

September 12, 2025

K.D. Chapman-See, Director Office of Financial Management 300 Insurance Building P.O. Box 43133 Olympia, WA 98504-3113

#### **Uploaded to OFM MFT Website**

#### SUBJECT: UW - 2026 Supplemental Capital Budget Request

Attached please find the University of Washington's 2026 Supplemental Capital Budget Request.

We are formally requesting \$47.5 million from the Climate Commitment Account 26-C for design and construction work associated with our **Power Plant Electrification & Campus Hot Water Loop – Phase 1.** 

This "proof of concept" project has two specific goals: (1) immediate reductions in greenhouse gas (GHG) emissions by supplementing the existing Seattle Campus steam heating system with an electrode boiler powered by Seattle City Light's clean energy grid, and (2) supporting the University's path to compliance with the state's Clean Building Performance Standards and decarbonization requirements.

Highlights of this project include:

- A **6-megawatt electrode boiler** providing carbon-free steam to serve the campus and immediately reducing greenhouse gas emissions.
- **Heat exchangers and pumps** to convert the steam into hot water.
- Hot water distribution loop serving the new Chemical Sciences Building (state-supported) and laying the foundation to connect to Bagley Hall (major renovation in tandem with CSB) and 16 other campus facilities housing Engineering, Computer Science, and Arts & Sciences programs, many of which have received recent state investment. The loop will be designed for future expansion to a campus-wide hot water conversion.
- Projected greenhouse gas emission reduction of 4,600 10,100 MTCO₂e (Metric Tons of Carbon Dioxide Equivalent) depending on scale of buildout and ability to offset current natural gas boiler usage.

As you are aware, in addition to this specific request, we have numerous other initial phase clean energy projects identified in our <a href="Energy Renewal Plan">Energy Renewal Plan</a>, poised for execution if additional funding becomes available for appropriation. Due to the size of our Seattle Campus and scale of Power Plant emissions, even our smaller projects provide an excellent return on investment for associated greenhouse gas emission reductions.

We are thankful for the current/past investments made by the Legislature in supporting our efforts towards decarbonization and compliance with Clean Building legislation at both the State and local levels.

Thank you for your consideration. Please let us know if you have any questions regarding the request.

Respectfully submitted,

John R. Wetzel

Director - Campus Stewardship and Capital Budget

Finance, Planning & Budgeting (FPB)

Cc (via e-mail):

Robert J. Jones, President

Tricia Serio, Provost and Executive Vice President

Jason Campbell, Interim Senior Vice President and CFO, FPB

Morgan Hickel, Director, State Relations

Joe Dacca, UW VP of External Affairs

Jed Bradley, Executive Director of Policy, Planning & State Operations, FPB

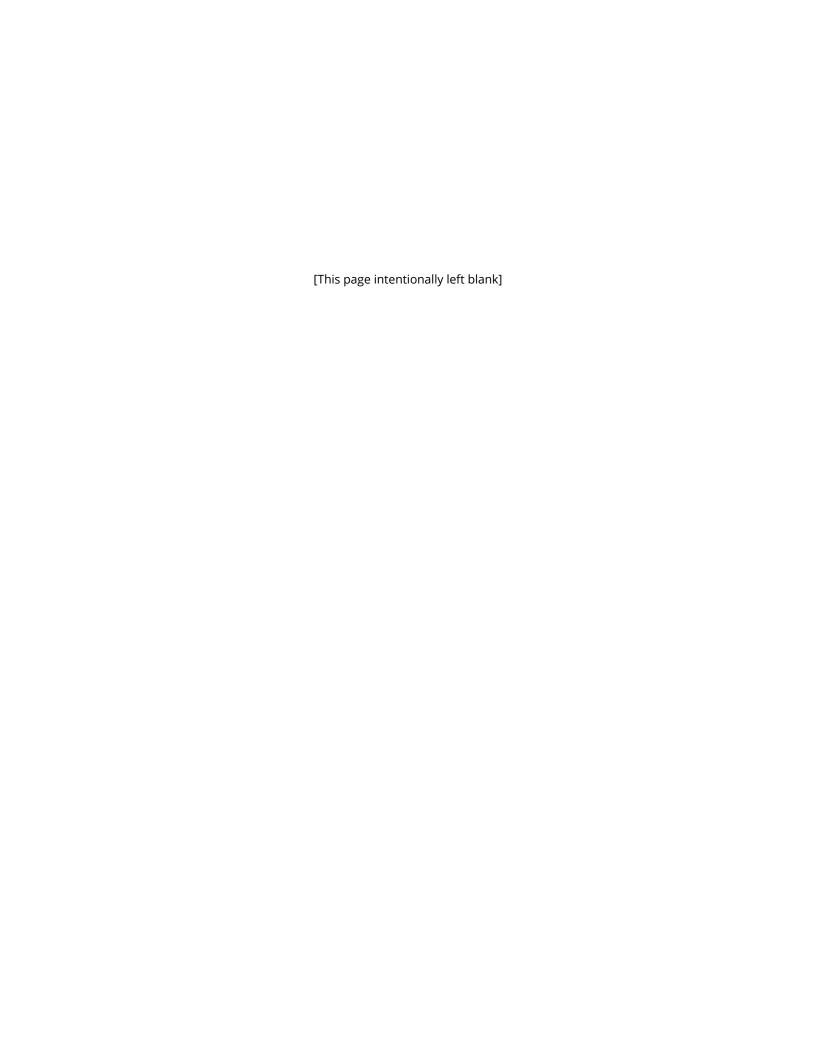
Rod Worden, UW Interim VP of Facilities

Steve Tatge, UW AVP of Facilities Asset Management



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# TAB A INTRODUCTION

#### Introduction

UW 2026 Supplemental Capital Budget Introduction

10 Year Capital Plan by Project Class – Report (CBS 001)

Department of Archaeology and Historic Preservation Review Correspondence

Capital FTE Summary – Report (CBS 004)

UW Deferred Maintenance Backlog Reduction Plan (from 25-27 Capital Budget Request)

**Campus Building Condition Maps** 



### University of Washington 2026 Supplemental Capital Budget Introduction

#### INSTITUTIONAL BACKGROUND

As the state's flagship university, the University of Washington (UW) serves more students than any institution in the Northwest – more than 62,000 annually, including a mix of both undergraduate (72%) and graduate/professional (28%) students. Founded in 1861, the UW is one of the oldest state-supported institutions of higher education on the West Coast. The UW is deeply committed to upholding the responsibility that comes with that legacy; being public has always meant being accessible. Anyone can enjoy and be enriched by all the UW has to offer, including world-class libraries, art, music, drama, sports, and the highest quality medical care in the state of Washington. Being public also means being engaged with our communities, and through knowledge and discovery, we elevate the quality of life of others.

Between the three campuses, the University offers 484 programs and 854 degree options. Eighty-four percent of incoming first-year students graduate within six years. The University takes pride in the fact that 27% of these first-year students are first-generation four-year degree-seeking students. Fifteen percent of the current undergraduate class includes transfer students from the State's community college system.

#### THE CAMPUSES

The **UW Seattle** campus comprises 18 colleges and schools whose faculty offer educational opportunities to just under 52,000 students, ranging from first-year undergraduates to doctoral-level candidates. The 639-acre campus is considered one of the nation's most beautiful, including the historic Liberal Arts Quad(rangle) lined with its historic Collegiate Gothic buildings. While serving the educational needs of the local student population, its reach is worldwide.

With their continual growth and diverse undergraduate and graduate programs, the Bothell and Tacoma campuses offer access to higher education and employment programs uniquely tailored to the needs of their students and local communities.

**UW Bothell**, founded in 1990, enjoys a 128-acre campus with over 6,000 students enrolled in five schools offering over 55 undergraduate and graduate degree programs. It is unique as it is the only four-year institution in Washington that shares a campus with a two-year institution, Cascadia College. UW Bothell holds the student-faculty relationship paramount, providing access to excellence in higher education through innovative and creative curricula, interdisciplinary teaching and research, and a dynamic multicultural learning community.

**UW Tacoma**, also founded in 1990, has just under 5,000 students in eight schools with over 50 undergraduate and 15 graduate degree programs. The school's 46-acre downtown campus, crafted from updated and restored historic buildings in Tacoma's Warehouse District, has won national recognition. UW Tacoma is an urban-serving university that provides students with access in a way that transforms families and communities and impacts and informs economic development through community engagement.

#### MISSION STATEMENT

The primary mission of the UW is the preservation, advancement, and dissemination of knowledge. The University preserves knowledge through its libraries and collections, its courses, and the scholarship of its faculty. It advances new knowledge through many forms of research inquiry, and discussion, and disseminates it through the classroom, the laboratory, scholarly exchanges, creative practice, international education, and public service. As one of the nation's outstanding teaching and research institutions, the University is committed to maintaining an environment for objectivity and imaginative inquiry and for the original scholarship and research that ensure the production of new knowledge in the free exchange of facts, theories, and ideas.

#### **VISION STATEMENT**

The UW educates a diverse student body to become responsible global citizens and future leaders through a challenging learning environment informed by cutting-edge scholarship.

#### Discovery is at the heart of our university.

We discover timely solutions to the world's most complex problems and enrich people's lives throughout our community, the state of Washington, the nation, and the world.

#### **CORE VALUES**

- **UW standard of excellence:** We recruit the best, most diverse, and innovative faculty and staff from around the world, encouraging a vibrant intellectual community for our students. We link academic excellence to cutting-edge research through scholarly exploration and intellectual rigor. We hold ourselves to the highest standards of ethics, as a beacon for our community and the world.
- Academic community: We are educators and learners. We promote access to
  excellence and strive to inspire through education that emphasizes the power of
  discovery and the foundation of critical and analytic thinking. We foster creativity,
  challenge the boundaries of knowledge, and cultivate independence of mind through
  unique interdisciplinary partnerships.
- **World leaders in research:** We have grown into the most successful public research university in the nation in attracting support for our research. Ours is a proud culture of innovation, collaboration and discovery that has transformational impact.
- Celebrating place: The natural beauty of the Pacific Northwest envelops us. This is
  an important element of who we are, for this awe-inspiring place not only anchors
  us, it reaffirms our desire to effect positive change in the world around us. We accept
  gratefully our role in preserving and enhancing Washington: the place, the people,
  our home.
- **Spirit of innovation:** As Washingtonians, we are profoundly optimistic about our future. Based on our past and present, we find inspiration for the future. Ours is a culture with a determined persistence that engenders innovation and a belief that our goals can be realized.
- World citizens: We are compassionate and committed to the active pursuit of global engagement and connectedness. We assume leadership roles to make the world a better place through education and research. We embrace our role to foster engaged and responsible citizenship as part of the learning experience of our students, faculty, and staff.

Being public: As a public university we are deeply committed to serving all our citizens. We collaborate with partners from around the world to bring knowledge and discovery home to elevate the quality of lives of Washingtonians. This measure of public trust and shared responsibility guides our decision-making as well as our aspirations and vision for the future.

#### **2026 SUPPLEMENTAL CAPITAL BUDGET REQUEST**

The UW's 2026 Supplemental Capital Budget Request supports the University's continued stewardship of our existing facilities and space resources, including new investments required to maintain our stature as a significant public resource for our region, nation, and world. The request is the result of multiple planning efforts with institutional partners carefully integrated with the UW's key strategies mentioned above to meet future challenges. The process is mission-driven, requiring an objective search for needs that support key strategies, focusing heavily on the efficient utilization of existing resources, and proposing accelerated care for those facilities and infrastructure systems that require the most attention.

The singular project we are requesting is an important component of the UW Energy Renewal Plan (ERP), funded in the 23-25 Operating Budget and completed in 2024, which outlines approximately 50 projects to reduce carbon emissions and replace aging utility infrastructure on the Seattle Campus. During the development of the ERP, multiple energy-saving and carbon-reduction technologies were explored in detail. The electrode boiler and initial hot water loop included in this request are critical elements of that decarbonization strategy and will provide immediate reductions in greenhouse gas emissions.

