



Pollution Prevention for Breweries

The simple definition of pollution prevention is: *Reducing waste at the source instead of managing the waste after it is generated.* Breweries have many opportunities to reduce energy use, conserve water and minimize waste. The following information is designed to help you develop pollution prevention strategies that can bring financial benefits and lessen your impact on the planet.

Start with Baseline Measurements: Take a look at your utility bills; they offer information that will help you track energy and water use.

- **Energy:** Look for patterns of excess usage – try to avoid costly “demand charges”.
- **Water:** Conservation is not only a benefit to the environment, but can offer financial savings because both water and wastewater costs are based on the amount of incoming water purchased from the utility.
- **Waste:** Look at what you throw away. Often a simple waste analysis (a.k.a. dumpster dive) can help to reduce certain waste streams.



Take Steps Toward Reductions: Set some goals and look at low cost solutions to get started. Get all staff engaged; brainstorming ideas as a group often results in some great ideas.



Energy

TOP 10 BREWERY RELATED ENERGY BEST PRACTICES

- (1) Turn off equipment when not in use
- (2) Engage employees on how to conserve and use energy more efficiently
- (3) Replace air filters on air handlers, HVAC units etc. on regular intervals
- (4) Identify and repair compressed air, steam and water leaks
- (5) Repair or replace damaged or missing insulation
- (6) Eliminate the use of compressed air for cleaning, cooling or other applications
- (7) Review all temperature set points for heating and cooling on a regular basis
- (8) Upgrade incandescent, T-12 Fluorescent to more efficient lighting types
- (9) Collect steam condensate
- (10) Purchase and install energy efficient equipment

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- Source: *The Brewers Association "Energy Usage, GHG Reduction, Efficiency and Load Management Manual"*



Water

OPPORTUNITIES FOR WATER CONSERVATION

- Install low flow fixtures in areas where appropriate
- Use low flow/high pressure sprayer nozzles for cleaning
- Consider reusing bottle rinse water for floor cleaning
- Implement a leak detection program



Waste

OPPORTUNITIES FOR WASTE REDUCTION

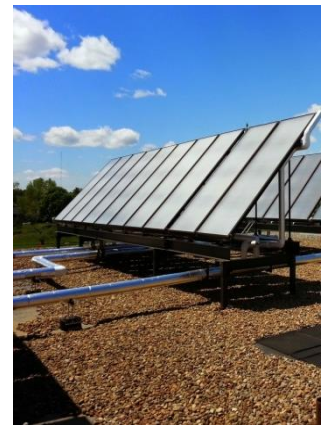
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Alternative Energy Sources: In addition to energy efficiency, water conservation and waste reductions, the use of alternative energy is another pollution prevention (and cost saving) strategy. With incentives from your utility and the State, and tax rebates from the federal government, solar hot water and electric systems can be affordable solutions to high energy costs. Many breweries have incorporated solar power to reduce fossil fuel consumption and invest in a clean energy source.



Alternative Energy

- Contact a reputable solar installation company to investigate options
- Consider the location – own or lease?
- Talk with your utility company to find out about available incentives
- Look into grants available from [USDA Rural Energy for America Program](#)
- Check out this [PVWatts calculator](#); it estimates costs and energy production



Craft and micro-breweries are a growing industry in New Hampshire. It's important that with that growth there is a sense of environmental stewardship to help keep our state a desirable destination. It's good for the environment and good for business.



The New Hampshire Pollution Prevention Program is available to help with waste reductions strategies. Please feel free to contact us at 603-271-6460 or email nhppp@des.nh.gov.