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15 December 2025

RE: Campus Sustainability Fund (CSF) Large Grant — Letter of Commitment for “Ultra-Low Temperature Freezer Optimization Through Sensor Monitoring”

Dear Campus Sustainability Fund Review Committee,

The Eichler lab appreciates the opportunity to provide this letter of commitment in support of the Campus Sustainability Fund (CSF) Large Grant proposal "Ultra-Low Temperature Freezer Optimization through Sensor Monitoring." The project has been proposed and will be carried out by a group of students from the University of Washington's Industrial Training & Assessment Center (ITAC). They will lead this effort under the direction of Professor Alex Mamishev and will collaborate and coordinate with relevant campus partners supporting laboratory sustainability and freezer maintenance.

Our research operations require ultra-low temperature (ULT) freezers, which are typically among the most energy-intensive pieces of equipment in laboratory settings. Maintaining reliable ULT freezer operation is a significant priority for our lab and the broader campus research community, alongside efforts to reduce the energy required to do so. Using a measurement-oriented approach in this project provides a viable means to measure energy consumption in ULT freezers and to assess the effectiveness of various preventive maintenance strategies.

If UW ITAC is funded, the Eichler lab is committed to acting as a pilot site for this project and will provide access to its 21 ULT freezer(s) located in Foege N028A & B. We will work with the project team to ensure that installations and any necessary maintenance procedures are scheduled to minimize disruptions to ongoing research and maintain a safe working environment. It is understood that monitoring could involve non-intrusive temperature sensors and non-intrusive electrical energy-measuring devices, and that the sensor(s) will record readings at a specified interval over several stages, including a baseline period, an intervention/maintenance phase, and an after-change period.

To ensure the successful deployment of the project, Eichler lab will make reasonable accommodations to allow access to the freezer(s) for installation and service activities to occur during regular business hours (or as otherwise arranged). It will designate a primary point of contact within the lab to facilitate communication between the lab and the project team regarding scheduling, site access, and operational limitations. The Eichler lab will comply with all safety and compliance requirements related to accessing the lab, including EH&S guidance on lab access protocols and electrical safety. It is also understood that any panel or receptacle modifications will be completed by qualified personnel in accordance with UW policy.

As well as providing equipment access to the project team, the Eichler lab is willing to collaborate with the student team by providing non-sensitive operational context related to interpreting the results of the project (i.e., typical freezer usage patterns, known maintenance history if applicable, and practical constraints on downtime), and to engage in occasional brief check-ins as necessary during the baseline and post-intervention phases. The Eichler lab supports disseminating project findings to other laboratories and campus stakeholders in a manner that safeguards sensitive research information and will help the use of aggregated or de-identified reporting as necessary.

We believe this project exemplifies a high-quality model of student-led sustainability work that can result in quantifiable reductions in environmental impacts while also improving campus capacity for data-

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driven facility and laboratory energy management. We appreciate the opportunity to participate and commit to assisting the project team in developing a safe, rigorous, and actionable pilot deployment.

Sincerely,

A handwritten signature in black ink that reads "Kendra Hoekzema". The signature is written in a cursive, flowing style.

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