

Report to Board of Trustees

Oregon Tech Board of Trustees

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John A. Harman, MBA, CGMA,
CMPE | VP Finance &
Administration



Report Topics

4.1 Oregon Tech 2023 Legislative Priorities

- Public University Support Fund (PUSF)
- Engineering and Technology Sustaining Fund (ETSF)
- 1% Sports Lottery
- Applied Computing and Rural Health Initiatives
- Capital Project Funding Requests
- 75th Anniversary Oregon Tech Proclamation
- Geothermal Emergency Funding

4.2 Klamath Falls Campus Geothermal System Update

- Background and Status
- Traditional Capital Funding Pathways
- Pathway for Emergent Funding Request

4.3 2023 Legislative Outlook

- New governor and legislators
- What to expect

Oregon Tech 2023 Legislative Priorities

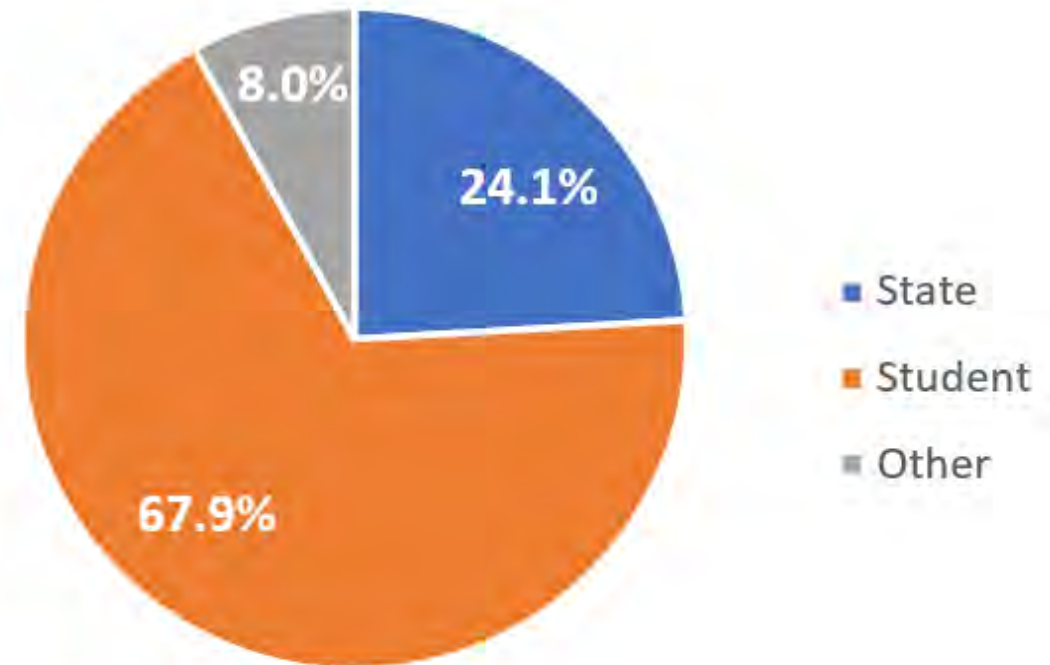


Consolidated Higher Education Funding Request (all Higher Ed.)

Public University Support Fund (PUSF)

- Increase funding by \$150M from \$900M to \$1.05B (17% increase).
- Public universities' continuous spending levels (CSL) require 8.67% (\$78M) increase just to cover inflation on current salaries, benefits and general operations.
- Oregon is 45th in the nation in spending per student at four-year institutions.
- Students have greater needs than ever before. It is essential for the state to support investments to continue wrap-around services that meet the growing needs of universities' increasingly diverse student populations.
- A \$1.05B budget allows universities to make higher education more attainable by minimizing the burden on students to pay for growing costs/inflation and would allow most universities to keep tuition increases at or below 5%.

Oregon Public University Education Revenues



Other Key State Appropriations

**Engineering Technology
Sustaining Fund**
(all Higher Ed.)

- Requesting \$31,486,740
(8.67%+)

**Oregon Renewable Energy
Center**
(OT specific)

- \$615,056 (8.67%+)

Sports Lottery
(all Higher Ed.)

