

Strategic Energy Management

2023/2024 Impact Report

Central Oregon Community College

CENTRAL OREGON COMMUNITY COLLEGE

March 31, 2024

1. Executive Summary



Central Oregon Community College, 2600 NW College Way Bend, OR 97703. Year 5.

Central Oregon Community College (COCC) excelled in their 2023-2024 program year of Strategic Energy Management (SEM) thanks to dedication and efforts of its energy team. Highlights include conducting two energy audits at the Veterinary Technology Center, establishing a new workorder system, and achieving four SEM milestones. In the 2024-2025 program year, the team will continue to pursue energy-saving initiatives, engage building occupants, and delve deeper into data analysis.

COCC earned \$4,098 in incentives in the 2023-2024 program year. We look forward to their continued SEM leadership in 2024-2025.

SEM Program Incentives				
	Milestone Incentive Amount	Intern Incentive Amount	Energy Savings Incentive Amount	Total
Year 1 (2019/2020)	\$5,000	\$6,565	\$2,117	\$13,682
Year 2 (2020/2021)	\$4,000	\$0	\$1,179	\$5,179
Year 3 (2021/2022)	\$5,000	\$3,091	\$1,530	\$9,621
Year 4 (2022/2023)	\$5,000	\$0	\$1,439	\$6,439
Year 5 (2023/2024)	\$4,000	\$0	\$98	\$4,098
Total	\$23,000	\$9,656	\$6,363	\$39,019

2. Energy Savings Summary



Energy savings are calculated with meter-level energy models in the Energy Performance Platform (EPP). Energy models can be seen here: [Link](#)

Overall, Central Oregon Community College did not achieve electricity energy savings this year and 14.4% natural gas energy savings compared to their baseline annual energy consumption. The following table shows Program Year 2023 savings, and below the tables are notes describing what each column represents.

	Electric Baseline (kWh)	SEM Incremental Electric Savings (kWh)	Gas Baseline (therms)	SEM Incremental Gas Savings (therms)	Total Incentive
Redmond Veterinary Technology Center	43,107	0	1,643	0	\$0
Prineville Campus	64,898	0	2,110	488	\$98
Grand Total	108,005	0	3,753	488	\$98

Electric/Gas Baseline is the annual energy use during the period prior to the program/model start date.

SEM Incremental Savings includes savings specific to SEM activities that occurred in the current engagement year (does not include capital savings). For continuation participants, this is your incremental incentivized savings that exceed SEM savings from previous years.

Total Incentive is the SEM Incremental Savings (kWh) x \$0.02 plus SEM Incremental Savings (therms) x \$0.20.

3. Program Highlights



Despite limitations in SEM site enrollment due to retro commissioning considerations, COCC remained engaged in SEM at the Veterinary Technology Center thanks to the combined efforts of its energy team. Highlights of the year include continued regard for SEM in the development of the college's Climate Action Plan, fruitful energy audits and projects, and a new workorder system with the potential to support SEM efforts.

Key Performance Indicators	
Milestones Achieved:	
<input checked="" type="checkbox"/> Annual Energy Plan	<input checked="" type="checkbox"/> Operational Efficiency
<input type="checkbox"/> Staff Training	<input checked="" type="checkbox"/> Executive Sponsor Engagement
<input checked="" type="checkbox"/> Energy O&M Projects <i>10 / 20 complete</i>	
Number of Workshops/Webinars Attended	4/7
Number of Operations Calls Attended	10/10
Number of Energy Performance Platform Projects Completed	23
Treasure Hunts Conducted	None
EMA Total Score / Previous Score	22% (2023) / 30% (2021)

- Organizational Activities
 - Successes
 - Noelle Bell Copley tabled at the college's Fall Kickoff event to spread awareness about SEM. The energy team would like to expand its engagement efforts to bi-

