



**SUBJECT** BC HYDRO SYSTEM REINFORCEMENT STAGE 2

**MEETING DATE** DECEMBER 5, 2017

Forwarded to the Board of Governors on the Recommendation of the President

**APPROVED FOR  
SUBMISSION**

Santa J. Ono, President and Vice-Chancellor

<b>DECISION REQUESTED</b>	<p><b>IT IS HEREBY REQUESTED that the UBC Board of Governors approve:</b></p> <ul style="list-style-type: none"> <li><i>i. Entering into a “Facilities Agreement” with the British Columbia Hydro and Power Authority (“BC Hydro”) in a form approved by the Vice-President Finance &amp; Operations in consultation with the University Counsel to enable necessary system reinforcement infrastructure upgrades to meet the UBC Vancouver campus’s increasing electricity requirements to permit ongoing development of the campus.</i></li> <li><i>ii. Providing BC Hydro ‘security’ in the form of a letter of credit of \$26.3 million to be issued for the benefit of BC Hydro with respect to electrical supply infrastructure upgrades for the UBC Vancouver campus. The capital cost of the upgrades will be recovered by BC Hydro through increased electrical revenue from UBC Vancouver from fiscal year 2015 and finishing fiscal year 2023 (8.4 years).</i></li> <li><i>iii. Requesting a letter of guarantee, issued by the Province of British Columbia for \$26.3 million, to be issued for the benefit of BC Hydro with respect to Stage 2 electrical system reinforcement for the UBC Vancouver campus to replace the letter of credit.</i></li> </ul>
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**Report Date** November 3, 2017

**Presented By** Andrew Simpson, Vice-President Finance & Operations  
David Woodson, Managing Director, Energy & Water Services  
Peter Smailes, Treasurer  
John Metras, Managing Director, Infrastructure Development

**EXECUTIVE SUMMARY**

This item was previously approved by the Board on June 14, 2016 for a letter of credit of \$24M. This request is to increase the \$24M security approval to a limit of \$26.3M due to project cost increases.

Despite current energy conservation and efficiency efforts, forecast electrical growth indicates UBC will exceed its BC Hydro electrical service agreement, of 55 megavolt amperes (MVA), by 2022. UBC is working with BC Hydro on “Stage 2” system reinforcement, which will increase UBC’s electrical service agreement to 65MVA.

UBC is required to execute a Facilities Agreement for the provision of the system reinforcement work by BC Hydro and to provide BC Hydro with a “letter of credit” in December of 2017 to secure UBC’s portion of the Stage 2 capital costs (\$26.3 million). The capital costs will be recovered by BC Hydro through increased electrical revenue from UBC, from fiscal year 2015 to fiscal year 2023 (8.4 years). If the revenue does not increase as projected, UBC will be responsible for paying the remaining unpaid capital costs balance in FY2026 which amount is secured by the letter of credit. Current financial modelling indicates the capital costs will be paid off in FY2023.

In 2016, BC Hydro indicated the letter of credit to be provided by the University would be \$24 million. The BC Hydro Stage 2 detailed estimate was completed in September 2017, and the letter of credit required has increased to \$26.3 million. A letter of credit or a letter of guarantee issued by a corporation other than the customer’s is a legislative requirement imposed on BC Hydro. UBC Board of Governors approval is now requested to enable BC Hydro to proceed expeditiously with the necessary upgrades. UBC Financial Reporting has confirmed that this letter of credit will not be recorded as debt on the University’s Consolidated Statement of Financial Position and therefore will not be recorded as debt on the Province’s financial statements. The annual cost of the letter of credit is approximately \$100,000 per year. Further, in an effort to avoid the cost of the letter of credit beyond the first 12 months of the project, UBC will seek a Provincial letter of guarantee for BC Hydro. The letter of guarantee would be issued by the Ministry of Finance but as it has to be approved by Cabinet will take approximately 9 months. The Ministry of Advanced Education is assisting UBC with the Provincial approval process for the letter of guarantee. If approved, this will replace the Letter of Credit and will eliminate the cost associated with the letter of credit going forward.

UBC may exceed the Stage 2 electrical service agreement (65MVA) by 2030. On-campus electrical co-generation and/or substantive demand-side management initiatives are being evaluated to avoid the need for a Stage 3 upgrade from BC Hydro. UBC also wants to avoid or defer growth-related capital costs connected to our own electrical infrastructure. UBC’s current long-term plan is to manage its electrical demand without exceeding 65MVA.