- 1% of lottery revenues
dedicated to higher education

**Renew Applied
Computing and Rural
Health Initiatives Funds**
(OT specific)

- \$3M (-45%)

**Continue Benefits
Navigators**
(all Higher Ed.)

- (8.67%)

Continue Strong Start
(all Higher Ed.)

- (64%)

**Geothermal Emergent
Funding**
OT specific
\$17.9 million

Capital Projects Funding

- Nearly half of the state's capital assets are on public university campuses and half of those buildings are over 30 years old. Rising maintenance costs have created a backlog of essential repairs that impact the ability to provide important programs and services to students.
- Capital investments are essential to ensure public universities can undertake construction projects that also provide family-wage jobs across the state and allow Oregon to produce the graduates that will carry our state forward.
- Requesting \$90 million in Capital Improvement and Renewal (CIR).
- Requesting \$488.2 million in Capital Construction.

HECC Public University Capital Request					
2023-25 HECC University Capital Request (in millions)					
Article XI-Q		\$ 472.6			
Article XI-G		\$ 105.6			
		\$ 578.2			
INSTITUTION	PROJECT	XI-Q	XI-G	TOTAL STATE	XI-F
ALL	Capital Improvement and Renewal	90,000,000	-	90,000,000	-
UO	Friendly Hall Deferred Main Renovation Project	67,887,000	7,543,000	75,430,000	-
OSU	Collaborative Innovation Complex	-	75,000,000	75,000,000	-
PSU	Phase III of Gateway Project for Art + Design and Vernier Science Center	54,725,000	4,275,000	59,000,000	16,000,000
WOU	Health Sciences Renovation	42,217,310	-	42,217,310	-
SOU	Central Hall Phase III	14,100,000	-	14,100,000	-
SOU	Creative Industries/Student Success and Leadership Center	40,900,000	-	40,900,000	-
OIT	Learning Resource Center Renovation	25,200,000	1,400,000	26,600,000	-
EOU	Lozo Hall Renovation Phase II	37,325,600	-	37,325,600	-
WOU	Center for Human Achievement, Movement & Performance Renovation (CHAMP)	27,805,050	-	27,805,050	-
OIT	Simon Hall Renovation	19,800,000	1,100,000	20,900,000	-
OSU-C	Health Sciences and Recreation Center	30,000,000	15,000,000	45,000,000	-
OIT	Center for Student Success	22,680,000	1,260,000	23,940,000	-
PSU	Smith Memorial Student Union Major Repair Project	-	-	-	8,200,000
	Subtotals	472,639,960	105,578,000	578,217,960	24,200,000

Capital Funding Priority #1: Center for Student Success

- New construction to be located on Klamath Falls campus (36K GSF).
- Comprehensive student resources building, centrally located for accessibility and improved logistics within the student life corridor.
- Supporting strategic plan pillar “*Commitment to Student Success*” and focused on enhancing the quality and diversity of the student experience.
- Currently, student academic and support services are decentralized across the campus among four separate buildings.
- By consolidating student support services, the student experience will be enhanced through improved services alignment creating essential synergies.
- Includes: strategic enrollment management (admissions, academic advising, retention, educational partnerships, outreach, financial aid), registrar, disability services, veterans’ services and student success services (tutoring, supplemental instruction, testing, TRiO), career services, student accounts and cashiering services.



Total Project	\$25.2M
State Funding	\$23.9M (\$22.6M XI-Q, \$1.3M XI-G)
University Match	\$1.3M

Capital Funding Priority #2: Learning Resource Center Renovation

- This renovation will completely modernize the 36K GSF Learning Resource Center (LRC) built on the Klamath Falls campus in 1980.
- Full interior renovation of classrooms, labs, recording studios supporting remote teaching and distance learning classes, student workstations, faculty workspaces for professional development and research and the IT helpdesk.
- Improvements to ADA accessibility, sidewalks, outdoor learning demonstration space, transportation, building mechanical, electrical and plumbing systems, building envelope and seismic retrofit.
- Critical academic services in the building include collaborative and small group workspaces for students, student computer labs, office of scholarships and information technology support services (ITS).
- The renovation will transform the antiquated building and layout into a collaborative and welcoming learning environment that meets the needs of the increasingly diverse student body.