# **OFM**

# Ten Year Capital Plan by Project Class 2025-27 Biennium 360 - University of Washington

Version: 24 2026 Supplemental Budget FINAL

Report Number: CBS001 Date Run: 9/12/2025 4:33PM

Agency         Estimated Prior Prior In	Project Class: Preservation (State-Owned)	(State-Own	ed)							
Estimated						New				
Total   Expenditures   Expenditures   2025-27   2025-27   2027-29   2031-33	Agency	Estimated	Prior	Current	Reapprop	Approp	Estimated	Estimated	Estimated	Estimated
Prior   Current   Reapprop   Approp   Estimated   Es	Priority Project by Account-EA Type		Expenditures	Expenditures	2025-27	2025-27	2027-29	2029-31	2031-33	2033-35
## Prior   Current   Reapprop   Approp   Estimated   E	1 40000213 Power Plant Electr	ification & Ca	impus Hot Wate	r Loop - Phase 1						
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47,500,000	Account-Expenditure Authority Typ		Expenditures	<u>Expenditures</u>	2025-27	2025-27	2027-29	2029-31	2031-33	2033-35
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# Ten Year Capital Plan by Project Class

Report Number: CBS001 Date Run: 9/12/2025 4:33PM

Parameter	Entered As	Interpreted As
Biennium	2025-27	2025-27
Functional Area	*	All Functional Areas
Agency	360	360
Version	24-A	24-A
Project Classification	*	All Project Classifications
Include Enacted	Yes	Yes
Sort Order	Project Class	Project Class
Include Page Numbers	z	No
For Word or Excel	z	z
User Group User Id	Agency Budget	Agency Budget All User Ids



## DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION REVIEW

#### Correspondence

8-26-2025 UW Request Letter to DAHP

9-5-24 DAHP Compliance Letter to UW \*

However, we are including the DAHP Compliance Letter from the 25-27 Biennial Capital Budget, as that request included infrastructure renewal projects of a very similar nature, and we are confident that our current project will receive a favorable review.

<sup>\*</sup> We have yet to receive a response from DAHP regarding the project we are requesting funding for in the 2026 Supplemental Capital Budget. We learned soon after sending our request letter on August 26th that one of their staff members is on paternity leave for a month, which might impact review work as others cover the workload.



#### **Transmittal**

Date: August 25, 2025

To: Preservation Design Reviewer (via online submittal)

Department of Archaeology & Historic Preservation

PO Box 48343

Olympia, WA 98504-8348

From: Julie Blakeslee

University Environmental & Land Use Planner

#### Subject: Executive Order 21-02 Review in Support of State Supplemental Budget Request

In accordance with Executive Order 21-02 directing agencies to consult with the Department of Archaeology and Historic Preservation (DAHP) on all capital construction projects to be considered for state funding or for pre-design reports, the University of Washington is hereby seeking exemptions for and providing information on proposed projects described below.

We would appreciate a letter from you confirming receipt of this information in support of our 2026 Supplemental Capital Budget Request. The following project is a subset or portion of the overall "Clean Energy Transformation" program as reviewed with Project Tracking Code 2024-09-06328. The state did not fund the request, and we are now seeking a portion of the work:

#### Power Plant Electrification & Campus Hot Water Loop – Phase 1

This project funds the design and construction of one electrode (electric) boiler (6 MW) to provide clean energy steam at the Power Plant and the initial phase of our Campus Hot Water Loop. This project accelerates a portion of UW's Clean Energy Transformation (or Renewal Plan). This project has two specific goals: (1) immediate reductions in greenhouse gas (GHG) emissions by supplementing the existing campus steam heating system with a boiler powered by Seattle City Light's clean electrical grid, and (2) begins the University's path to compliance with the state's clean building performance standard and decarbonization requirements. The boiler would supplement the existing campus heating system and lay the foundation for carbon-free heating for a portion of campus. Heat exchangers and pumps located at the Power Plant will convert the steam from the electrode boiler to hot water, supplying this initial phase of a campus Hot Water Loop.

The Hot Water Loop components will be sized to accommodate a full build-out of the system. Using hot water produced from the electrode boiler, a direct bury piping system will serve the new Chemical Sciences Building (CSB) (which received recent state funding) and will be routed to potentially serve an additional 16 College of Engineering and College of Arts & Sciences buildings. Terminations and valves will be installed to simplify future building conversions. The route includes Bagley Hall, which is scheduled for a major renovation funded by the University in tandem with the CSB project.



#### September 5, 2024

Julie Blakeslee, AICP University Environmental and Land Use Planner Campus Architecture & Planning; UW Facilities, Asset Management

In future correspondence please refer to: Project Tracking Code: 2024-09-06328

Property: University of Washington Preliminary 2025-2027 Biennium Budget Review

Re: Preliminary Review of Biennium Projects

#### Dear Julie:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). The above-referenced project has been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Governor's Executive Order 21-02 (GEO 21-02). We have reviewed the materials you provided for the University of Washington Projects for the 2025-2027 Biennium.

Should projects become obligated with Washington State Capital Funding and include ground-disturbing activities and/or alterations to the interior or exterior of buildings or structures 45 years of age or older, we will request consultation with DAHP under GEO 21-02. If neither ground-disturbing activities nor alterations to a building or structure over 45 years old are related to a project, consultation with DAHP is not required. Any projects with a federal nexus and determined to be an undertaking subject to Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800 will not require 21-02 consultation.

These comments are based on the information available at the time of this review and on behalf of the SHPO in conformance with GEO 21-02. Should additional information become available, our assessment may be revised.

Thank you for the opportunity to review and comment. If you have any questions, please feel free to contact me.

Sincerely,

Maddie Levesque, M.A Architectural Historian

(360) 819-7203

Maddie.Levesque@dahp.wa.gov



#### **OFM**

#### 360 - University of Washington Capital FTE Summary

2025-27 Biennium

Version: 24 2026 Supplemental Budget FINAL

Report Number: CBS004

Date Run: 9/12/2025 4:34PM

FTEs by Job Classification				
	Authorized Bu	dget		
	2023-25 Bienn	ium	2025-27 Bienn	ium
Job Class	FY 2024	FY 2025	FY 2026	FY 2027
Accountant			4.0	4.0
Accounting Manager			1.0	1.0
Administrative Assistants			2.0	2.0
Assistant Directors			2.0	2.0
Construction Managers			9.0	9.0
Directors			1.0	1.0
Program Support			3.0	3.0
Programmers			3.0	3.0
Project Integrators			6.0	6.0
Project Managers			11.0	11.0
Total FTE	s		42.0	42.0

Account				
	Authorized Bu	dget		
	2023-25 Bienn	nium	2025-27 Bien	nium
Account - Expenditure Authority Type	FY 2024	FY 2025	FY 2026	FY 2027
057-1 State Bldg Constr-State			4,414,769	4,547,212
064-1 UW Building Account-State			2,943,179	3,031,474
Total Funding			7,357,948	7,578,686

#### **Narrative**

FTEs updated to reflect current capital staffing levels.

#### **Capital FTE Summary**

2025-27 Biennium

Report Number: CBS004

Date Run: 9/12/2025 4:34PM

**Interpreted As Parameter Entered As** 2025-27 2025-27 Biennium Agency 360 360 Version 24-A 24-A Include Page Numbers Ν No For Word or Excel Ν Ν

User Group Agency Budget Agency Budget



# University of Washington Deferred Maintenance Backlog Reduction Plan (from our 25-27 Capital Budget Request)

The University of Washington's Deferred Maintenance Backlog Reduction Plan is prepared and presented as part of the 2025-2027 Capital Budget Request to meet the requirements of RCW 43.88.030 (5d): "A strategic plan for reducing backlogs of maintenance and repair projects. The plan shall include a prioritized list of specific facility deficiencies and capital projects to address the deficiencies for each agency, cost estimates for each project, a schedule for completing projects over a reasonable period of time, and identification of normal maintenance activities to reduce future backlogs;"

#### **BACKGROUND**

The leading institutional risk for the University remains the continued growth of the deferred maintenance backlog. The most recent estimates suggest that the deferred maintenance backlog in education and general administration (E&G) facilities on the Seattle Campus alone is \$2.6 billion, with a projected renewal need growing by approximately \$100 million per year (see table below). The backlog at UW Bothell and UW Tacoma is substantially less, but it still warrants increased attention.

#### 2024 ESTIMATED DEFERRED MAINTENANCE BACKLOG<sup>1</sup>

Facility Type	UW Bothell	UW Seattle	UW Tacoma	UWMC
E&G Facilities	\$41.4M	\$2.6B	\$60.9M	TBD
LOG Facilities	(increasing @ \$4.5M/yr.)	(increasing @ \$100M/yr.)	(increasing @ \$8.2M/yr.)	160

In light of this issue, the University developed a set of Long-Term Capital Plan (LTCP) strategies in late 2019 - early 2020 by a broad constituency of campus leadership to create a framework to guide the overall allocations of the primary capital fund sources (state, debt, gift, and equity) to institutional demand categories (clinical, growth, renewal, and strategic). These strategies were mapped to the projected capital funding sources to ensure that year-by-year decisions are aligned with these guidelines and emphasize the following:

- Increased capital investment in renovation or replacement of existing buildings (i.e., facilities "renewal") to avoid further growth of the deferred maintenance backlog
- This includes prioritizing renewal investments to accommodate program growth and limiting the total new square footage facilities growth rate of the campuses
- Providing ongoing access to capital for the clinical enterprise
- Leveraging partnerships with external entities where industry capabilities can serve to further the UW mission

When it was initially developed, the LTCP excluded utilities and infrastructure needs from the renewal demand category. In response to that issue, the original strategies have evolved over the past several years to include more nuanced approaches that support the institution's need to more directly address deferred maintenance, infrastructure, and energy renewal (decarbonization) without sacrificing the need to support the clinical enterprise.

With those issues at the forefront, the refined principles outlined below were shared with the Regents

<sup>&</sup>lt;sup>1</sup> Per the FY25 Annual Capital Budget approved by the Board of Regents in June 2024.

in the fall of 2023 and focus more discretely on renewal and managing growth:

- 100% of UW Building Account funds should be utilized for renewal of existing facilities;
- Seek to leverage almost all of state capital funding to be appropriated for renovation/replacement projects;
- Explore opportunities to attract new sources of philanthropy to help address renewal needs, i.e., sustainability investments;
- Seek to accommodate program growth within our existing facilities footprint wherever feasible,
- Fully fund annual Maintenance & Operations + Renewal (M&O+R) for any projects resulting in facility footprint growth; and
- Continue to provide access to capital via debt to support the clinical enterprise strategic initiatives

Through sustained adherence to these strategies that emphasize additional investment in renewal projects beyond the current level, the University believes this will improve the quality of the campus, reduce the risk of catastrophic failures, extend the life of the buildings, enhance health and safety, contribute to meeting sustainability goals, and increase the academic quality through the modernization of deteriorating facilities.

#### **FOCUS OF PLAN**

Although the University of Washington owns over 30 million square feet across our entire facility portfolio, the main focus of our deferred maintenance backlog reduction plan is the approximately 14 million square feet of state-supported Education and General (E&G) facilities on the Seattle campus due to the age and condition of the Seattle portfolio. These facilities are critical to the core mission of our institution, and a targeted approach is needed to keep these buildings as functional as possible. However, it is also essential that we continue to address the deferred maintenance issues at both UW Bothell and UW Tacoma as those newer campuses continue to age.

#### LTCP STRATEGIES IN ACTION

As previously mentioned, the LTCP strategies endorsed by the Board of Regents are intended to be a realistic and sustainable model that will allow the University to slow the growth of deferred maintenance and gradually reduce the backlog to a manageable level. Progress is being made across the board, but several specific areas to highlight include:

1. Seek to leverage almost all of state capital funding to be appropriated for renovation/replacement projects. Historically, the University has focused significantly less of its total capital expenditures on renewal and replacement projects than on new construction. The more recent shift of this focus towards renewal will help the University to reach its goal of increasing the amount of reinvestment in existing facilities at roughly the same rate as they are deteriorating and, at the same time, reduce the rate at which we are adding to the ever-increasing deferred maintenance backlog.

