VII. STANDING COMMITTEES

B. Finance and Asset Management Committee

West Campus Utility Plant – Approve Budget Adjustment and Increase in Internal Lending Program Authorization

RECOMMENDED ACTIONS

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>West Campus Utility Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today’s Actions:</td>
<td>1. Approve a project budget adjustment from $30.5 million to $36.2 million; and 2. Approve an increase in the Internal Lending Program authorization of $5.5 million, from $23 million to $28.5 million</td>
</tr>
</tbody>
</table>
| Previous Actions: | September 2013:  
- Approved site selection  
- Adopted project budget ($30.5 million)  
- Approved use of Internal Lending Program ($23 million)  
- Authorized use of design-build contracting method  
- Delegated authority to award design-build contract |
| Justifications: | - Scope modifications to make the facility compatible with future requirements (up-zoning the University District)  
- Provide water side economizers for efficiency and better flexibility; improved efficiency chillers; underground fuel storage tanks for 96 hours of emergency power  
- Allow flexibility for future capacity and sustainable systems (heat recovery chillers; connections to off-site thermal energy storage system; etc.) |
| Plant in Service: | February 2017 |

INFORMATION

Background:

The purpose of the West Campus Utility Plant (WCUP) is to serve emergency power and chilled water loads for the new Animal Care Research Facility (ARCF), Magnuson Health Sciences and West Campus. The University is using the “progressive” design-build process and meets the $30.5 million budget that was approved at the September 2013 Regents meeting.

The City of Seattle is now exploring up-zoning the University District, which would result in significantly larger chilled water load requirements in the West Campus than were initially planned. In addition, the UW is currently
B. Finance and Asset Management Committee

West Campus Utility Plant – Approve Budget Adjustment and Increase in Internal Lending Program Authorization (continued pg. 2)

studying several new sustainability initiatives, including converting the campus heating system from steam to hot water, employing thermal energy storage, and using lake water cooling.

It is recommended that the current design be modified to include the addition of a partial basement of 1,600 square feet and enlarging the building footprint 800 square feet. This option provides the best value relative to maximizing the building site capacity and providing flexibility for the WCUP to be adapted to future sustainable initiatives. Also included are modest changes to improve operability, efficiency, maintainability, and the overall aesthetics of the facility.

The requested budget adjustment will provide: water side economizers for efficiency and better flexibility; secondary pumps for future thermal storage; improved efficiency chillers; and underground fuel storage tanks for 96 hours of emergency power. The additional space in the building will also allow flexibility for future capacity and sustainable systems such as: heat recovery chillers; connections to a potential future off site thermal energy storage system; future changes in technology; lake water cooling piping; and up to a total of 10,500 tons of mechanical chiller capacity.

Project Description:

The site for the new WCUP is the parcel identified in the UW Seattle Campus Master Plan as development site 41W (see Attachments 1 and 2).

The WCUP is proposed to be a building containing generators, chillers, cooling towers and associated equipment. The building will be constructed adjacent to the existing campus utility tunnel, allowing direct access to the tunnel for distribution of electrical cabling and processed chilled water piping. When fully built out, the plant will have a capacity to produce 12 megawatts (MW) of emergency power and 6,000 tons of processed chilled water. Phase 1 will construct the complete building, install equipment to produce approximately half of the full capacity (6 MW and 3,000 tons), provide space and infrastructure for the future full equipment build-out and run distribution systems sized for the full build-out to the south campus. Emergency power and chilled water will be distributed to the tunnel junction SW-1, at which point the ARCF project will pick up those services for connection and distribution to the facility.

The WCUP is envisioned to be an architecturally significant building, given its prominent location on the southwest campus. Careful attention will be
given to ensuring that the design fits contextually with the surrounding community and is representative of its importance as a gateway building at the southwest approach to the campus. The design will incorporate a demonstration display element that will enable students and the public to gain an understanding of the University’s commitment to the environment and energy conservation.

The requested budget adjustment will provide: water side economizers for efficiency and better flexibility; secondary pumps for future thermal storage; improved efficiency chillers; and underground fuel storage tanks for 96 hours of emergency power. The additional space in the building will also allow flexibility for future capacity and sustainable systems such as: heat recovery chillers; connections to an off site thermal energy storage system; future changes in technology; lake water cooling piping; and up to a total of 10,500 tons chiller capacity.