Total Project	\$28.0M
State Funding	\$26.6M (\$25.2M XI-Q, \$1.4M XI-G)
University Match	\$1.4M

Capital Funding Priority #3: Semon Hall Renovation


- The renovation project will modernize this 36K GSF educational building built in 1965 on the Klamath Falls campus and that is in serious need of life safety upgrades.
- Includes full remodel and modernization of student dental clinic classrooms and labs. Also, includes replacement of mechanical, electrical and plumbing systems, improvements to ADA accessibility, transportation and seismic building retrofit.
- Supports Higher Education Coordinating Commission's 2016-20 Strategic Roadmap, with particular focus on Pathways, Student Support, Affordability and Community Impact Strategies.
- Houses most general educational programs including; humanities, social sciences and communications. Also contains the dental hygiene program and clinic where students receive experiential training and provide low-cost dental care for Klamath Falls-area patients.
- Semon Hall also houses essential programs in marriage and family therapy as well as population health management.



Total Project	\$22.0M
State Funding	\$20.9M (\$19.8M XI-Q, \$1.1M XI-G)
University Match	\$1.1M

Oregon Tech 75th Anniversary Proclamation

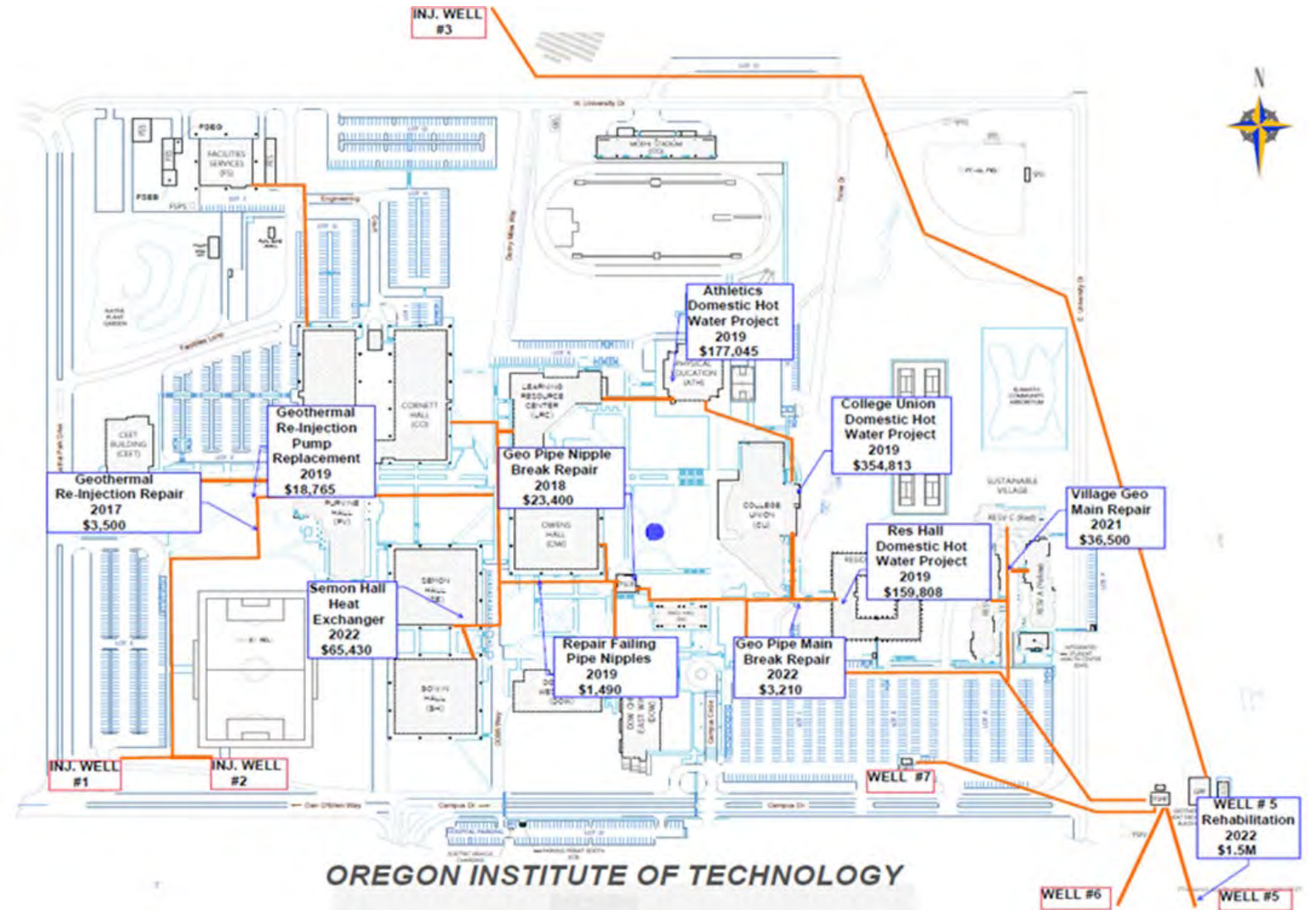
- Recognize and celebrate Oregon Tech's long history as ***Oregon's Polytechnic University*** along with its many contributions to higher education and research in the state as well as workforce development.
- Two pathways for proclamation:
 - Submit request directly to the governor.
 - Submit bill through legislature for Joint Resolution approval by legislative and then advanced to the governor for signature.
- Going through the legislature offers the best opportunity for bipartisan recognition.
- Going through the legislature is a longer process and will require sponsors from both Senate and House to introduce the bills.
- Great opportunity for legislators to publicly recognize and champion the mission of Oregon Tech.
- University leaders will draft a document to be fashioned into a bill to be submitted during the session for a vote in both houses and then sent to conference.
- If approved, the formal proclamation will be sent to the governor for signature during a formal public event also attended by members of the Board and President Naganathan



