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The intern researched installation of a water heater to aid in Unilever’s company-wide effort to reduce carbon dioxide emissions by 25%, reduce water consumption, and save money. Feasibility of either a point-of-use water heater (tankless) or a solar water heater was determined through calculations from electric bills, water bills, and environmental data compiled through 2007.

The following table displays the potential savings if a new water heating system is implemented.

	Current	After New Heater
Energy for Heated Water (KWh)	420,703.69	140,234.56
Electricity Cost for heating Water	\$22,718.00	\$7,572.67
Total Cost of Hot Water	\$33,084.20	\$11,028.07
Kgs of CO2 Used	376,175.40	125,392.10
Savings		
Kgs of CO2 Saved	Gals Water Saved	Min Cost Savings
250,783.30	1,351,600.00	\$22,056.13

These values were determined through the following assumptions: Installation of a new heater will reduce water usage to a one-third of its current level, eighty percent of generated hot water goes to cleaning, and electric and water prices per unit are static.

Supplementing the water heater feasibility study was a geo-exchange heat pump feasibility study performed to reduce air conditioning costs for the front office, blending rooms, and a lab; however, this project was not completed, and needs further research.