Schedule:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-build team selection</td>
<td>September 2013 – June 2014</td>
</tr>
<tr>
<td>Design</td>
<td>September 2014 – October 2015</td>
</tr>
<tr>
<td>Construction</td>
<td>July 2015 – February 2017</td>
</tr>
<tr>
<td>Plant in Service</td>
<td>February 2017</td>
</tr>
</tbody>
</table>

Budget and Financing Plan:

The sources and uses for the project are as follows:

**Sources of Funds**

<table>
<thead>
<tr>
<th>Fund</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Lending Program</td>
<td>$28,482,000</td>
</tr>
<tr>
<td>University Funds</td>
<td>$8,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$36,482,000</strong></td>
</tr>
</tbody>
</table>

**Uses of Funds**

<table>
<thead>
<tr>
<th>Use of Funds</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Design and Construction</td>
<td>$36,200,000</td>
</tr>
<tr>
<td>Financing Costs</td>
<td>$282,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$36,482,000</strong></td>
</tr>
</tbody>
</table>

Annual Debt Service

(30 year amortization @4.75% ILP rate): $1,782,907
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The ILP loan will be repaid using ICR revenues and tuition operating funds. When the ILP Loan was first approved by the Board of Regents in September of 2013, debt service was projected to be $1.55 million / year. Should this item be approved, annual debt service is expected to be $235,000 higher.

The debt associated with the project was factored into the institutional debt capacity analysis when it was originally approved by the Board. The $6 million budget increase will have a minimal effect on institutional debt capacity.

Attachments
1. Vicinity Plan
2. Site Plan
3. Summary Project Budget
West Campus Utility Plant [W CUP] – Vicinity Plan
Project #204685
**Project: West Campus Utility Plant**  
Project Number: 204685

ESTIMATED DATE OF COMPLETION: February 2017

<table>
<thead>
<tr>
<th>Project Budget</th>
<th>Total Escalated Cost</th>
<th>% of NPC*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Schematic Design Services</td>
<td>$436,865</td>
<td>1.31%</td>
</tr>
<tr>
<td>Construction Documents</td>
<td>$593,480</td>
<td>1.79%</td>
</tr>
<tr>
<td>Extra Services</td>
<td>$1,094,511</td>
<td>3.29%</td>
</tr>
<tr>
<td>Other Services</td>
<td>$210,000</td>
<td>0.63%</td>
</tr>
<tr>
<td>Consultant Services</td>
<td>$2,334,856</td>
<td>7.03%</td>
</tr>
<tr>
<td>Construction Cost</td>
<td>$23,800,000</td>
<td>71.61%</td>
</tr>
<tr>
<td>Other Contracts</td>
<td>$0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Design-Build Costs</td>
<td>$2,470,000</td>
<td>7.43%</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>$2,830,888</td>
<td>8.52%</td>
</tr>
<tr>
<td><strong>Total Design and Construction Cost</strong></td>
<td><strong>$29,100,888</strong></td>
<td><strong>87.56%</strong></td>
</tr>
<tr>
<td>Equipment &amp; Furnishings</td>
<td>$0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Other Costs</td>
<td>$815,962</td>
<td>2.46%</td>
</tr>
<tr>
<td>Project Management</td>
<td>$983,712</td>
<td>2.96%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>$1,799,674</td>
<td>5.41%</td>
</tr>
<tr>
<td><strong>Net Project Cost before Contingency and Escalation (NPC)</strong></td>
<td><strong>$33,235,418</strong></td>
<td><strong>100.00%</strong></td>
</tr>
<tr>
<td>Design Services Contingency</td>
<td>$40,500</td>
<td>0.1%</td>
</tr>
<tr>
<td>Construction Contingencies</td>
<td>$1,398,488</td>
<td>4.2%</td>
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<tr>
<td>Sales Tax Contingency</td>
<td>$148,512</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Total Contingency</strong></td>
<td><strong>$1,587,500</strong></td>
<td><strong>4.8%</strong></td>
</tr>
<tr>
<td>Escalation at 3.5% per year to construction mid-point</td>
<td>$1,377,082</td>
<td>4.1%</td>
</tr>
<tr>
<td><strong>Total Project Costs</strong></td>
<td><strong>$36,200,000</strong></td>
<td><strong>108.9%</strong></td>
</tr>
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</table>