Klamath Falls Campus Geothermal System Update

Klamath Falls Campuswide Geothermal System

OREGON
TECH



OREGON INSTITUTE OF TECHNOLOGY

Geothermal System Background and Status

- Oregon Tech's Klamath Falls campus is unique among Oregon's 7 public universities in that it utilizes a renewable geothermal resource as its core infrastructure for heating and hot water.
- The campus features a series of deep-water geothermal production wells and reinjection wells, an extensive network of delivery piping and tunnels, building heat exchangers and geothermal transfer stations that are mostly 60 years old.
- There has been an escalating frequency of breakdown and service disruption in the past few years as there are significant deficiencies and aging components presenting multiple points for risk of failure as noted by Fluent Engineering, Inc.



Sept. 2022- Corroded and failed building heat exchanger unit causing temporary building closure.

In just two years,
Oregon Tech has
invested nearly
\$2.4 million in
emergent repairs

- Since Oregon Tech is the only public University in Oregon to have this geothermal infrastructure, the CIR formula as configured could never adequately fund maintenance and repairs for this unconventional system.



June 2022- Ruptured main line causing temporary campus closure.

campus heating and basic utilities.

- A major and pervasive failure in the system is imminent (as cited by the engineering firm) and when it occurs will be emergent and will require complete campus closure, leaving students and staff displaced and with uncertainty for an indefinite period since there is no alternative heating system.

- The CIR funding formula is based primarily on adjusted E&G GSF, replacement value of buildings/structures along with a density factor but does not contemplate the exclusive elements in a campus geothermal infrastructure.

- Ongoing failures related to system age are causing periodic building and/or campus shutdowns for repairs as well as disruption of



Sept. 2022- Main pipe from Well #6 ruptured at building foundation, causing closure.

