Title: Turbocharging Energy Efficiency & CO2 reduction

Company/Organization: Velcro Companies

Type of Organization: For profit

Number of Employees: >100

Category: Environment

Challenge or Opportunity: Velcro Companies realized the gas turbine used to power and generate heat for our facility in Manchester was inefficient.

Approach or Solution: We partnered with a local university to assess and evaluate how we could improve our efficiency on our gas turbine and boilers. We replaced our feedwater economizer on our waste heat boiler to reduce steam boiler fuel requirements by transferring heat from the flue gas to incoming feedwater. We also made some programing and component changes on the gas turbine that improved operational efficiencies at times where we had low load.

Impact: These initiatives helped us to reduce the amount gas used in our boilers. When energy demand is low, we were able to reduce boiler use. This resulted in a 7% reduction on gas consumption at our Manchester campus compared to the average of the last 3 years.

Based upon the EPA's Greenhouse Gas calculator we are projecting a reduction of 1,352 ton of CO2 emissions. This is the equivalent of taking 294 cars off the roads of NH each year.