



# West Village District Energy

Implementing Advanced Wood Energy at Mt. Bachelor



## Air Quality & Carbon

### Business As Usual:

Uncontrolled emissions + fossil fuels

Poor air quality and CO2 emissions from wildfire and pile & burning woody material

CO2e emissions from propane consumption at Mt. Bachelor

### Biomass Facility:

Clean, efficient energy using a local resource

Creates market demand that supports fire mitigation efforts & reduces pile burning

Reduces CO2e emissions for 5 buildings included in biomass system by approx. 88%, and reduces total emissions across Mt. Bachelor by approx 18%\*

Wood fuel procurement supports local economy

### Did You Know?

Mt. Bachelor is Powdr's 3rd largest consumer of fossil fuels for Scope 1 stationary combustion!

And, it's the largest excluding natural gas consumption.



## AT A GLANCE



Mt. Bachelor spends an average **\$270,000** per year on propane fuel and heating system maintenance



The biomass system is estimated to lower operating costs for heating by **two-thirds**



Construction costs for this project are estimated to be **\$5.5MM**



# THE PROJECT

Mt. Bachelor Ski Resort has recently completed the detailed design and engineering of a state-of-the-art biomass energy facility to provide heat and snow melt for four buildings in the West Village Lodge complex. Mt. Bachelor is now seeking funding to implement the project, and grants are needed to supplement private equity to help get it across the finish line. The advanced wood energy system at Mt. Bachelor would make Deschutes County a national leader in innovative renewable energy that integrates with fire-smart forest management!

### Annual benefits of the biomass facility:

1. Utilizes byproduct of forest management activities that **reduce the risk of high-severity wildfire** in Central Oregon
2. Reduces carbon emissions for 4 buildings served by biomass **by 88%** and drastically **reduces particulate emissions**
3. Replaces approx. **150,000 gallons of propane** with locally sourced woody biomass

## Local Forest Management

Forest restoration activities in Central Oregon aim to reduce the risk of high-severity wildfire events, but generate large amounts of woody material as a byproduct.

This material is currently piled and burned, a costly process that produces uncontrolled smoke and CO2 emissions.

At just over 1,000 tons per year, the Mt. Bachelor biomass facility's wood demand is modest but meaningful: nearly 240 times the system's annual demand is available in Deschutes, Crook, and Jefferson Counties each year – excluding protected habitat and wilderness areas.

### Project Site Plan



### Place-Based Architecture



Highly Efficient, Modern Biomass Technology