Our 2025-2027 Capital Budget Request does include a request for the construction phase of the new Chemical Sciences Building (part of the Chemical Sciences & Bagley Hall project). Still, the remainder of our request is intentionally focused on immediate emergent needs, decarbonization/energy renewal initiatives, and facility renewal. We also continue to leverage our UW Building Account to address issues related to the Clean Buildings Performance Standard and other tri-campus infrastructure needs.

2. Seek to accommodate program growth within our existing facilities footprint wherever feasible. One foundational strategy to maximize renewal investments is to accommodate any necessary program growth within the existing facility footprint and limit the amount of new space created. To support this effort, program growth that can be effectively housed in an existing facility renovated to suit the new use and concurrently address deferred maintenance should be considered the first and most important option. This approach instills confidence in our strategy.

The chart below shows the progress made over the last several years to limit the growth of new E&G space across the institution. The chart also includes projects that are still under construction (or have yet to begin), and these projects create a trend line that starts to parallel the 0.5% target value for space growth in future years. Continued diligence in project selection will be required to maintain this positive trend.

#### 3.0% 17.0 16.5 2.5% 2.0% 16.0 % E&G GSF Growth 1.5% 15.5 15.0 1.0% 14.5 0.5% otal 0.0% 14.0 -0.5% 13.5 13.0 -1.0% 2010 2012 2011 Total E&G GSF (in millions) 0.5% Growth Target ----- Actual Growth % 5 Yr. Actual Moving Average %

**EDUCATION & GENERAL FACILITY GROWTH RATE VS. 0.5% TARGET** 

3. Fully fund annual Maintenance & Operations + Renewal (M&O+R) for any projects resulting in facility footprint growth. When new incremental (net-new) space is added to the tri-campus facility inventory, overall maintenance, operation, and renewal costs (M&O+R) increase accordingly. These costs are estimated during the planning process, and fund sources must be committed before final project approval. Multiple fund sources may be utilized to provide this funding (e.g., state funds, unit funds, operating revenue, building endowments, etc.).

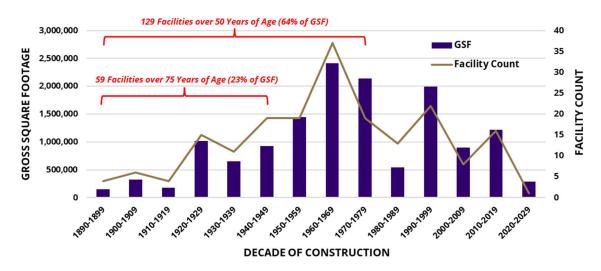
Since state support is not always guaranteed, the Capital Funding Guidelines now require that full funding for annual M&O+R be committed before initiating any new building project. Projects relying on state funding to meet these requirements must secure a secondary funding source or 'backstop' commitment before approval. This 'backstop' commitment plays a crucial role in financial planning and risk management, and has, in some instances, involved incremental funding from individual units.

4. **Increase preventive maintenance.** Due to the nature of our backlog, the University is forced to spend most of its available resources on corrective maintenance and emergency replacements as building components fail. This type of "just in time" maintenance is

inherently less efficient than addressing maintenance issues in a planned fashion and results in accelerated deterioration of our most important buildings.

On the Seattle campus, the impact of this phenomenon is particularly severe due to the age profile of our E&G buildings (see figure below). A staggering 67% of our buildings (129) are more than 50 years old, with 59 of that total over 75 years old. This is well beyond the normal life expectancy for most major building systems, which is approximately 25-30 years. The gravity of this situation cannot be overstated, as we are dealing with numerous building systems that are well beyond their expected service life.

#### SEATTLE CAMPUS EDUCATION & GENERAL FACILITY AGE



Based on information compiled from internal building condition reviews and detailed facility condition assessments performed by an outside consultant (Intelligent Systems and Engineering Solutions (ISES) Corporation) completed in 2023, the University has developed a prioritized list of the most critical deferred maintenance issues that we will utilize to determine the most appropriate projects in which to invest to reach a manageable backlog over the next several decades. This information is also being integrated into our facilities management software (AssetWorks) to guide preventive maintenance efforts and work order management processes.

#### **CURRENT INITIATIVES**

The cornerstone of the deferred maintenance backlog reduction plan is access and use of reliable and fully integrated information about our facilities. Several initiatives highlighted below are well underway to maximize the University's use of it to make data-informed decisions:

The Campus Asset Renewal Program (CARP) was established in the Summer of 2023 to combine complementary initiatives that are underway related to our ongoing deferred maintenance issues (Building Renewal Program) while incorporating the objectives of the Clean Energy Strategy (Energy Renewal Program). The governance of these two major initiatives under the CARP umbrella is a singular effort to realize implementation efficiencies, significant financial economies of scale, and long-term reductions in annual operating costs.

# Campus Asset Renewal Program

**Energy Renewal Program** 

- Consultant hired in May 2023
- Incorporates data from recent Facility Condition Assessment by ISES
- Will develop "tools" to determine the highest investment priorities at the facility level (similar to the "Restore the Core" program)
- Initial three to four projects to be defined by mid-2024
- Consultant hired in August 2023
- "Top Priority" for UW!
- Addresses 93% of UW Scope 1 GHG emissions
- State provided \$3M to support development of this Clean Energy Implementation Plan via the Climate Commitment Account
- Implementation Plan due in August 2024
- The **Building Renewal Program** (BRP) is similar in concept to the Building Restoration & Renewal Prioritization Study (June 2004), which served as the basis for the University's "Restore the Core" Program several decades ago. That study identified 15 mission-critical buildings with a backlog of renewal needs, which, if done incrementally, would exceed the building's replacement value. This new program will provide information to support prioritization at a facility level and is envisioned to provide a variety of "tools" that will allow a finite evaluation of the assets and systems within a facility for potential targeted investments. The recent Facility Condition Assessments performed by Intelligent Systems & Engineering Services provide the foundation for this work. Another main difference is that the BRP will assess all the Seattle E&G facilities, not just a subset.
- The Energy Renewal Program (ERP) is developing an implementation plan, funded by Climate Commitment Account proceeds, to support our five-part Clean Energy Strategy. An energy services partner (Affiliated Engineers, Inc.) has been retained to conduct the detailed engineering analyses necessary to refine the strategy. These analyses include the various energy project timelines, refined cost estimates, and overall coordination to turn this strategy into an implementation plan aligned with other University strategic initiatives. This consultant agreement includes expertise in seeking potential funding sources and identifying projects that have the best probability for federal support.
- Monitoring Based Commissioning (MBCx). The University implemented an initial phase of "smart meters" between 2010 2015, and continues to expand this program more broadly across campus. Our Monitoring Based Commissioning program takes ongoing facility commissioning to the next level by using software to collect, analyze, and report data to optimize building energy performance and efficiency. As this program evolves and matures, it will allow us to utilize data analytics to drive actions. This will help us establish an effective predictive maintenance program, an even more efficient way to service our buildings, freeing up resources to address components nearing the end of their service life.

Portfolio Dashboards. The University has developed and continues to refine real-time
portfolio dashboards that allow us to better prioritize projects with up-to-date information
about each facility's condition, performance, and productivity, maximizing the value of our
investments.

#### **PROJECT IDENTIFICATION & PRIORITIZATION**

The capital budget process begins with the visions of the President and Provost, and an alignment of the needs assessment of the Chancellors in Bothell and Tacoma, the Deans of each school and college, the Clinical Enterprise leadership, and auxiliaries' leadership. UW Facilities Account Managers work closely with the leadership of these units to identify priorities and look for opportunities where facility conditions can be improved, as well as fund sources leveraged to achieve programmatic goals. With ongoing counsel from the Capital Planning Advisory Team (CPAT), projects are created with specific objectives, budgets, and funding strategies, and then funding feasibility is evaluated with Advancement; Government Relations; and Finance, Planning & Budgeting. Each project is scored based on a multi-criteria scoring process that allows projects to be ranked and adjusted as external conditions change, providing a flexible and adaptable approach to future planning.

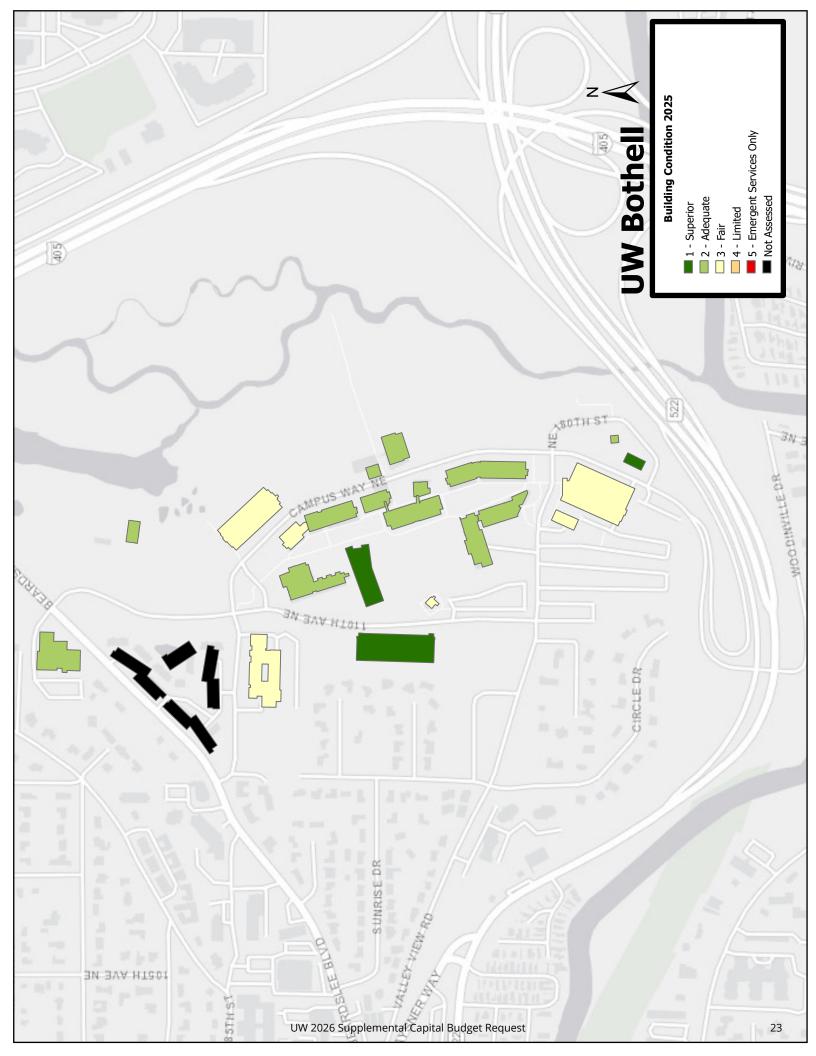
The process for identifying clinical investments is similar and is based on UW Medicine's capital planning efforts, which the UW Medicine Advisory Board regularly reviews. As specific investments are identified, each is scoped and scored using a similar multi-criteria prioritization system, with fine-tuning to match the needs of the Clinical Enterprise.

