



Mitigating Climate Change | Seattle Steam Biomass Boiler

Seattle Steam is concerned about climate change

As the heat provider to nearly 200 buildings, Seattle Steam recognizes its responsibility to reduce its carbon footprint thereby helping its customers to achieve the same goal. The company's investment in a biomass boiler is a direct result of this concern about climate change. The biomass boiler has the capability of cutting Seattle Steam's fossil fuel-based carbon footprint (and that of its customers) by 50 percent.

Seattle Steam is a founding member of [The Climate Registry](#), and has been voluntarily measuring and reporting its greenhouse gas emissions since 2007. This membership not only reflects Seattle Steam's commitment to transparency in its operations, but provides useful benchmarking information for the company to continue to reduce its fossil-based carbon emissions.

Biomass is part of the environmental and economic sustainability solution

Support for Seattle Steam's use of clean urban waste wood as fuel remains strong for several reasons:

- Trees are not being cut down.
- Renewable material is diverted from landfills.
- It greatly reduces the use of fossil fuels.
- The use of biomass to produce heat is three times more efficient than when biomass is burned to make electricity. This means Seattle Steam utilizes only one third of the biomass per kWh of energy produced.

Biomass is recognized by the U.S. Department of Energy as an important part of the solution for U.S. energy independence:

- The Environmental Protection Agency, as well as other regulators and scientists, does not deem biomass to be a contributor of greenhouse gas emissions.
- Biomass energy is considered a "zero-greenhouse-gas-emitting technology" by the Regional Greenhouse Gas Initiative in the Northeast U.S. and the E.U. Emission Trading Scheme.
- Using biomass energy does not add new carbon to the atmosphere, whereas fossil fuel use removes carbon from geologic storage and puts it into the air.
- The advanced emissions controls on biomass facilities significantly reduce the amount of secondary pollutants, NOx, acid gases and particulate matter released into the atmosphere.

Seattle Steam's use of biomass provides a great boost to the local economy, as millions of dollars are spent in Washington state to purchase wood — as opposed to buying natural gas from Canada. Seattle Steam also generates well-paying union jobs.



Sustainably Reliable

District energy is good for climate and economy

A City of Seattle-commissioned study in 2011 confirms that district energy is integral to achieving the City's goal of carbon neutrality by 2050. As Seattle City Councilman Richard Conlin [stated](#), "District energy systems are one of the most effective ways to provide affordable and clean energy for heating and hot water. Generating energy in a central location and distributing it to nearby areas is much more efficient than having separate heating units in each building. Seattle is one of the fortunate cities around the world that already has a very well-functioning district energy system, operated by Seattle Steam Company, and serving some 200 buildings in downtown and on First Hill."

Seattle Steam is creating a more sustainable future

After nearly 120 years in business, Seattle Steam has experienced changes in energy policy, volatile fuel prices and the rising toll of climate change. That is why the company is looking at the next 100 years to make the necessary changes now for a more sustainable future.

The biomass boiler and other initiatives, including a Combined Heat & Power (CHP) plant and Virtual Battery (VB), represent Seattle Steam's continuing innovation to reduce greenhouse gas emissions — as expressed in this graph:

