It Must Be the Climate

UO's Reliance on Methane Reaches Boiling Point

- What You Need to Know - *by M. Bicakci & M. Babcock*

Fossil Free UO Rally, Oct. 24, 2023 outside Thermal Task Force meeting

On the evening of October 24th, the UO Thermal Systems Task Force held a meeting to inform the community of the possible changes to be made to the university's heating system, and presented the options under consideration. If this is news to you, that is most likely not an accident; members of the **University community received no formal announcement of this meeting and the Thermal Task Force website was only updated retroactively following the event.**

The University of Oregon is currently the largest greenhouse gas (GHG) emitting entity in Eugene according to the State of Oregon Department of Environmental Quality Greenhouse Gas Inventory. The vast majority of UO's methane gas usage is for heating buildings via boilers. Methane is 84 times more potent than carbon dioxide over the first 20 years it is in the atmosphere. Burning methane emits a number of pollutants, including nitrogen oxides (NOx), which have been linked to respiratory issues like asthma. **The University is responsible for over 226 tons of NOx annually, equal to the emissions of approximately 75,052 cars.** None of the current options provided by the Thermal Systems Task Force will eliminate the use of natural gas entirely. However, there are important differences between the options - percent reduction of greenhouse gas emissions and cost. The University insists that the methane-powered boilers must be kept as a backup system; eventually these outdated boilers must be transitioned. **What we can do now is push UO towards the option that will lead to the largest possible greenhouse gas emissions reductions and highest efficiency.**

The task force has outlined five options. A host of climate, housing and justice organizations, unions, and elected officials recommend Option 4 as the only way for the University to meet its GHG emission reduction goals and to rise and meet its potential as a leader for climate action. Let's briefly cover the options in numerical order. **The first is "Systems as Usual", or "no change". For obvious reasons, Option 1 is out of the question.**

Option 2 (now split into 2A and 2B) is the introduction of an electrode boiler alongside the gas-powered boilers. Throughout the meeting, it was clear that **the task force favored 2B over other options because of its "split the difference" qualities - low cost with moderate GHG reductions in the shortest time frame.** The drawback is that this system continues heating buildings with antiquated steam infrastructure, delaying meaningful and necessary climate action. Alternatively, Options 3 and 4 heat with a new hot water system, which is significantly more efficient at heating than steam. **The propensity to stick to tradition is holding back the University from investing in a cleaner energy portfolio**.

Options 3 and 4 call for the most drastic change to current infrastructure through the construction of a heat recovery chiller. **Option 4 would include electric heat pumps and would be supplemented by additional heat capture methods (geothermal technology). As a result, this option is the most costly and would take longer to implement - the members of the task force seem overly concerned with cost-saving over other factors.** The incredible efficiency of Options 3 and Option 4 would save money in the long term while providing greater emissions reductions.

We cannot stop all the average summer temperature increases (estimated to be 10-12°F over the next century) and the subsequent increases to wildfire risk. We cannot stop all the decreases in snowpack in the Cascades. We cannot stop all of the projected reductions to Willamette River flow. We can take action to mitigate some of these changes. **The community must continue to hold UO accountable to its own climate commitments. We must remind the University that without timely and sweeping changes, Eugene and the Willamette Valley will face only more catastrophic changes that will profoundly affect both itself and the greater community.**

Matthew Bicakci is a UO alum (MA, English, 2022) and currently works as Pro Tempore Instructor in the Composition Department.

Molly Babcock is a senior at the UO studying Public Relations, Environmental Studies, and Nonprofit Management, and is the director of the Climate Justice League.

1. https://cpfm.uoregon.edu/community-forums
2. https://www.oregon.gov/deq/ghgp/Pages/GHG-Inventory.aspx
3. https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf, table 8.7
4. https://fossilfreeeugene.org/wp-content/uploads/2023/11/University-of-Oregon-Thermal-Task-Force-Letter.pdf
5. https://www.energy.gov/energysaver/furnaces-and-boilers