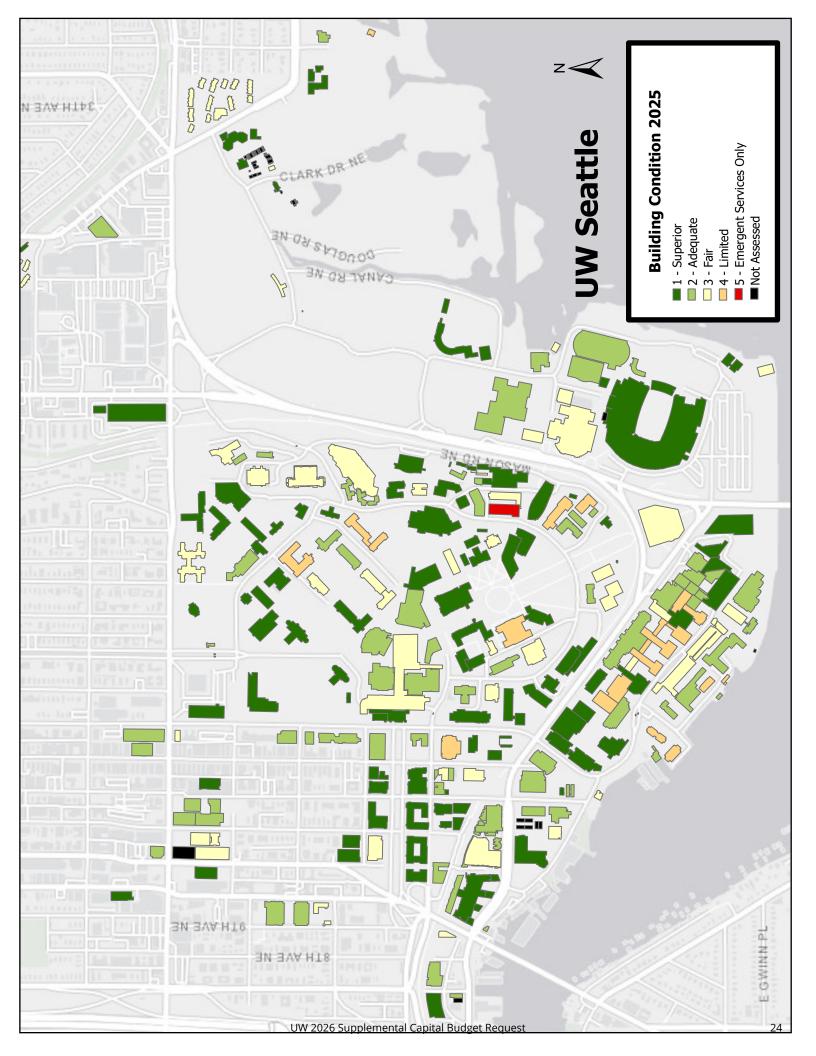
To be considered for the Annual Capital Budget (which informs the biennial State Capital Request), all projects must meet firm criteria to move forward realistically within the next five years. Project goals must be well established, in addition to a defined project scope, a target budget based on selected benchmarks, a feasible funding plan, and an identified source for ongoing maintenance, operations, and renewal costs.

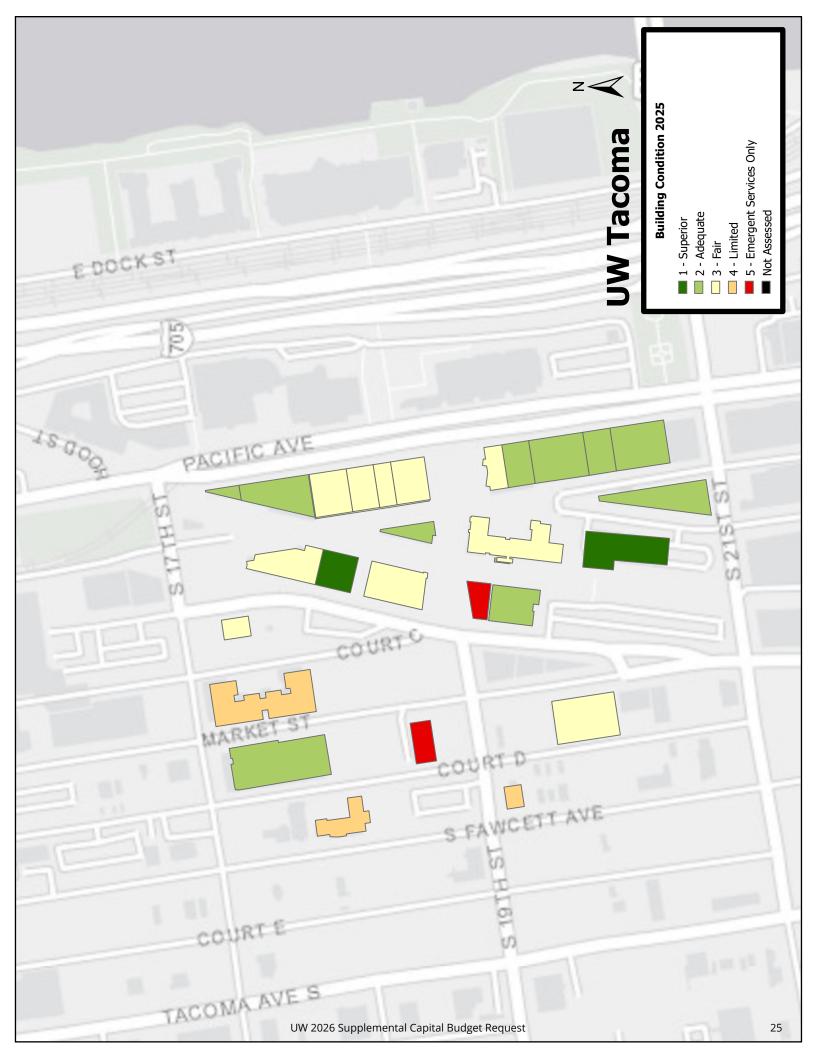
#### **SUMMARY**

The University of Washington's 2025-2027 Capital Budget Request prioritizes investment in projects that will help stem the tide of deferred maintenance, advance decarbonization efforts, and support the continued preservation of the public's assets, directly supporting UW's educational mission.

Our request for capital support Chemical Sciences and Bagley Hall (\$125M) and UW Tacoma Emergency Power (\$3.9M) from the State 057 Building Construction Account for as well as proceeds from the Climate Commitment Account 26-C for Energy Transformation (\$292.6M), and appropriations from the UW 064 Building Account for Seismic Improvements (\$10.3M), Infrastructure Renewal (\$50.7M), and Asset Preservation (\$28.6M) will allow us to continue to focus on both facility and infrastructure preservation and renewal. The University believes these specific investments provide the public with the biggest return for each dollar committed.









# TAB B PRESERVATION PROJECTS

#### **New Requests**

40000213 Power Plant Electrification & Hot Water Loop – Phase 1

#### **UW PRESERVATION PROJECTS**

#### **Request Summaries**

#### Power Plant Electrification & Hot Water Loop - Phase 1 (\$47.5M for Design/Const.)

This "proof of concept" project has two specific goals: (1) immediate reductions in greenhouse gas (GHG) emissions by supplementing the existing Seattle Campus steam heating system with an electrode boiler powered by Seattle City Light's clean energy grid, and (2) supporting the University's path to compliance with the state's Clean Building Performance Standards and decarbonization requirements.

Highlights of this project include:

- A 6-megawatt electrode boiler providing carbon-free steam to serve the campus and immediately reducing greenhouse gas emissions.
- Heat exchangers and pumps to convert the steam into hot water.
- Hot water distribution loop serving the new Chemical Sciences Building (state-supported) and laying the foundation to connect to Bagley Hall (major renovation in tandem with CSB) and 16 other campus facilities housing Engineering, Computer Science, and Arts & Sciences programs, many of which have received recent state investment. The loop will be designed for future expansion to a campus-wide hot water conversion.
- Projected greenhouse gas emission reduction of 4,600 10,100 MTCO₂e (Metric Tons of Carbon Dioxide Equivalent) depending on scale of buildout and ability to offset current natural gas boiler usage.

# 360 - University of Washington Capital Project Request

2025-27 Biennium

Version:24 2026 Supplemental Budget FINALReport Number:CBS002

Date Run: 9/12/2025 4:30PM

Project Number: 40000213

Project Title: Power Plant Electrification & Campus Hot Water Loop - Phase 1

Project Class: Preservation (State-Owned)

### **Description**

Starting Fiscal Year: 2027 Agency Priority: 1

### **Project Summary**

The University of Washington requests \$47.5 million from the Climate Commitment Account 26C for the design/construction associated with our Power Plant Electrification & Campus Hot Water Loop - Phase 1 project. This "proof of concept" project has two specific goals: (1) immediate reductions in greenhouse gas (GHG) emissions by supplementing the existing Seattle Campus steam heating system with an electrode boiler powered by Seattle City Light's clean energy grid, and (2) supporting the University's path to compliance with the state's Clean Building Performance Standards and decarbonization requirements.

### **Project Description**

1. Identify the problem or opportunity addressed. Why is the request a priority? This narrative should identify unserved/underserved people or communities, operating budget savings, public safety improvements or other backup necessary to understand the need for the request. For preservation projects, it is helpful to include information about the current condition of the facility or system.

The University of Washington is undertaking a groundbreaking effort to fully decarbonize the Seattle Campus energy system, transforming how we heat, cool, and power our facilities. At the core of this initiative to reduce greenhouse gas (GHG) emissions is an upgrade to the UW Power Plant, which currently depends on aging, inefficient infrastructure that burns natural gas to produce steam for heating. By transitioning to cleaner, more efficient energy infrastructure, the UW is aligning daily operations with long-standing sustainability values, greenhouse gas reduction goals, and improved air quality for the community.

The UW Power Plant's natural gas boilers currently produce 78,000 MTCO2e (metric tons of carbon dioxide equivalent) of carbon emissions annually. This project will create steam via an electrode boiler to supplement the existing campus heating system and lay the foundation for carbon-free heating in campus buildings. Converting the steam to hot water through heat exchangers creates a hot water source for distribution to the campus, aided by a new hot water piping network. A new hot water distribution loop is required from the Power Plant to campus buildings and back to the Power Plant heat exchangers for an efficient heating system. A looped system also provides flexibility and resiliency to the system during maintenance and when future buildings connect to the system.

2. What will the request produce or construct(i.e., predesign or design of a building, construction of additional space, etc.)? When will the project start and be completed? Identify whether the project can be phased, and if so, which phase is included in the request. Please provide detailed cost backup.

The funding request is for the design, permitting, and construction of the electrode boiler, heat exchangers and pumps in the existing Power Plant, and the direct-bury hot water distribution loop in the Central Campus Zone.

Phasing: This project represents the initial phase of the approximately 50 projects required to fully decarbonize the Seattle Campus energy system. In addition, we have scaled each component to the smallest scope feasible while maximizing reductions in GHG emissions. The one-electrode boiler is the first of the three planned. The hot water distribution loop is the first of five hot water distribution zones planned for the campus. Detailed cost backup is provided in **Appendix A** and is the basis for the costs in the C-100.

The schedule for this request is as follows:

Funding Availability July 2026

Contractor Selection

Design & Permitting

Construction

Commissioning & Startup

July 2026 – October 2026

October 2026 – May 2027

May 2027 – September 2028

September 2028 – December 2028

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not acting?

# 360 - University of Washington Capital Project Request

2025-27 Biennium

Version:24 2026 Supplemental Budget FINALReport Number:CBS002

Date Run: 9/12/2025 4:30PM

Project Number: 40000213

Project Title: Power Plant Electrification & Campus Hot Water Loop - Phase 1

Project Class: Preservation (State-Owned)

### **Description**

With the installation of the electrode boiler (6 MW), the project immediately realizes reductions in greenhouse gas emissions by supplementing the campus steam heating system with a boiler fueled by Seattle City Light's clean electrical grid. The electrode boiler will supplement the existing campus heating system and lay the foundation for carbon-free heating to be supplied to campus facilities. With additional heat exchangers and pumps at the Power Plant, the steam from the electrode boiler is converted to hot water to supply the first of five campus hot water loops.

Using hot water from the Power Plant electrode boiler, the proposed hot water distribution piping will serve the new Chemical Sciences Building (state-supported) and lay the foundation to connect to Bagley Hall (major renovation in tandem with CSB) and 16 other campus facilities housing Engineering, Computer Science, and Arts & Sciences programs, many of which have received recent state investment. The loop will be designed for expansion with terminations and valves (T's & V's) available for future hot water building conversions.