- annual initiatives. Examples include inviting students to minimize plug loads on Halloween and reviewing energy management as a part of regular safety audits.
- Tally Annette Nelson joined the energy team in the Fall of 2023 as a Master's student in Environmental Science with Oregon State University. Tally reviews the college's energy usage and has already identified minor anomalies for the team to investigate further. Noelle and Tally are also collaborating closely on the college's Climate Action Plan.
 - Josh Clawson, Director of Campus Services, discussed the importance of reducing energy waste in the Winter 2023 edition of the COCC Sustainability Committee Newsletter.
- Challenges
 - Noelle Bell Copley continues to advocate for a Green Revolving Fund which would help the college to reinvest energy savings into future energy projects. The college's Green Fee for renewable energy could serve as seed money for the fund.
 - COCC decided to pause its participation in the SEM Intern incentive offering but plans to bring Tally on as an intern in the 2024-2025 program year.
 - Progress
 - COCC continues to develop its 5-year strategic Climate Action Plan. The energy team has committed to reporting on energy consumption for their management team at least twice a year. They also identified an opportunity to inform the Vice President of Finance on past energy performance and cost savings.
 - COCC is working to hire an Assistant Director of Campuses (Maintenance Supervisor) who will have energy efficiency integrated into their job description. This new team member would have the expertise to review the college's building management systems.
- Technical Activities
 - Successes
 - The facilities team at the Veterinary Technology Center took several actions to optimize the building's operations. Completed projects include auditing lighting and thermostat schedules, HVAC preventative maintenance, lighting upgrades, and implementing unoccupied modes for summer 2023.
 - Noelle Bell Copley, Josh Clawson, and Moises Viramontes identified several energy-saving opportunities with two energy walkthroughs at the Veterinary Technology Center. Examples include occupancy shutdowns, lighting upgrades, occupancy sensors, and pipe insulation.
 - Challenges
 - The majority of COCC's buildings were not enrolled in SEM for the 2023-2024 program year due to ongoing retro commissioning or custom control projects as part of the Existing Building Program. The energy team focused its efforts on saving energy at the Veterinary Technology Center.
 - Access to energy usage trends in the EPP was delayed due to changes in meter numbers. This issue was resolved in early 2024 which allowed the energy team to resume energy analysis.
 - Progress
 - COCC's new workorder system, SysAid, offers several features that will support the college's SEM efforts including the ability to track assets, provide more granularity, run reports, and add tags. The energy team identified an opportunity

to personally address comfort-related work orders as another opportunity to spread awareness with occupants about SEM.

- Noelle Bell Copley calculated the site Energy Use Intensity (EUI) for the Veterinary Technology Center, setting a goal to achieve the median EUI of 52.4 in the next year.

4. Participant Energy Team



Energy Champion: Noelle Bell Copley, Sustainability Coordinator.

Executive Sponsor: Josh Clawson, Director of Campus Services

Team Member: Kelly Ruebush, HVAC Specialist.

Team Member: Moises Viramontes, Building Maintenance Specialist.

Team Member: Brian Flener, Building Maintenance Specialist.

Team Member: Jeremy Green, Madras Campus Administrator.

Team Member: Suzie Kristensen, Prineville Campus Administrator.

Team Member: Tally Annette Nelson, Master's Student with OSU.

Noelle Bell Copley continues to lead COCC's energy team as Energy Champion with the support of Josh Clawson as Executive Sponsor, Tally Annette Nelson for energy analysis, and COCC's diligent facilities team for project implementation. Noelle and Tally highlight the importance of energy management as the college develops its 5-year Climate Action Plan. Josh leverages his role to spread awareness about energy efficiency and align campus sustainability efforts with offerings from the Energy Trust of Oregon. The facilities team expertly identified and implemented energy projects at the newly enrolled Veterinary Technology Center. The team is also anticipating the addition of an Assistant Director of Campuses (Maintenance Supervisor) with expertise to review the college's building management systems.


Phases below reference Tuckman's stages of team development. The forming-storming-norming-performing model of group development proposes that each phase is necessary and inevitable for the team to grow, face challenges, tackle problems, find solutions, plan work and deliver results.

Due to the continued involvement of COCC's energy team members, energy coaches consider their energy team to be in the Performing phase of Bruce Tuckman's Forming-Storming-Norming-Performing model. The team has demonstrated a shared commitment to SEM, providing the momentum that will carry them forward into the 2024-2025 program year.

Energy Team Phase

<input type="checkbox"/> Forming	<input type="checkbox"/> Storming	<input type="checkbox"/> Norming	<input checked="" type="checkbox"/> Performing	<input type="checkbox"/> Reforming
----------------------------------	-----------------------------------	----------------------------------	--	------------------------------------

5. Plans for Future Success



Central Oregon Community College remains committed to saving energy as demonstrated by the continued dedication of its energy team members. In the 2024-2025 program year, they will leverage the new work order system to track SEM projects, explore opportunities to raise awareness about energy management among building occupants and delve deeper into data analysis through the EPP.

- Expand the energy team’s reach across campus with bi-annual engagement initiatives. Align these efforts with the 2024 Occupant Engagement milestone, which outlines opportunities to conduct awareness campaigns, host site walks, or run competitions between building occupants.
- Review energy models with coaches during monthly energy team meetings to identify trends and anomalies in energy usage. Report energy usage to management bi-annually as part of the Climate Action Plan.
- Track energy-saving projects in the work order system with an “energy” tag. Review task reports quarterly to ensure the facilities team’s efforts align with the Annual Energy Plan.
- Continue to partner with the facilities team to implement energy-saving projects at the Veterinary Technology Center and achieve the median Site Energy Use Intensity (EUI) of 52.4.

This report was prepared by:

Melody Kim
571.314.1002
mkim@aesc-inc.com