DOCKETED

Docket Number:	15-WATER-01
Project Title:	Water Energy Technology (WET) Program
TN #:	205048
Document Title:	Galen N OToole Comments: Pressurized Air Pre-Wash for Commercial Dishwashing
Description:	N/A
Filer:	System
Organization:	Galen N OToole
Submitter Role:	Public
Submission Date:	6/16/2015 3:15:15 PM
Docketed Date:	6/16/2015

Comment Received From: Galen N OToole
Submitted On: 6/16/2015
Docket Number: 15-WATER-01

Pressurized Air Pre-Wash for Commercial Dishwashing

Additional submitted attachment is included below.

Galen O'Toole
Humboldt State University
June 16, 2015

Saving Water and Heating Energy in Restaurants and Institutional Food Service

Dear California Energy Commission & WET Program Coordinators,

There is a simple, yet innovative technology which reduces the water usage of restaurants by as much as 33%. Dishwashing stations in food service establishments have a high-pressure spray wand to pre-wash dishes and cookware before placement in the dishwasher. Food scraps are washed down the drain, along with an enormous amount of hot water. A spray wand using compressed air has been developed to pre-wash the dishes efffectively with a small fraction of the water and energy used under existing practices.

The group developing this technology has a patent pending, a working prototype, a manufacturing company, and plans to begin production as early as July, 2015. The innovator is Chef John Cox, of Sierra Mar Restaurant in Big Sur, CA. In order to spread this technology quickly to many restaurants and institutions, I propose that the WET Program develop a rebate for those entities adopting this technology. The value of the rebate could be determined by the value of the water and energy saved.

The benefits of air pre-washing are numerous. Water usage can reduced by up to one third of the total usage for restaurants. Natural gas used to heat water will be significantly reduced. Food scraps that were entering the wastewater stream can be re-directed to composting systems. This saves energy at wastewater treatment plants and promotes on-site waste separation—a major hurdle for many proposed composting plans. Composting significantly reduces greenhouse gas production by diverting organic waste from landfills and recycling the nutrients for farm application.

This air pre-washing technology has the potential to save billions of gallons of water each year. The energy associated with heating that water is substantial. It would be helpful to conduct a water and energy analysis of the potential savings in this technology. The Environmental Systems Engineering program at Humboldt State University (HSU) is prepared to analyze the savings and run a test program with HSU dining services.

Thank you for your consideration,

Galen O'Toole