

**Strategic Energy
Management
2023 Impact Report
Oregon Institute of
Technology**

OREGON INSTITUTE OF TECHNOLOGY

December 31, 2023

1. Executive Summary



Oregon Institute of Technology, 3201 Campus Drive, Klamath Falls, OR 97601. Year 4.

In 2023, the Oregon Institute of Technology (OIT) persevered in the Strategic Energy Management (SEM) program while overcoming significant transitions on the energy team. In 2023, OIT reviewed organizational practices and building management systems for energy-saving opportunities to set several projects into motion. Thanks to renewed executive support, the energy team is well-positioned for success in 2024 with plans to clarify roles and renew engagement of students, staff, and campus committees with SEM efforts.

The Oregon Institute of Technology earned \$0 in incentives in 2023. We look forward to their continued SEM leadership in 2024.

SEM Program Incentives				
	Milestone Incentive Amount	Intern Incentive Amount	Energy Savings Incentive Amount	Total
Year 1 (2020)	\$2,000	\$0	\$18,500	\$20,500
Year 2 (2021)	\$1,500	\$0	\$4,156	\$5,656
Year 3 (2022)	\$1,000	\$0	\$2,383	\$3,383
Year 4 (2023)	\$0	\$0	\$0	\$0
Total	\$4,500	\$0	\$25,039	\$29,539

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: [OIT EPP link](#).

Oregon Institute of Technology did not achieve electricity energy savings or natural gas energy savings compared to their baseline annual energy consumption. The following table shows enrolled site baseline annual energy consumption against 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
Campus Wide	5,543,594	0		0	\$0
Grand Total	5,543,594	0		0	\$0

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



OIT has positioned itself for success in 2024 thanks to the continued dedication of Energy Champion Jim Lake and Backup Energy Champion Jessica Barnett and a renewed commitment from executive leadership. Coaches collaborated with the team throughout the year to identify organizational and technical energy-saving opportunities, which are within reach now that the team has strong executive support.

Key Performance Indicators	
Milestones Achieved:	
<input type="checkbox"/> Annual Energy Plan	<input type="checkbox"/> Operational Efficiency
<input type="checkbox"/> Staff Training	<input type="checkbox"/> Executive Sponsor Engagement
<input type="checkbox"/> Energy O&M Projects 0 /20 complete	
Number of Workshops/Webinars Attended	1/7
Number of Operations Calls Attended	10/11
Number of Energy Performance Platform Projects Completed	8
Treasure Hunts Conducted	1 Treasure Hunt, 1 BMS Review
EMA Total Score / Previous Score	23% (2023) / 8% (2020)

- Organizational Activities
 - Successes
 - In September 2023, OIT's energy team successfully engaged John Harman, the Vice President of Finance and Administration, and Michelle Meyer, the Director of Audit and Compliance. They are committed to SEM and capable of facilitating connections between faculty, the Facilities Planning Committee, and the Sustainability Committee. As a first positive step, they invited Helen Drewel to join the energy team as a project manager.
 - OIT completed an Energy Management Assessment (EMA) with coaches, resulting in a comprehensive report with recommendations for the energy team to pursue in 2024.

- Challenges
 - After the departure of the prior Energy Champion and a key faculty member from OIT in 2022, the energy team lacked members that had the ability to influence students, faculty, and administration.
 - With Energy Champion Jim Lake and Backup Energy Champion Jessica Barnett being the only active energy team members for the majority of 2023, they did not have the bandwidth to pursue organizational projects due to prioritizing their daily job responsibilities at OIT.
- Progress
 - OIT is interested in hiring an SEM intern who can balance energy team workloads. They are also exploring the possibility of building a pipeline to identify students who can support other participants in Southern Oregon as interns.
 - The energy team plans to update the OIT website to feature a new Sustainability section and feedback form. Helen Drewel, the marketing team, and coaches will collaborate to update the Strategic Energy Management page and include the latest SEM Impact Report.
- Technical Activities
 - Successes
 - In May 2023, the energy team, along with coaches, reviewed the building management system (BMS), identifying several energy-saving opportunities for investigation in 2024. The team adjusted the BMS for appropriate heating and cooling schemes across several buildings.
 - OIT hired Johnson Controls to walk through the Learning Resources Center and assess indoor air quality. This resulted in a report with additional energy-saving projects for the facilities team to pursue.
 - Challenges
 - The entire campus is on one metering system, making it difficult to identify energy usage trends and savings opportunities for specific buildings using models in the Energy Performance Platform.
 - Due to the energy team's limited bandwidth, it was challenging to plan, track, and assess energy projects on a regular basis.
 - Progress
 - OIT has an opportunity to submeter key systems and buildings or use interval data from Pacific Power which would open doors for more accurate measurement and verification of their energy performance.
 - With an energy team that has now doubled in size, Jim, Jessica, and the greater facilities team will have more time to track and implement energy-saving projects.

4. Participant Energy Team



Energy Champion: Jim Lake, Maintenance Supervisor.

Back-up Energy Champion: Jessica Barnett, Fiscal Coordinator.

Executive Sponsor: Thom Darrah, Director of Facilities Management Services.

Energy Team Member: John Harman, Vice President for Finance and Administration.

Energy Team Member: Michelle Meyer, Director of Audit and Compliance.

Energy Team Member: Helen Drewel, Executive Assistant and Project Manager.

Energy Team Member: Frank Maier, HVAC.

Energy Team Member: Keith Hill, Cogen Power Plant Operations.

Maintenance Supervisor and acting Energy Champion Jim Lake and Back-up Champion Jessica Barnett have maintained a strong commitment to SEM for years despite the ongoing challenge to secure additional team members. Other facilities staff were also engaged and helpful at various times in 2023 as the team worked on projects on their opportunity register and dedicated as much time as they had available while searching for additional support.

In early fall of 2023, the team found the support they were looking for with John Harman, Vice President for Finance and Administration, Michelle Meyer, Director of Audit and Compliance, and Helen Drewel, Project Manager. The addition of these members places the team in the “Forming” stage of Tuckman’s stages of team development, where they will continue to clarify goals, roles, and processes in SEM.

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.

Energy Team Phase

<input checked="" type="checkbox"/> Forming	<input type="checkbox"/> Storming	<input type="checkbox"/> Norming	<input type="checkbox"/> Performing	<input type="checkbox"/> Reforming
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6. Plans for Future Success



The Oregon Institute of Technology remains committed to energy conservation, as evidenced by the steadfast and growing dedication of its energy team members. In 2024, they will persist in building a solid foundation for their energy team, exploring opportunities to raise awareness about energy management among building occupants, and delving deeper into data analysis through the Energy Performance Platform.

- With the newly formed energy team, collaborate on an Annual Energy Plan for 2024, drawing on opportunities identified during the 2023 Energy Management Assessment. Review the plan on a quarterly basis to track progress and adjust priorities.
- Identify and onboard an SEM intern in 2024 to support the Energy Champion with tracking energy projects, analyzing models, and achieving SEM milestones.
- Review energy models with coaches during monthly energy team meetings to identify trends and anomalies in energy usage. Formalize a system to track energy-saving projects throughout the year.
- Take advantage of the 2024 Occupant Engagement Milestone to explore avenues for engaging occupants and encourage collaboration between stakeholders. Engagement activities can include running an awareness campaign, inviting stakeholders to a daytime or nighttime treasure hunt, or hosting a competition between occupants.

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