If funded, the proposed hot water loop installation timing allows the Chemical Sciences Building to connect to the hot water system from the outset, thereby eliminating the need (cost) to install temporary equipment to connect to the existing steam system and then convert to a future hot water system. If the projects are not funded, the Power Plant will continue to rely solely on natural gas-fired boilers to provide heating via steam throughout campus. By not acting, it will delay the University's ability to comply with the Clean Building Performance Standards regarding GHG reductions. Consequently, the Power Plant's annual GHG emission rate of 78,000 MTCO2e will continue without reduction. In addition, further delay in advancing the University's Energy Renewal Plan for decarbonizing the energy system for the Seattle Campus will result in increased cost escalation currently trending at 4-5% annually, increased decentralization of heating and cooling systems, and the inability to provide necessary cooling to existing buildings in this era of increased temperatures.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

The Energy Renewal Plan (ERP), funded in the 23-25 Operating Budget and completed in 2024, outlined approximately 50 projects to reduce carbon emissions on the Seattle Campus. During the development of the ERP, the design team explored multiple energy-saving and carbon-reduction technologies. In addition to the electrode boiler in this proposal, the ERP recommendations include heat pumps, thermal energy storage, sewer water heat recovery, lake water cooling/heating, an exploration of electric resistance boilers, geothermal heat exchange, and air source heat pumps.

Electrode boilers are proposed over electric resistance boilers since they are available in voltages that are compatible with the high-voltage campus power (13.8 kVA), which results in reasonable electrical feeder sizes to the boilers. Electric resistance boilers are not currently available in voltages above 4,160V, which would result in an additional level of transformation and massive electrical feeders across existing areas of the Power Plant. It should be noted that both electrode and electric resistance boilers require exceptionally large electrical disconnects (comparable in size to switchgear), generally located adjacent to the boilers.

Our 25-27 Capital Budget request of \$293 million for Clean Energy Transformation included ten out of the 50 projects, laying the foundation for decarbonization. Due to the size of that request and the minimal reductions resulting from these initial projects, the University received no funding. As such, we have reassessed the sequencing of projects, as recommended here, to provide meaningful GHG reductions earlier in the process that are consistent with the multi-phase, multi-year Energy Renewal Plan.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The proposed project will positively impact all academic units, athletics, and the UW Medical Center (UWMC) on the Seattle Campus by advancing the decarbonization of the Seattle Campus energy system. The specific client is our Campus Energy, Utilities & Operations Team (CEUO), which will operate and maintain the system.

# 360 - University of Washington Capital Project Request

2025-27 Biennium

Version:24 2026 Supplemental Budget FINALReport Number:CBS002

Date Run: 9/12/2025 4:30PM

Project Number: 40000213

Project Title: Power Plant Electrification & Campus Hot Water Loop - Phase 1

Project Class: Preservation (State-Owned)

### **Description**

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share of project cost allowable and the supporting citation or documentation.

No. The funding to complete the proposed project would come from the Climate Commitment Account. However, this project supports and leverages funding associated with several other University projects, including the Chemical Sciences Building (funded in the 25-27 Capital Budget and by local University funds) and Bagley Hall (major renovation in tandem with CSB, funded by the University).

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

This project supports the University's Energy Renewal and Sustainability Action Plans and is included in UW's Decarbonization Plan submitted to the Department of Commerce in June 2025. The proposed Power Plant Electrification and Hot Water Loop project align with the recommendations put forward in the UW Energy Renewal Plan, explicitly focusing on the conversion from steam to hot water, centralized cooling, and electrification of the heating system.

8. Does this decision package include funding for any Information Technology related costs including hardware, software (to include cloud-based services), contracts or staff? If the answer is yes, you will be prompted to attach a complete IT addendum. (See Chapter 10 of the operating budget instructions for additional requirements.)

### **NOT APPLICABLE**

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 14 (Puget Sound Recovery and Governor's Salmon Strategy) in the 2025-27 Operating Budget Instructions.

### **NOT APPLICABLE**

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, clean buildings performance standards in RCW19.27A.210, or other statewide goals to reduce carbon pollution and/or improve energy efficiency? Please elaborate. For buildings subject to the clean buildings performance standards, describe your compliance pathway for the building, and include information about energy audits, metering, and energy benchmarking.

The proposed project is included in the UW Seattle Campus Decarbonization Plan submitted to the Department of Commerce in June 2025 as required by the Clean Buildings Performance Standards (CBPS). The Seattle Campus is currently below the EUI (Energy Use Intensity) target of the CBPS per the Decarbonization Plan (Seattle Campus EUI Target is 145 kBTU/GFA/yr with the actual measured EUI for calendar year 2024 of 138 kBTU/GFA/yr). However, this project and future projects are required to meet the greenhouse gas emission targets set in the Decarbonization of District Energy Systems (House Bill 1390) compliance pathway. This project is anticipated to reduce GHG emissions by 4,600 – 10,100 MTCO2e annually.

11. How is your proposal impacting equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

The Decarbonization Plan will improve air quality and benefit the local Seattle community, the Puget Sound Region, and the state. The demographics of the UW Seattle Campus are highlighted in **Appendix B** – UW Pride Points 2024-2025. The region, as delineated by the Puget Sound Clean Air Agency, includes Snohomish, King, Pierce, and Kitsap counties and contains 4.1 million people with diverse ethnicities and incomes. Snohomish, King, and Pierce counties include six of the 16 communities identified as overburdened by the Department of Ecology. For information on air quality impacts on Washington's overburdened communities, see the Department of Ecology report below.

# 360 - University of Washington Capital Project Request

2025-27 Biennium

Version: 24 2026 Supplemental Budget FINAL Report Number: CBS002

**Date Run:** 9/12/2025 4:30PM

Project Number: 40000213

Project Title: Power Plant Electrification & Campus Hot Water Loop - Phase 1

Project Class: Preservation (State-Owned)

### **Description**

https://apps.ecology.wa.gov/publications/UIPages/documents/2302115.pdf

12. Is this project eligible for Direct Pay? If the answer is yes, you must include this project to the list of direct pay projects and information for submittal (see Chapter 1.7 of the capital budget instructions for additional instructions).

#### NOT APPLICABLE.

While the UW is structuring projects to optimize federal funding reimbursement opportunities through the Infrastructure Act (IIJA) and Inflation Reduction Act (IRA), this project is not eligible for Direct Pay reimbursement. However, future requests for thermal energy storage, sewer heat recovery, and deep lake cooling may be eligible for Direct Pay reimbursement.

13. Is there additional information you would like decision makers to know when evaluating this request?

The timing of the new Chemical Sciences Building and the proposed project will allow for efficient use of State funding. With the new hot water loop in the proposed project, the Chemical Sciences Building will be able to forgo steam-to-hot water heat exchangers to connect to the existing steam system and instead connect to the new hot water system, thus eliminating the need for a future hot water conversion.

UW is currently working with the City of Seattle Department of Construction and Inspections (SDCI) on potential building code revisions to facilitate low-carbon district energy systems such as the one proposed in the UW's Energy Renewal Plan. The proposed project will demonstrate to the city that we are advancing our initiative to decarbonize the Seattle Campus, reduce emissions, and improve air quality for the city.

14. Reappropriation: if the project was originally funded prior to the 2021-23 biennium, describe the project and each subproject, including the original appropriation year, status of the project and an explanation why a reappropriation is needed.

### **NOT APPLICABLE**

15. If the project is linked to the Governor's Salmon Strategy provide an explanation of how the budget request relates to a salmon strategy action, is urgent in the coming biennium to advance salmon recovery, is aligned with a federally approved salmon recovery plan, and/or advances a known tribal priority.

### NOT APPLICABLE

16. In the agency summary, include the statement, "Related to implementing the Governor's Salmon Strategy." See Chapter 14 in the 2025-27 operating budget instructions for more information. (Note: This question is not in CBS but does need a response if applicable).

### **NOT APPLICABLE**

Location

City: Seattle County: King Legislative District: 043

### **Project Type**

Major Projects-Infrastr Replacemnt

### **Growth Management impacts**

Not applicable.

### **Funding**

# 360 - University of Washington Capital Project Request

2025-27 Biennium

Version: 24 2026 Supplemental Budget FINAL

Report Number: CBS002 Date Run: 9/12/2025 4:30PM

Project Number: 40000213

Project Title: Power Plant Electrification & Campus Hot Water Loop - Phase 1

Project Class: Preservation (State-Owned)

Fund	ling					
			Expenditures	2025-27 Fiscal Period		
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
26C-1	Climate Commit Accou-State	47,500,000				47,500,000
	Total	47,500,000	0	0	0	47,500,000
		Fu	uture Fiscal Peri	ods		
		2027-29	2029-31	2031-33	2033-35	
26C-1	Climate Commit Accou-State					
	Total	0	0	0	0	
Oper	rating Impacts					

### **Operating Impacts**

### **No Operating Impact**

### **Narrative**

This infrastructure renewal project does not require increased operational staffing.

# **Capital Project Request**

### 2025-27 Biennium

<u>Parameter</u>	Entered As	Interpreted As
Biennium	2025-27	2025-27
Agency	360	360
Version	24-A	24-A
Project Classification	*	All Project Classifications
Capital Project Number	*	All Project Numbers
Sort Order	Project Class	Project Class
Include Page Numbers	N	No
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

### **APPENDIX A**

Project costs captured in the project C-100 are based on these detailed cost estimates developed for our Energy Renewal Plan (see below). For this project, quantities are modified to fit the reduced scope (for example, one electrode boiler in lieu of three in the detailed estimate).

P-10 Power Plant PHW System							
DESCRIPTION		QTY	UNIT		UNIT\$	TOTAL	COMMENTS
01 GENERAL REQUIREMENTS							
	TOTAL - DIV 1					\$ -	
02 EXISTING CONDITIONS							
<b>02411600 Selective Building Interior Demolition</b> Boiler B-5 Demolition		1	16	٠	250,000.00	\$ 250,000.00	
Exterior Wall Demo for Access & new OH Door		192	LS SF	\$	100.00	\$ 19,200.00	OH Door incl. in P-8
Misc. Concrete & Steel Support Demolition		10,000	SF	\$	10.00	\$ 100,000.00	
02800200 Hazardous Material Site Remediation Hazardous Materials Remediation Allowance			LS			None Assumed	
	TOTAL - DIV 2					\$ 369,200.00	
03 CONCRETE							
03 30 00 Cast in Place Concrete  Housekeeping Pad - Steam to Hot Water HX (4) (SC-1,2,3,4)		1,800	SF	\$	65.00	\$ 117,000.00	Boiler Room
Housekeeping Pad - Secondary HW Pumps (4) (SPHWP-1,2,3,4)	114 D Q Q)	240	SF SF	\$	65.00	\$ 15,600.00	
Housekeeping Pad - Sidecare HW Loop (Steam to HW HX) (2) (SPI Housekeeping Pad - Misc. Equipment	HVV P-8,9)	150 1	LS	\$ \$	65.00 15,000.00	\$ 9,750.00 \$ 15,000.00	
	TOTAL - DIV 3					\$ 157,350.00	
04 MASONRY							
04 20 00 Unit Masonry CMU Exterior Walls						None Assumed	
	TOTAL - DIV 4					\$ -	
05 METALS							
05 10 00 Structural Metal Framing	Diet		T	,	15 000 00	¢ 450,000 ==	
Building Structural Upgrades for new Mech Equipment & Piping I Structural Framing for New Opening to remove B-5 & install HRC		10 1	Ton LS	\$ \$	15,000.00 15,000.00		
	TOTAL - DIV 5					\$ 165,000.00	
07 THERMAL & MOISTURE PROTECTION							
	TOTAL - DIV 7					\$ -	
08 OPENINGS							
<b>08 30 00 Specialty Doors and Frames</b> Overhead Coiling Door for Chiller Access & Boiler Removal		-	LS	\$	-	\$ -	Included in P-8
	TOTAL - DIV 8					\$ -	
09 FINISHES							
	TOTAL - DIV 9					\$ -	
10 SPECIALTIES	TOTAL - DIV 10					\$ -	
13 SPECIAL CONSTRUCTION							
	TOTAL - DIV 13					\$ -	
21 FIRE SUPPRESSION							
21 10 Water Based Fire Suppression Systems MEP Building Fire Suppression System		-	LS	\$	=	None Assumed	
	TOTAL - DIV 21					\$ -	
22 PLUMBING							
22 00 00 General Plumbing Plumbing Trade Permits		1	LS	Ś	_	\$ -	
		-		,		*	
22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods		-	SF	\$	-	None Assumed	
22 30 00 Plumbing Equipment							
MEP Building Plumbing Fixture Allowance						None Assumed	
	TOTAL - DIV 22					\$ -	
23 HVAC 23 00 00 General HVAC							
HVAC Trade Permits		1	LS	\$	12,800.00	\$ 12,800.00	
23 20 00 HVAC Piping		***	15		250.00	¢ 25.000 ==	
SC Sidecar piping interconnects to secondary HW piping loop Steam piping to SC-1		140 200	LF LF	\$		\$ 70,000.00	
Secondary Hot Water Piping		580	LF	\$	250.00	\$ 145,000.00	
23 70 00 Central HVAC Equipment Steam to Hot Water HX's (4) (SC-1,2,3,4)		4	EA	\$	550,000.00	\$ 2,200,000.00	
Sidecar Pumps (2) (SPHWP-8,9) Secondary Hot Water Pumps (4) (SPHWP-1,2,3,4)		2 4	EA EA	\$		\$ 250,000.00	
Secondary not water runips (4) (SPAWP-1,2,3,4)	TOTAL - DIV 23	4	EA	ş	123,000.00	\$ 3,212,800.00	
A	TOTAL-DIV 23					y 3,212,800.00	
25 INTEGRATED AUTOMATION 25 50 00 Integrated Automation Facility Controls							
Controls HX'x Controls Pumps		4 6	EA EA	\$ \$	60,000.00 10,000.00		
control and	TOTAL - DIV 25	-		,	10,000.00	\$ 300,000.00	
	I JIAL-DIV 23					- 300,000.00	

## **APPENDIX A - CONT.**

10 Power Plant PHW System						
DESCRIPTION	QTY	UNIT	UNIT\$		TOTAL	COMMENTS
C. PLECTRICAL						
6 ELECTRICAL						
26 00 00 General Electrical						
Temporary Construction Power & Lighting	-	LS	\$ 1.50	\$	-	
26 20 00 Electrical Distribution						
13.8kV Medium Voltage 15kV Circuit Breakers in Gear from SOW E-2	4	EA	\$ 40,000.00	\$	160,000.00	
Medium Voltage Unit Substations - 1500kVA w/ 4160v	4	EA	\$ 250,000.00	\$	1,000,000.00	
Mech. 480V Distribution to Pump and VFDs from unit substations	6	EA	\$ 20,000.00	\$	120,000.00	
TOTAL - DIV	26			\$	1,280,000.00	
EARTHWORK TOTAL-DIV	31			Ś		
	-					
EXTERIOR IMPROVEMENTS						
TOTAL - DIV	32			\$	-	
UTILITIES						
TOTAL - DIV	33			\$	-	·
<u>-</u>			 		_	·
TOTAL P-10 Power Plant PHW System	n			\$	5,484,350.00	

## **APPENDIX A - CONT.**

DESCRIPTION		QTY	UNIT		UNIT\$	TOTAL	COMMENTS
1 GENERAL REQUIREMENTS	TOTAL - DIV 1					\$ -	
2 EXISTING CONDITIONS							
02411600 Selective Building Interior Demolition							
Misc. Concrete & Steel Support Demolition		1	LS	\$	10,000.00	\$ 10,000.00	)
02800200 Hazardous Material Site Remediation							
Hazardous Materials Remediation Allowance			LS			None Assumed	
	TOTAL - DIV 2					\$ 10,000.00	)
03 CONCRETE 03 30 00 Cast in Place Concrete							
Housekeeping Pad - Electrode Boilers (EB-1,2,3) w/ Si		300	SF	\$	65.00	\$ 19,500.00	
Housekeeping Pad - Steam to HW Heat Exchangers (S Housekeeping Pad - HW Heat Exchangers for Gensets		256 320	SF SF	\$ \$	65.00 65.00	\$ 16,640.00 \$ 20,800.00	
Housekeeping Pad - Boiler Feederwater Pumps (SPH)		192	SF	\$	65.00	\$ 12,480.00	)
Housekeeping Pad - Drups HR Pumps Housekeeping Pad - Genset HR Pumps		98 245	SF LS	\$ \$	65.00 65.00	\$ 6,370.00 \$ 15,925.00	
	TOTAL - DIV 3					\$ 91,715.00	
	101/12 21/0					ÿ 51,715.00	
4 MASONRY							
	TOTAL - DIV 4					\$ -	
05 METALS							
05 10 00 Structural Metal Framing Building Structural Upgrades for new Mech Equipme	nt & Piping Dist.	15	Ton	\$	15,000.00	\$ 225,000.00	
	TOTAL - DIV 5					\$ 225,000.00	)
07 THERMAL & MOISTURE PROTECTION						,	
07 THERMAL & MOISTURE PROTECTION	TOTAL - DIV 7					\$ -	
D8 OPENINGS							
08 30 00 Specialty Doors and Frames							
Overhead Coiling Door for Chiller Access & Boiler Rer	noval	-	LS	\$	-	\$ -	Included in P-8
	TOTAL - DIV 8					\$ -	
09 FINISHES							
	TOTAL - DIV 9					\$ -	
10 SPECIALTIES	TOTAL - DIV 10					\$ -	
13 SPECIAL CONSTRUCTION						·	
13 31 ECIAL CONSTRUCTION	TOTAL - DIV 13					\$ -	
21 FIRE SUPPRESSION							
21 FIRE SUPPRESSION	TOTAL - DIV 21					\$ -	
22 PLUMBING	TOTAL - DIV 21					\$ -	
	TOTAL - DIV 21		SF	\$		\$ -	
22 PLUMBING 221000 Plumbing Piping MEP Building Plumbing Piping Mods	TOTAL - DIV 21		SF	\$	-		
22 PLUMBING 22 10 00 Plumbing Piping	TOTAL - DIV 21		SF	\$			
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment	TOTAL - DIV 21  TOTAL - DIV 22		SF	\$		None Assumed	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance			SF	\$	-	None Assumed	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance 23 HVAC 23 00 00 General HVAC		-			-	None Assumed  None Assumed	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  32 HVAC		1	SF	\$	33,895.00	None Assumed  None Assumed	)
MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping			LS	\$		None Assumed  None Assumed  \$ -	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping		- 1 250 150			33,895.00 750.00 875.00	None Assumed  None Assumed  \$ -  \$ 33,895.00  \$ 187,500.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping		250	LS	\$	750.00	None Assumed  None Assumed  \$ -  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping 23 70 00 Central HVAC Equipment	TOTAL - DIV 22	250 150 400	LS LF LF	\$ \$ \$ \$	750.00 875.00 600.00	None Assumed  None Assumed  \$ -  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping 23 70 00 Central HVAC Equipment 6WW Electrode Boilers (EB-1,2,3) incl. sidecar pumps	TOTAL - DIV 22	250 150 400	LS LF LF LF	\$ \$ \$ \$ \$	750.00 875.00 600.00	None Assumed  None Assumed  \$ -  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 4,350,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping 23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5)	TOTAL - DIV 22	250 150 400 3 3 5	LS LF LF LF EA EA EA	\$ \$\$\$\$	750.00 875.00 600.00 2,450,000.00 550,000.00 305,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 4,350,000.00  \$ 1,650,000.00  \$ 1,525,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7)	TOTAL - DIV 22	250 150 400	LS LF LF LF EA EA	\$ \$ \$ \$ \$	750.00 875.00 600.00 2,450,000.00 550,000.00 305,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 4,350,000.00  \$ 1,650,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps	TOTAL - DIV 22	250 150 400 3 3 5 3	LS LF LF LF EA EA EA EA	\$ \$\$\$\$ \$ \$\$\$\$\$	750.00 875.00 600.00 1,450,000.00 550,000.00 305,000.00 25,000.00 45,000.00	None Assumed  \$ \$ 33,895.00 \$ 187,500.00 \$ 131,250.00 \$ 240,000.00 \$ 1,650,000.00 \$ 1,525,000.00 \$ 75,000.00 \$ 90,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12)	TOTAL - DIV 22	250 150 400 3 3 5 3	LS LF LF LF EA EA EA EA	\$ \$ \$ \$ \$ \$	750.00 875.00 600.00 4,450,000.00 550,000.00 305,000.00 25,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,650,000.00  \$ 1,525,000.00  \$ 75,000.00  \$ 90,000.00  \$ 90,000.00  \$ 225,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment GMW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps	TOTAL - DIV 22	250 150 400 3 3 5 3	LS LF LF LF EA EA EA EA	\$ \$\$\$\$ \$ \$\$\$\$\$	750.00 875.00 600.00 1,450,000.00 550,000.00 305,000.00 25,000.00 45,000.00	None Assumed  \$ \$ 33,895.00 \$ 187,500.00 \$ 131,250.00 \$ 240,000.00 \$ 1,650,000.00 \$ 1,525,000.00 \$ 75,000.00 \$ 90,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps Genset HR Pumps	TOTAL - DIV 22	250 150 400 3 3 5 3	LS LF LF LF EA EA EA EA	\$ \$\$\$\$ \$ \$\$\$\$\$	750.00 875.00 600.00 1,450,000.00 550,000.00 305,000.00 25,000.00 45,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,650,000.00  \$ 1,525,000.00  \$ 75,000.00  \$ 90,000.00  \$ 90,000.00  \$ 225,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps Genset HR Pumps  25 INTEGRATED AUTOMATION 25 50 00 Integrated Automation Facility Controls	TOTAL - DIV 22	250 150 400 3 3 5 3	LS  LF  LF  LF  EA  EA  EA  EA  EA	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	750.00 875.00 600.00 .450,000.00 .550,000.00 25,000.00 45,000.00 45,000.00	None Assumed  None Assumed  \$  \$ 187,500.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,525,000.00  \$ 1,525,000.00  \$ 90,000.00  \$ 225,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps Genset HR Pumps  25 INTEGRATED AUTOMATION  25 50 00 Integrated Automation Facility Controls Controls Electrode Boilers Controls Electrode Boilers Controls Electrode Boilers	TOTAL - DIV 22	250 150 400 3 3 5 3 2 5	LS LF LF LF LF EA EA EA EA EA	\$ \$	750.00 875.00 600.00 .450,000.00 305,000.00 25,000.00 45,000.00 90,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,650,000.00  \$ 1,525,000.00  \$ 90,000.00  \$ 225,000.00  \$ 8,507,645.00  \$ 270,000.00  \$ 180,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps Genset HR Pumps  25 INTEGRATED AUTOMATION  25 50 00 Integrated Automation Facility Controls Controls HX'x (Steam to HW) Controls HX'x (Generators)	TOTAL - DIV 22	250 150 400 3 3 3 5 3 2 5	LS  LF  LF  LF  EA  EA  EA  EA  EA  EA	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	750.00 875.00 600.00 .450,000.00 .550,000.00 25,000.00 45,000.00 45,000.00	None Assumed  None Assumed  \$  \$ 187,500.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,655,000.00  \$ 75,000.00  \$ 90,000.00  \$ 8,507,645.00  \$ 2270,000.00  \$ 300,000.00  \$ 300,000.00	
22 PLUMBING 22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods 22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC 23 00 00 General HVAC HVAC Trade Permits 23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps Genset HR Pumps  25 INTEGRATED AUTOMATION 25 50 00 Integrated Automation Facility Controls Controls HX'x (Steam to HW) Controls HX'x (Generators) Controls Pumps - Soiler Feederwater	TOTAL - DIV 22	250 150 400 3 3 5 3 2 5 5	LS  LF  LF  LF  LF  EA  EA  EA  EA  EA  EA  EA  EA  EA  E	\$ \$\$\$\$ \$ \$\$\$\$\$	750.00 875.00 600.00 .450,000.00 305,000.00 25,000.00 45,000.00 90,000.00 60,000.00 10,000.00	None Assumed  None Assumed  \$  \$ 33,895.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,650,000.00  \$ 1,525,000.00  \$ 90,000.00  \$ 225,000.00  \$ 8,507,645.00  \$ 270,000.00  \$ 180,000.00  \$ 300,000.00  \$ 30,000.00  \$ 30,000.00  \$ 30,000.00	
22 PLUMBING  22 10 00 Plumbing Piping MEP Building Plumbing Piping Mods  22 30 00 Plumbing Equipment MEP Building Plumbing Fixture Allowance  23 HVAC  23 00 00 General HVAC HVAC Trade Permits  23 20 00 HVAC Piping PHW Piping Steam piping to SC-5,6,7 Secondary Hot Water Piping  23 70 00 Central HVAC Equipment 6MW Electrode Boilers (EB-1,2,3) incl. sidecar pumps Steam to HW Heat Exchangers (SC-5,6,7) HW Heat Exchangers for Gensets (HX-1,2,3,4,5) Boiler Feederwater Pumps (SPHWP-10,11,12) Drups HR Pumps  25 INTEGRATED AUTOMATION  25 50 00 Integrated Automation Facility Controls Controls HX'x (Steam to HW) Controls HX'x (Steam to HW) Controls HX'x (Steam to HW) Controls Pumps - Sidecar Boiler	TOTAL - DIV 22	250 150 400 3 3 3 5 3 2 5 5	LS LF LF LF EA EA EA EA EA EA EA	\$ \$\$\$\$ \$\$\$\$	750.00 875.00 600.00 .450,000.00 .550,000.00 .25,000.00 .45,000.00 .45,000.00 .90,000.00 .60,000.00 .10,000.00	None Assumed  None Assumed  \$  \$ 187,500.00  \$ 187,500.00  \$ 131,250.00  \$ 240,000.00  \$ 1,655,000.00  \$ 75,000.00  \$ 90,000.00  \$ 225,000.00  \$ 225,000.00  \$ 8,507,645.00  \$ 270,000.00  \$ 300,000.00  \$ 300,000.00  \$ 300,000.00  \$ 300,000.00  \$ 300,000.00  \$ 300,000.00	