<p><i>If this item was previously presented to the Board, please provide a brief description of any major changes since that time.</i></p>	<p>On June 9, 2015, UBC Board of Governors received the BC Hydro Stage 2 Upgrades – Letter of Credit Report for information. In that report, UBC indicated that on receipt of the Facilities Study, UBC will provide BC Hydro with a letter of credit to guarantee the capital costs of the Stage 2 system upgrades.</p> <p>On June 14, 2016, UBC Board of Governors was notified that BC Hydro had completed the facilities study and was requesting the \$24M letter of credit from UBC. Since that meeting BC Hydro revised their process to perform more due diligence on the actual project costs. BC Hydro has provided UBC with a detailed estimate and has established an upset limit to UBC’s contribution to the project. BC Hydro is now requesting that UBC sign the facilities agreement for the system reinforcement and provide BC Hydro with security in the form of a letter of credit for \$26.3M.</p>
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**INSTITUTIONAL STRATEGIC PRIORITIES SUPPORTED**

- Learning
  Research
  Innovation
  Engagement
  International  
 (Internal / External)
- or  Operational

<b>DESCRIPTION &amp; RATIONALE</b>	<p>UBC Vancouver’s electricity demand is increasing with campus growth and is forecast to exceed the current system capacity of BC Hydro’s local transmission infrastructure within the next five years. BC Hydro is planning system upgrades to increase UBC capacity by October of 2020. UBC’s share of the capital upgrade cost is \$26.3 million, to be re-paid through future electricity revenue from UBC. UBC is in the process of finalizing the terms of the Facilities Agreement. BC Hydro requires UBC to sign the Facilities Agreement and to issue a security in the form of a letter of credit for UBC’s portion of the capital cost. UBC Financial Reporting has confirmed that this letter of credit will not be recorded as debt on the University’s Consolidated Statement of Financial Position and therefore will not be recorded as debt on the Province’s financial statements.</p>
<b>BENEFITS</b> Learning, Research, Financial, Sustainability & Reputational	<p>Approval of this letter of credit and execution of the Facilities Agreement is essential to enable the BC Hydro electrical transmission upgrades to occur. This will ensure that all learning and research activities on the campus will not be adversely limited by the availability of electricity over the next seven years.</p>
<b>RISKS</b> Financial, Operational & Reputational	<p><b>Reputational:</b> UBC’s electrical demand will exceed the amount BC Hydro is contracted to supply in 2023. A delay in the execution of the project will increase the risk of a campus power outages if UBC is unsuccessful in curtailing its demand requirements.</p> <p><u>Mitigation:</u> UBC’s Energy and Water Services has a contingency plan in place to mitigate the risk of campus wide outages or brownouts. Further, UBC continues to implement electrical demand side management initiatives to extend the date that UBC will exceed the BC Hydro contracted demand.</p> <p><b>Financial:</b> If UBC’s growth were to be dramatically curtailed, or electrical prices dramatically reduced and the letter of credit is not paid off by FY2026, UBC will have to pay BC Hydro the remaining capital cost. Forecast/modelling indicates the letter of credit will be paid off in FY2023.</p> <p><u>Mitigation:</u> The impact of the seven year buffer makes the probability of realizing this risk very low.</p>
<b>COSTS</b> Capital & Lifecycle Operating	<p>The letter of credit is for \$26.3 million. The letter of credit is not considered debt.</p>
<b>FINANCIAL</b> Funding Sources, Impact on Liquidity	<p>No impact on liquidity.</p>
<b>SCHEDULE</b> Implementation Timeline	<p>UBC to issue the letter of credit and execute the Facilities Agreement immediately following Board of Governors approval.</p> <p>BC Hydro Stage 2 Upgrades to be complete by October 2020.</p>

<b>Previous Report Date</b>	June 9, 2015: Board of Governors
<b>Decision</b>	For Information
<b>Action / Follow Up</b>	Upon receipt of the Facilities Agreement, UBC will provide BC Hydro with a letter of credit up to \$24M to guarantee the capital costs of the Stage 2 system upgrades.
<b>Previous Report Date</b>	June 14, 2016: Board of Governors
<b>Decision</b>	Consent Approval
<b>Action / Follow Up</b>	Upon receipt of the Facilities Study, UBC will provide BC Hydro with a letter of credit to guarantee the capital costs of the Stage 2 system upgrades.