Background

Mission of the organization

Lane is the Community's college. We provide quality, comprehensive, accessible, inclusive, learning-centered educational opportunities that promote equitable student success. Lane Community College defines mission fulfillment as the realization of meaningful goals, embodied by individual student achievement, a quality educational environment, accessible and equitable learning opportunities, and responsive community engagement. The College undertakes a regular review of pertinent data to determine the extent to which Lane has made progress towards these goals, as measured through a set of institutional indicators. The four mission fulfillment goals are:

- Community Service and Engagement
- Accessible & Equitable Learning Opportunities
- Quality Educational Environment
- Individual Student Achievement

Lane Community College is committed to sustainability and as part of this the college adopted sustainability as one of its core values and it is defined as:

- Integrating practices that support and improve the health of systems that sustain life
- Providing an interdisciplinary learning environment that builds understanding of sustainable ecological, social, and economic systems, concern for environmental justice, and the competence to act on such knowledge
- Equipping and encouraging all students and staff to participate actively in building a socially diverse, just, and sustainable society, while cultivating connections to local, regional, and global communities

Lane Community College has an official goal and formal commitment to achieve carbon neutrality and resiliency by the year 2050 or sooner as a signatory institution of the Climate Commitment with Second Nature. Reducing energy consumption that generates scope 1 and scope 2 emissions are a critical part of this commitment.
The College developed its first Climate Action Plan in 2011 outlining mitigation strategies for the generation of greenhouse gas in scopes 1, 2 and 3. After the original Climate Action Plan an updated version was released in 2018 called CAP 2.0. As part of this path the college develops yearly greenhouse gas inventories, sets reduction targets and tracks progress.
The College seeks continuous improvement on the mitigation efforts and their results. Climate Action Plan 3.0 is currently under development, this new and improved plan will be the road map to guide our efforts in the coming years. CAP 3.0 is scheduled to be released later in spring 2025.

Needs Lane Community College Addresses

For more than 50 years, Lane Community College has provided the community of Lane County and surrounding areas with high-quality education at an affordable cost. Lane Community College is committed to offering innovative programs. Our transfer programs enable students to complete their prerequisite courses and continue their education at a four-year institution. Lane Community College also offers English as a second language, Adult Basic Secondary Education and Continuing Education programming. All of these programs serve a fundamental need for this community of high-quality education at an affordable cost.

Lane Community College needs to be a fiscally responsible organization, this includes seeking efficiencies wherever possible without compromising the mission of the College. Every dollar that the college is able to save in capital construction is a dollar that can instead be diverted to instructional programs, hence better serving the organization's mission and the local community.

Population Lane Community College Serves

Lane Community College serves a diverse population of students from across Lane County. Approximately thirty percent of LCC students are from underrepresented populations that largely includes environmental justice communities. LCC also serves students from rural settings often with limited access to educational opportunities. LCC is a higher education institution that serves more non-traditional students when compared to 4-year institutions.

Current Programs Offered by Lane Community College

Lane Community College offers educational programs in the following areas of study:

For-credit programs:

- Arts and Communications
- Business and Office Professionals
- Computer Science and Information Technology
- Culinary, Hospitality and Tourism
- Health, Medical and Fitness
- Industrial Trades, Technologies, Transportation and Apprenticeship
- Science, Natural Resources, Math and Engineering
- Social Science, Social Services and Education

Non-credit programs:

- General Education Development
- Continuing Education
- English as a Second Language

Operating Budgets

Lane Community College operating budget for FY24 was $95,089,153. The FY25 proposed budget was $108,465,401.
This operating budget includes instruction, instructional support, student services, college support services, physical plant operations and maintenance and other uses.

In addition to the operating budget, Lane Community College also received a Bond measure approved by Lane County voters in May of 2020 for $121,500,000. These funds are being used for critical infrastructure improvements. For example, two new buildings, two buildings with major renovations and other critical infrastructure projects.

Project Description

The primary purpose of this renewable energy project is to reduce scope 2 greenhouse gas emissions from electricity consumption at LCC's main campus and to reduce operating costs. The project is directly aligned with EWEB's mission as it aims to enhance our community's electric services consistent with the values of the college, EWEB and the local community. One of the main project outcomes is to reduce the energy demand from LCC's main campus allowing that energy to be available for other EWEB customers.

In addition to reducing the energy consumption of LCC's main campus and freeing up energy resources in EWEB's electric grid, the project will provide visibility of EWEB's efforts to provide safe, reliable, low-cost power in an environmentally responsible manner. Students, employees and visitors to the campus will be able to see the systems and know it was made possible, in part because of EWEB's grant programs and commitment to advance the adoption of renewable energies.

During Fiscal Year 2024, LCC's main campus consumed a total of 9,492,000 kWh of electricity. Electrical demand for the main campus during that same year had an average of 1,880 kW per month, with the highest month of that year being July 2024 with a demand of 2,040 kW.

LCC's main campus currently has approximately 41 kW of photovoltaic renewable energy installed. The annual generation from these systems represents approximately 0.4% of the campus annual electrical consumption.
These systems are divided into three systems as described below:

Existing PV Systems LCC's Main Campus		
Estimated Generation (kWh/year)	Rated Capacity (kW)	Year Project Installed or Developed
32,600	34	2009
5,875	6	2011
1,120	1	2017

The college conducted an in-depth resource assessment as part of a ODOE C-REP planning grant awarded to Lane Community College in 2022. During this assessment, Lane Community worked alongside a team of experts that included electrical engineers, solar experts, electric vehicle infrastructure experts and micro-grid, energy storage experts. This assessment included several site visits to the campus, reviews of electrical, architectural and mechanical drawings. The campus energy loads were also evaluated. Accurate estimates of annual energy production for each proposed site were conducted using the AURORA simulation software and using site specific information gathered from site visits and review of site technical information.

