Going Green with the Microsteam® Turbine

The Microsteam® Turbine not only saves money, but also reduces carbon emissions.

The Microsteam® Turbine

- One Microsteam can reduce your carbon emissions by over 1,607 metric tons/yr.
- The Microsteam can produce electricity with 1.4 lbs CO_2/kWh fewer emissions than the US national fossil fuel average.
- The Microsteam's thermal efficiency is 92%, with the only losses coming in the gearbox and generator.

Here's how:

The Microsteam produces electricity by utilizing steam in any building or plant operation. Steam is typically generated in an 85% efficient natural gas boiler. Combined with the 92% thermal efficiency of the Microsteam, the total fuel to electricity conversion is over 78%.

When boilers burn natural gas to generate steam, the process produces 0.40 lbs CO_2/kWh. Using this steam to generate power in the Microsteam Turbine, the overall emissions are **0.51 lbs CO_2/kWh**.

The U.S. Department of Energy estimates the average amount of CO_2 released by power generation from fossil fuel sources in the U.S. to be nearly **1.914 lbs CO_2/kWh**. The Microsteam is able to produce up to 275kW and run 24 hours a day, 365 days a year. In this scenario running from a natural gas boiler, one Microsteam® saves **3,214,000** lbs of CO_2 in a single year! That's equivalent to taking nearly 300 cars off the road.

In addition to offsetting electricity costs by producing power, the Microsteam Turbine reduces your facility's carbon footprint.