Significant Investment Required to Avoid System Shutdown

To prevent life safety risks, total system failure and campus closure, a \$17,956,151 investment of emergency state funding is requested

Major elements of the geothermal heating system and the consequence of failure:

Production and Injection Wells (Geothermal Wells)

- Loss of both production wells would result in no heating water to campus.
- Loss of just one well would substantially reduce system capacity and could result in freezing conditions in one or more buildings.
- Loss of electrical power at the wells would disable the pumping system resulting in the inability to distribute heat to the buildings.

Geothermal Mechanical Building (Heat Exchanger Building)

- Loss of the GEO storage tank and piping system can lead to inability to heat campus buildings; there is no backup or standby heating system.



June 2021- Valve and pipe failure causing temporary residence hall closure.

Aging 6 decades old system



Winter-Spring 2022- Well #5 shut-down due to corrosion and failing pipes putting campus at risk of closure.

Geothermal Distribution System (Distribution Piping)

- Loss of supply piping system can lead to inability to heat campus buildings; there is no backup or standby heating system.
- Loss of a section of piping or fitting leak can result in loss of the entire system due to a lack of isolation capacity and alternate flow routing.
- Leaks in the tunnels can lead to personnel life safety risks due to the high temperature and confined space.
- Large leaks in the tunnels can lead to building or electrical service flooding.



Spring 2022- Corroded and compromised Well #1.

Campus Main Electrical Gear and Distribution System (Building Heat Exchange System)

- The loss of building heat exchange systems will directly impact the ability to heat and use the effected building(s); there is no backup or standby heating system.
- A planned renovation of building heat exchange systems will allow work to be scheduled for the summer months to not adversely affect building use.

Geothermal System – Campus Snowmelt System

- Reduce the cost of snow/ice removal and limit campus closures due to winter weather conditions.
- Reduce the risk of potential injuries.

Timeline for Project Investment and Completion

Phase	Date	Component	Cost	Total Phase Cost
Phase 1	Summer 2023	Rehabilitation of production and injection well	\$ 3,066,153	\$ 5,750,388
		Renovation of campus heat exchange systems	<u>2,684,235</u>	
Phase 2	Summer 2024	Renovation of geothermal distribution system	6,463,782	7,847,334
		Renovation of building heat exchange systems	<u>1,383,552</u>	
Phase 3	Summer 2025	Replace and expand campus snowmelt systems	2,038,097	<u>4,358,429</u>
		Relocate and replace campus main electrical distribution switchgear	<u>2,320,332</u>	
Total Cost, Phases 1 - 3				<u>\$ 17,956,151</u>

It is important to note that over the years, Oregon Tech has consistently invested in maintaining its extensive geothermal infrastructure through a combination of CIR and other university funds. It is only now after 6 decades of continuous use that failure points are beginning to escalate due to the overall age of the entire system. Efficiencies from this renewable resource were not accrued in a reserve, but as with other achieved operational efficiencies allowed Oregon Tech to invest more in academic programs and student support services.

Multi-year
project

Conversion to Alternate Energy Models is Cost Prohibitive

A. Natural Gas System

- Estimated Initial Capital Cost: \$15,000,000
- Est. Annual Maintenance Cost: \$300,000 in year 1
- Estimated Utility Cost: \$710,000 in year 1
- Capital Renewals:
 - \$10,000,000 spent in year 20 for boiler and other system replacements
- **Net Present Value: -\$37,000,000**

B. Electric System

- Estimated Initial Capital Cost: \$20,000,000
- Est. Annual Maintenance Cost: \$400,000 in year 1
- Estimated Utility Cost: \$1,170,000 in year 1
- Capital Renewals:
 - \$10,000,000 spent in year 20 for boiler and other system replacements
- **Net Present Value: -\$53,000,000**

C. Existing Geothermal System

- Estimated Initial Capital Cost: \$18,000,000
- Est. Annual Maintenance Cost: \$180,000 in year 1
- Estimated Utility Cost: \$20,000 in year 1
- Capital Renewals:
 - \$100,000 spent in year 10 for pump and other system replacements
 - \$125,000 spent in year 20 for pump and other system replacements
 - \$150,000 spent in year 30 for pump and other system replacements
- **Net Present Value: -\$22,000,000**

D. Additional Benefits of keeping the geothermal system:

- No decommissioning costs of old system
- No direct greenhouse gas emissions
- No fire or explosion hazards
- Fewer campus interruptions from new utility installations
- Existing system is known to maintenance staff
- Geothermal system can pay for its own operation with the use of existing powerplants

A photograph of the San Francisco City Hall at night. The building is illuminated with warm white lights, highlighting its classical architecture, including the large central dome and the portico with columns. The sky is a clear, deep blue. A white car is visible on the street in the lower left corner. A large, curved white graphic element separates the image from the text on the right.

2023 Legislative Outlook

Gubernatorial Election Results

- Former House Speaker Tina Kotek, D-Portland, is the Governor Elect.
- Kotek is assembling her transition team; led by University of Oregon Board Secretary Tim Inman, who is taking a leave of absence to assist Kotek.
- Kotek announced Andrea Cooper will be her Chief-of-Staff.
See: <https://www.oregonlive.com/politics/2022/12/gov-kate-browns-deputy-chief-of-staff-andrea-cooper-will-stay-on-to-lead-gov-elect-tina-koteks-administration.html>
- In the coming weeks, Kotek and staff will prepare the Governor's Recommended Budget due February 1, 2023.

Legislative Election Results

- Republicans failed to reach expectations, but did gain one seat in the Senate and two in the House, thus ending Democrats' 3/5 supermajorities in both chambers.
- 3/5 of the legislature must approve all revenue raising measures (tax increases), thus Democrats no longer have unilateral capacity to raise taxes and will need support of Republicans to do so.
- Democrats still enjoy large majorities in both chambers. In the Senate, there are 17 Democrats and 13 Republicans. In the House Democrats lead 35-25.
- Given the large majorities Democrats enjoy and a fellow Democrat in the Governor's Office, political observers believe Democrats will continue pursuing a progressive legislative agenda.

2023 Legislative Session Themes

- Major attrition, particularly in the House where 29 of the 60 members have never served in the Legislative Assembly, will have a pervasive impact on the session as members learn their new roles.
- More than 2/3 of the Assembly will have no experience in Salem beyond virtual legislative session during COVID and will need to adjust to in-person interactions with the public.
- Access to the State Capital will remain restricted as the renovation project continues on the building. No access to the rotunda, House and Senate chambers/galleries. Hearing room space is limited.
- Access is available to the House and Senate wings, where member offices are located and it is anticipated hearings will be held in person.

2023 Legislative Leadership

- House: Rep. Dan Rayfield, D-Corvallis, will return as House Speaker.
 - Replaced Tina Kotek in January of 2022. A policy-oriented legislator whose district include OSU.
 - Rep. Julie Fahey, D-Eugene, returns as House Majority Leader.
 - Rep. Vicki Breese Iverson, R-Prineville, will return as Minority Leader.
- Senate: Previous Majority Leader Rob Wagner, D-Lake Oswego, is the new Senate President nominee.
 - Freshman Sen. Kate Lieber, D-Beaverton, will be new Majority Leader.
 - Sen. Tim Knopp, R-Bend will return as Minority Leader.

What's next?

- Committee Formation & Member Assignments:
 - Speaker and President-nominee have met to discuss House and Senate Committee formation.
 - Reports indicate there may be fewer committees and perhaps more joint House/Senate committees to accommodate reduced hearing room space.
 - Announcement of committee chairs and assignments expected in late December or early January.
- Speaker Rayfield is considering a new Higher Education Committee in the House
- The 2023 Oregon Legislative Session will convene January 17th and conclude with Constitutional sine die on June 25th.
- Pre-session filed bills are not expected to be available to the public until the week prior to the start of session.

END PRESENTATION