The college has a goal of reaching 25% of electrical consumption being produced by renewable energy by the year 2050. This combines efficiency measures to reduce consumption with increasing solar electricity generation.

Proposed project details

For this Greenpower Grant project, LCC's team has identified one specific project site to be partially funded with this grant program with a total nameplate capacity of 11.6 kW (using EWEB's formula).

Proposed Project Site- Building 30

Located in the Northwest section of the main campus.
The exact project location is: 44.0037, -123.0203

The Health and Wellness Building was constructed in 2011, with a total of 43,255 square feet. This building was certified as LEED Gold in 2011. The building was made solar ready with an existing roof structure for a future PV array and conduit to the main electrical panel.
The building has a functioning solar thermal system with a rated capacity of 300 kBtu/hr.

The proposed system for this building is a 11.6 kW grid-tied photovoltaic array to be installed on the roof. The estimated total generation for this system is 16,311 kWh per year.

Tentative Equipment Selection

The solar photovoltaic system consists of an approximate total size of 11.6 kW. The system would potentially consist of approximately 24 Hanwha Q Cells monocrystalline solar panels of 485 Watts and 156 cells each and a voltage (VOC) of 53.63 V and a 12-year product warranty and 30-year performance warranty. The systems would also include a total of 1 string inverter, rated for outdoor applications and maximum efficiency of 97%. The inverter used will be UL certified. The brand is CPS model CPS SCA25KTL-DO/US-208-APS. The inverter has a 10-year standard warranty and optional extension up to 20 years. The photovoltaic system will also include a live solar monitoring webpage and a customized racking system

Population the Project Plans to Serve and How it will Benefit from the Project

This award will allow the college to advance the adoption of renewable energy installation on campus. The population served by the project includes all of the users of LCC's facilities, this includes college employees and all members of the community that regularly visit our main campus.
These populations will benefit from the project by having direct access to learning about renewable energy systems in their buildings. This feature will be included in campus tours and in classes as applicable.
LCC students will directly benefit from this project as the savings generated from this project will be funds that could be redirected into student programming and curriculum to better serve our students. These populations served will have additional encouragement to pursue solar electric installation at home and LCC staff can guide them based on lessons learned at LCC.

Strategies that will be employed to implement the project

LCC's plans to promote this renewable energy project widely to gather feedback from the campus community. For example, during the initial phases of the ODOE C-REP planning project, LCC held an open house on campus as well as a short survey to gather feedback would be the best approach. The Open House was held on October 3, 2023 on the LCC campus. A number of posters were created for the open house, and provided an overview of the scope of the planning project, the goals LCC has for renewable energy, an overall map showing which buildings were suitable for renewable energy, examples of the technologies being considered for the project, and the overall impact the project can have on the campus and surrounding community. Attendees were also invited to submit their feedback using an online survey with QR codes provided on all of the posters.

For the installation phase, the college plans to hold similar events with the users of the buildings and key stakeholders.

Project Evaluation

Lane Community College defines this project as a successful project by meeting the following criteria:

1. Installation of high quality, good functioning renewable energy systems, per the specifications listed in the Request for Proposal and within the specified budget and timeframe.
2. The new systems perform as intended in terms of electrical generation in kWh.

Metrics

LCC commits to tracking the following metrics as part of this project:

1. Total kWh generated per month for each system.
2. Dollar savings per year for all of the new solar electricity systems.
3. Track and document lessons learned

We are confident that LCC will be successful in achieving these criteria for a successful project because of our extensive experience in project management and successfully designing and implementing complex infrastructure projects. Including previous installations of renewable energy systems campus.
LCC is a supporter and advocate of renewable energy projects that are in line with the College's commitment to become carbon neutral by the year 2050. LCC installed its first solar electric project in 2009, installing a 34 kW PV system on the West section of the main campus; this project was completed with support from a grant from EWEB.

After project completion LCC will develop a preventive maintenance plan with assigned responsible individuals to monitor system performance.

Expected project results at the end of the funding period

After the funding period LCC will have a fully operational solar electric system totaling approximately 11.6 kW of capacity that is capable of generating 16,311 kWh of electricity annually to offset the amount of electrical energy necessary to operate LCC's Main Campus by approximately 0.6% per year.

To have a renewable energy system that can be showcased to LCC students and to the Lane County community as an example of a successful renewable energy project.

Methodology for measuring project's effectiveness

LCC has a dedicated full-time staff person that tracks and analyzes the energy consumption of college facilities. This person will be tracking energy generation for this system on a monthly basis to verify the system is generating energy as originally intended.

Project Budget

Project Budget Line Items	
Building 30 (Health & Wellness Building) 11.6 kW Photovoltaic system	
Item	**Amount**
Components, Materials and Supplies	$42,464
Design/Engineering	$4,000
Labor/Project Management	$41,841
Permitting, Interconnection & Other Fees	$695
Project Budget Total	**$89,000**

The college can contribute the remaining balance after the $50,000 grant award in order to complete this project. The college has reserved $50,000 for this project from the 2020 Bond measure. Obtaining funds such as the $50,000 from EWEB's Greenpower Grant are critical funds to accomplish a complete and successful project and to further the college sustainability goals.

Project Timeline

Timeline for the various facets of the project

- Notice of award: April 2025
- Execution of grant agreement with EWEB: June 2025
- Bid documents finalized: September 2025
- Bids due and vendor selected: October 2025
- Procurement complete: November 2025
- Order materials: December 2025
- Start installation/construction: June 2026
- Complete installation/construction: September 2026
- Commissioning: October 2026
- Utility inspection &/or interconnection: December 2026