## **APPENDIX A - CONT.**

DESCRIPTION	QTY	UNIT	UNIT\$		TOTAL	COMMENTS
ELECTRICAL						
00 00 General Electrical						
Temporary Construction Power & Lighting	-	LS	\$ 1.50	\$	-	
20 00 Electrical Distribution						
Medium Voltage 15kV Circuit Breakers for Boilers (gear in SOW E-2)	3	EA	\$ 40,000.00	\$	120,000.00	
Medium Voltage Distr. To Boilers	3	EA	\$ 10,000.00		30,000.00	
480V Distribution to Pump and VFDs from unit substations	13	EA	\$ 5,000.00	\$	65,000.00	
TOTAL - DIV	26			\$	215,000.00	
ARTHWORK						
TOTAL - DIV	31			\$	-	
XTERIOR IMPROVEMENTS						
TOTAL - DIV	32			\$	-	
JTILITIES						
TOTAL - DIV	33			Ś		·

### **APPENDIX B**

UNIVERSITY of WASHINGTON

# **PRIDE POINTS 2024-2025**



### AFFORDABILITY AND ACCESS

- In 2023–24, 71% of all UW undergraduates graduated with no known debt, and those who borrowed still graduated with less debt than the national average.
- In 2023–24, 22% of UW undergraduates were eligible for Federal Pell Grant funding. As of the most recent data (2023–24), more than 9,800 UW undergraduates received Pell Grants.
- In 2023–24, 20% of UW undergraduates from Washington (approximately 6,625) were eligible for the Husky Promise, which covers the tuition and fees of students with financial need.

### AWARDS AND HONORS

- The UW is one of the best universities in the world, ranked No. 2 among U.S. public institutions, and tied for No. 7 globally by U.S. News & World Report.
   In addition, the UW is ranked No.18 globally by the Academic Ranking of World Universities.
- The UW's graduate and professional degree programs were recognized as among the best in the nation according to U.S. News & World Report's 2025 Best Graduate School rankings, where more than 30 programs placed in the top 10.
- The UW is home to 8 Nobel Prize winners; 19
   MacArthur Fellows; 204 members of the National
   Academies of Sciences, Engineering, and Medicine; and
   202 fellows in the American Association for the
   Advancement of Science.
- In 2023-24, the UW was recognized as a top producer of Fulbright U.S. Students and Scholars. 14 UW students received Fulbright awards and 3 faculty members were named Fulbright Scholars.
- The UW was ranked 17th in the nation among public universities on the Washington Monthly 2024 National University Rankings, which ranks schools based on their contribution to the public good.

- Since the Husky Promise began in 2007, more than 60,000 students across the UW's three campuses have received support from the program.
- In 2023–24, about 55% of UW undergraduates received some form of financial aid, approximately \$457 million.
- In 2023–24, the UW awarded more than \$100 million in institutional grants and scholarships to Washington residents.
- In 2023–24, approximately 13,750, or 41%, of UW students received funds from the Washington College Grant.

### RESEARCH AND SERVICE

- The UW receives more federal research dollars than any other U.S. public university; in FY23, the UW received \$1.87 billion in total research awards (federal and non-federal sources).
- According to the 2019 UW Economic Impact Report, as the 5th largest employer in Washington State, the UW supports or sustains a total of 100,520 jobs - one out of every 37 jobs in the state, with an annual economic impact of \$15.7 billion.
- Since 1991, CoMotion spinoffs have raised over \$8.7 billion in funding, with \$4.1 billion secured over the past 5 years alone. As of July 2023, there are 110 active UW spinoffs with over 1,071 employees.
- The UW is ranked the No. 1 most innovative public university in the world by Reuters, which examines scholarly articles and patent applications.
- Over 40 UW-affiliated experts are included in the Highly Cited Researchers 2023 list from Clarivate. The annual list identifies researchers who demonstrated significant influence in their field through the publication of multiple highly-cited papers during the last decade.

# STATE OF WASHINGTON AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2025

Agency	University of Washington
Project Name	Power Plant Electrification & Campus Hot Water Loop - Phase 1
OFM Project Number	40000213

Contact Information					
Name	John Wetzel				
Phone Number	206-616-5924				
Email	wetzej@uw.edu				

Statistics							
Gross Square Feet	N/A	MACC per Gross Square Foot					
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot					
Alt Gross Unit of Measure							
Space Efficiency		A/E Fee Class	В				
Construction Type	Other Sch. B Projects	A/E Fee Percentage	7.17%				
Remodel	No	Projected Life of Asset (Years)	30				
	Addition	al Project Details					
Procurement Approach	DB-Progressive	Art Requirement Applies	No				
Inflation Rate	3.16%	Higher Ed Institution	Yes				
Sales Tax Rate %	10.35%	Location Used for Tax Rate	Seattle				
Contingency Rate	5%						
Base Month (Estimate Date)	September-24	OFM UFI# (from FPMT, if available)					
Project Administered By	Agency						

Schedule							
Predesign Start	July-26	Predesign End	October-26				
Design Start	October-26	Design End	May-27				
Construction Start	May-27	Construction End	September-28				
Construction Duration	17 Months						

Project Cost Summary						
Total Project	\$43,200,109	Total Project Escalated	\$47,499,634			
		Rounded Escalated Total	\$47,500,000			
Amount funded in Prior Biennia			\$0			
Amount in current Bienniur	n		\$47,500,000			
Next Biennium			\$0			
Out Years			\$0			

	Acc	quisition	
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0
	Comouli	ant Services	
Predesign Services	\$0	ant Services	
Design Phase Services	\$1,650,585		
Extra Services	\$1,022,000		
Other Services	\$1,022,000		
Design Services Contingency	\$541,741		
Consultant Services Subtotal	\$3,955,893	Consultant Services Subtotal Escalated	\$4,295,427
	•		
_	Cons	struction	
Maximum Allowable Construction	\$31,537,000	Maximum Allowable Construction Cost	\$34,690,943
Cost (MACC)		(MACC) Escalated	<del>\</del>
DB-Progressive Risk Contingencies	\$0		
DB-Progressive Management	\$0		
Owner Construction Contingency	\$1,826,350		\$2,025,057
Non-Taxable Items	\$0		\$0
Sales Tax	\$3,453,107	Sales Tax Escalated	\$3,800,106
Construction Subtotal	\$36,816,457	Construction Subtotal Escalated	\$40,516,106
	Eat	uipment	
Equipment	\$0	, p. me m	
Sales Tax	\$0		
Non-Taxable Items	\$0		
Equipment Subtotal	\$0	Equipment Subtotal Escalated	\$0
		rtwork	40
Artwork Subtotal	\$0	Artwork Subtotal Escalated	\$0
	Agency Proje	ect Administration	
Agency Project Administration			
Subtotal	\$1,562,759		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$708,000		
Project Administration Subtotal	\$2,270,759	Project Administration Subtotal Escalated	\$2,517,818
Project Administration Subtotal	72,210,133	Project Administration Subtotal Escalated	72,317,010
	Oth	ner Costs	
Other Costs Subtotal	\$157,000	Other Costs Subtotal Escalated	\$170,283
·			
	Project C	ost Estimate	
Total Project	\$43,200,109	Total Project Escalated	\$47,409,634
Total Project	343,200,103		\$47,499,634 \$47,500,000
		Rounded Escalated Total	\$47,500,000

## **Funding Summary**

				<del>-</del>	
			Current Biennium		
	Project Cost (Escalated)	Funded in Prior Biennia	2025-2027	2027-2029	Out Years
Acquisition					
Acquisition Subtotal	\$0				\$0
Consultant Services					
Consultant Services Subtotal	\$4,295,427		\$4,295,427		\$0
Construction					
Construction Subtotal	\$40,516,106		\$40,516,106		\$0
Equipment					
Equipment Subtotal	\$0				\$0
Artwork					
Artwork Subtotal	\$0				\$0
Agency Project Administration					
Project Administration Subtotal	\$2,517,818		\$2,517,818		\$0
Other Costs					
Other Costs Subtotal	\$170,283		\$170,283		\$0
Project Cost Estimate					
Total Project	\$47,499,634	\$0	\$47,499,634	\$0	
	\$47,500,000	\$0	\$47,500,000	\$0	\$0
	Percentage requested as	a new appropriation	100%		
				<u> </u>	
				<b>.</b>	
What is planned for the requeste	ed new appropriation? (E	x. Acquisition and desi	gn, phase 1 construction	n, etc. )	
Design, permitting, and construction	of an electrode boiler, hea	t exchangers/pumps, and	d initial hot water distribut	ion loop.	
Insert Row Here					
What has been completed or is u	nderway with a previous	appropriation?			
Not applicable.					
Insert Row Here					
What is planned with a future ap	propriation?				
Continued implementation of the UV		onization) Plan.			
Insert Row Here					

Acquisition Costs						
ltem	Base Amount	Escalation Factor	<b>Escalated Cost</b>	Notes		
Purchase/Lease		1 40001				
Appraisal and Closing						
Right of Way						
Demolition						
Pre-Site Development						
Other						
Insert Row Here		_				
ACQUISITION TOTAL	\$0	NA	\$0			

	Consult	tant Services		
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.0652	\$0	Escalated to Design Start
2) Construction Documents				
2) Construction Documents	¢1 650 505			600/ of A/E Dasia Comises
A/E Basic Design Services Other	\$1,650,585			69% of A/E Basic Services
Insert Row Here				
	Ć1 CEO EOE	1.0740	Ć1 774 040	Facility of the Mild Design
Sub TOTAL	\$1,650,585	1.0748	\$1,774,049	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	\$417,000			
Geotechnical Investigation	Ş417,000			
Commissioning	\$179,000			
Site Survey	\$112,000			
Testing	\$114,000			
LEED Services	\$114,000			
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant	\$200,000			
Other	\$200,000			
Insert Row Here				
Sub TOTAL	\$1,022,000	1.0748	\$1.098.446	Escalated to Mid-Design
000.00	<del>+-101000</del>		<del>+ -   -   -   -   -   -   -   -   -   - </del>	
4) Other Services				
Bid/Construction/Closeout	\$741,567			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	\$741,567	1.1088	\$822,250	Escalated to Mid-Const.
5) Design Services Contingency	· · · · · · · · · · · · · · · · · · ·			
Design Services Contingency	\$170,708			
Sales Tax on Design Services	\$371,033			
Insert Row Here		ļ		
Sub TOTAL	\$541,741	1.1088	\$600,682	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$3,955,893		\$4,295,427	

	Construc	tion Contracts		
Item	Base Amount	Escalation	Escalated Cost	Notes
		Factor		
1) Site Work	¢2.500.000			
G10 - Site Preparation	\$2,500,000			
G20 - Site Improvements	\$626,000			
G30 - Site Mechanical Utilities	\$4,614,000			
G40 - Site Electrical Utilities	\$460,000			
G60 - Other Site Construction	\$2,808,000			
Hazardous Materials Disposal	\$450,000			
Insert Row Here	Ć44 450 000	1.0046	Ć42 427 247	
Sub TOTAL	\$11,458,000	1.0846	\$12,427,347	
2) Polotod Project Costs				
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention Other				
Insert Row Here				
	\$0	1.0846	¢0	
Sub TOTAL_	\$0	1.0846	\$0	
3) Facility Construction				
A10 - Foundations	\$88,000			
A20 - Basement Construction	ψου,σου			
B10 - Superstructure	\$41,000			
B20 - Exterior Closure	, ,,,,,,			
B30 - Roofing				
C10 - Interior Construction	\$2,255,000			
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems	\$5,073,000			
D40 - Fire Protection Systems				
D50 - Electrical Systems	\$490,000			
F10 - Special Construction	\$405,000			
F20 - Selective Demolition	\$102,000			
General Conditions	\$6,748,000			
Other Direct Costs	\$4,877,000			
Insert Row Here		-		
Sub TOTAL	\$20,079,000	1.1088	\$22,263,596	
4) Maximum Allowable Construction Co				
MACC Sub TOTAL	\$31,537,000		\$34,690,943	
Λ	VA		NA	per GSF

	This Section is I	ntentionally Left	Blank	
7) Owner Construction Contingency	64 576 050			
Allowance for Change Orders	\$1,576,850		Ī	
Tariff Contingency	\$249,500			
Insert Row Here	Å1 00C 050	4.4000	42.005.055	
Sub TOTAL_	\$1,826,350	1.1088	\$2,025,057	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1088	\$0	
9) Sales Tax				
Sub TOTAL	\$3,453,107		\$3,800,106	
_				
CONSTRUCTION CONTRACTS TOTAL	\$36,816,457		\$40,516,106	

	Equipment					
ltem	Base Amount		Escalation Factor	Escalated Cost	Notes	
1) Equipment						
E10 - Equipment						
E20 - Furnishings						
F10 - Special Construction						
Other						
Insert Row Here			_			
Sub TOTAL	\$0		1.1088	\$0		
		,				
2) Non Taxable Items						
Other						
Insert Row Here			_			
Sub TOTAL	\$0		1.1088	\$0		
		,				
3) Sales Tax						
Sub TOTAL	\$0			\$0		
EQUIPMENT TOTAL	\$0			\$0		

Artwork						
Item	Base Amount	Escalation Factor	Escalated Cost	Notes		
1) Artwork		•				
Project Artwork	\$0			0.5% of total project cost for new construction		
Higher Ed Artwork	\$237,498			0.5% of total project cost for new and renewal construction		
Accounting Entry	-\$237,498			N/A for Infrastructure		
Insert Row Here						
ARTWORK TOTAL	\$0	NA	\$0			

Project Management						
ltem	Base Amount	Escalation	Escalated Cost	Notes		
item	base Amount	Factor	Escalateu Cost	Notes		
1) Agency Project Management						
Agency Project Management	\$1,562,759					
Additional Services						
Construction Management	\$408,000					
In Plant Services	\$300,000					
Insert Row Here						
Subtotal of Other	\$708,000		•			
PROJECT MANAGEMENT TOTAL	\$2,270,759	1.1088	\$2,517,818			

Other Costs						
ltem	Base Amount	Escalation	Escalated Cost	Notes		
		Factor				
Mitigation Costs						
Hazardous Material						
Remediation/Removal						
Historic and Archeological Mitigation						
UWPD/Traffic Control	\$77,000					
Builder's Risk Insurance	\$80,000					
OTHER COSTS TOTAL	\$157,000	1.0846	\$170,283			

# C-100 (2026) Additional Notes

Tab A. Acquisition
Insert Row Here
Tab B. Consultant Services
Insert Row Here
Tab C Canatomatica Cantomata
Tab C. Construction Contracts
Insert Row Here
Institution nere
Tab D. Equipment
Mechancial equipment is included in construction costs.
Insert Row Here
Tab E. Artwork
Utility work located within the existing Power Plant; no artwork is required.
Insert Row Here
Tab F. Project Management
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Insert Row Here
Tab G. Other Costs
Tab G. Other Costs
Incart Pow Hara

### **Availability of Space/Campus Utilization Template**

Project name: Power Plant Elect. & Campus Hot Water Loop	CBS/OFM Project #: 40000213	
Institution: University of Washington	Category: Infrastructure	
Campus/Location: Seattle Campus		
Enrollment		
2023 fall on-campus student FTE: 50,097	Expected 2024 fall on-campus student FTE: 50,60	00

% increase budgeted:

1.00%

Enter the average number of hours per week each for (a) classroom seat and (b) classroom lab is expected to be utilized in Fall 2024 for the campus where the project is located.

(a) General University Classroom Utilization		(b) General University Lab Utilization		
Fall 2023 Weekly Contact Hours	591,757	Fall 2023 Weekly Contact Hours	3,815	
Multiply by % FTE Increase Budgeted	1.00%	Multiply by % FTE Increase Budgeted	1.00%	
Expected Fall 2024 Contact Hours	597,699	Expected Fall 2024 Contact Hours	3,853	
Expected Fall 2024 Classroom Seats		Expected Fall 2024 Class Lab Seats		
Expected Hours per Week Utilization	-	Expected Hours per Week Utilization		
HECB utilization standard (hours/GUC seat)	22.0	HECB utilization standard (hour/GUL seat)	16.0	
Difference in utilization standard	-100.0%	Difference in utilization standard	-100.0%	

If the campus does not meet the 22 hours per classroom seat and/or the 16 hours per class lab HECB utilization standards, describe any institutional plans for achieving the utilization standard.

The Power Plant Electrification & Campus Hot Water Loop - Phase 1 is related to our utility infrastructure and decarbonization efforts.

This project is essential to maintaining our campus utility infrastructure which suppors the current utilization numbers and failures could result in multiple buildings being shutdown, greatly reducing current utilization.

### **Reasonableness of Cost Template**

Project name: Power Plant Electrification & Campus Hot Water Loop	CBS/OFM Project #: 40000213
Institution: University of WA	Category: Infrastructure
Campus/Location: Seattle Campus	1

	Construction Begin	Construction End	Construction mid- point	Escalation Multiplier
Construction mid-point:	May-27	September-28	January-28	1.5014
MACC from C-100:	\$34,690,943			

	Expected MACC/GSF in 2019	Expected MACC/GSF	GSF by type	Expected MACC
Classrooms	\$405	\$608		\$0
Instructional labs	\$397	\$596		\$0
Research labs	\$545	\$818		\$0
Administration	\$406	\$610		\$0
Libraries	\$340	\$510		\$0
Athletic	\$385	\$578		\$0
Assembly, exhibit and meeting rooms	\$428	\$643		\$0
			-	\$0

C-100 to expected MACC variance:

The work associated with the Power Plant Electrification & Campus Hot Water Loop - Phase 1 does not translate into expected square footage cost values based on typical space type.

### **Efficiency of Space Allocation**

Efficiency of space allocation. For each major function in the proposed facility (classroom, instructional labs, offices), identify whether space allocations will be consistent with the Facility

The work associated with the Power Plant Electrification & Campus Hot Water Loop - Phase 1 does not translate into expected square footage utilization efficiency values based on typical space type.

### Example: efficiency of space allocation – FEPG standard

FEPG room classification number	FEPG room classification type	Project ASF per station	FEPG standard	Meets standard (Y/N)	Comments
110	Classroom	20	16-26	Υ	
110	Classroom	30	16-26	N	Exceeds standards due to programmatic need for demonstration space
210	Class lab – physical science	70	40-90	Υ	
215	Class lab – services			N/A	Sized appropriately to serve two labs
230	Computer lab	45	60	N	Falls below FEPG guideline, but meets programming needs
250	Research lab	80		N/A	Sized for research program needs
255	Research lab – service			N/A	Sized appropriately to serve research labs
311	Faculty office	140	140	Υ	
311 & 312	Faculty chair office	175	175	Υ	
311 & 312	Dean's office	200	200	Υ	
313	Student assistants	140 per 4	140 per 2 min.	Υ	4 student assistants = 2 FTEs
314	Clerical office	140	140	Υ	2 FTEs
315	Office service, clerical station	100	100	Υ	2 FTEs
316 & 317	Staff & other office	120	120	Υ	
350	Conference room	300	310	N	Total SF shown; FEPG = total office area/12; project SF insignificant amount below standards, still meets FEPG guideline of 20 SF per station
610	Auditorium/ lecture hall	20	15-16	N	Additional SF needed to meet ADA requirements due to site conditions
FEPG room classification number	FEPG room classification type	Project ASF per station	FEPG standard	Meets standard (Y/N)	Comments
760	Hazardous material storage		As appropriate by code	N/A	Sized appropriately to serve labs
770	Hazardous waste storage		As appropriate by code	N/A	Sized appropriately to serve labs

Identify the (a) assignable square feet in the proposed facility; (b) the gross square feet; and (c) the net building efficiency ("a" divided by "b").

### **Condition of Building**

### Instructions:

Provide the facility's condition score (1 superior – 5 marginal functionality) from the 2016 Comparable Framework study, and summarize the major structural and systems conditions that resulted in that score. Provide selected supporting documentation in appendix, and reference them in the body of the proposal.

### Narrative Response:

The assets being addressed by the Power Plant Electrification & Campus Hot Water Loop - Phase 1 project are not associated with specific buildings or facility numbers, but rather utility systems that are not tracked in the OFM Database or FPMT.

### **Enrollment Growth**

### Instructions:

Identify the estimated number of additional FTE students the project is expected to enable the institution to serve when the space is fully occupied. Describe the method by which additional FTEs are calculated, including an analysis of probable student enrollment demand from project completion to full occupancy. Also provide an estimate of the number of additional FTE enrollments in high-demand fields and the fields in which such growth is expected to occur.

Per RCW 43.88D.010(1)(a), growth projects must also demonstrate that they can more cost- effectively provide enrollment access than alternatives such as university centers and distance learning.

### **Narrative Response:**

The Power Plant Electrification & Campus Hot Water Loop - Phase 1 project does not affect student enrollment. It is a series of projects that ensure that the campus utility infrastructure can support ongoing teaching, research, and public activities.



# TAB C PROGRAMMATIC PROJECTS

**No Requests** 

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# TAB D GRANT & LOAN PROGRAMS

**No Requests** 

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# TAB E CERTIFICATE OF PARTICIPATION FORMS

**Not Applicable** 

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# TAB F DIRECT PAY FORMS

**Not Applicable** 

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