

Measuring Greenhouse Gas Emissions From Abington Township Municipal Buildings

Executive Summary

We partnered with Cakky Evans and Mark Connolly of the Abington Environmental Advisory Council (EAC) to contribute to Abington Township's climate action initiative. Our work consisted of two strategies. In the first strategy, we focused on importing energy use data for municipal buildings into Energy Star Portfolio Manager and analyzing it there. Portfolio Manager is a benchmarking program that compares each facility with similar ones across the country in order to gauge its energy efficiency.

Our process began with gathering data from My PECO, a database set up by the Township's electricity and natural gas utility, PECO. We matched up one or more electric or gas meters from My PECO with each facility designated in Portfolio Manager and uploaded the data in organized spreadsheets for each individual meter. Abington EAC and PECO are still developing the workflow by which the utility's customers can upload and analyze their data in Portfolio Manager, so our work has helped to identify remaining issues with the process. We spent time learning how to navigate My PECO and troubleshooting its problems with our supervisors, and we are hopeful that our write-up will help other townships successfully complete this process in the future. This work will ultimately help the Township achieve its goal of identifying and implementing energy efficiency measures that will reduce the carbon footprint of municipal buildings.

However, because of the issues we encountered with this strategy, our field supervisors made the decision to have us shift focus and pursue our second strategy: creating a greenhouse gas inventory for Abington Township municipal buildings.

We took the energy data that we downloaded from My PECO and imported it into a data inventory spreadsheet. The template for this spreadsheet was based on the work of Will Williams, Sustainability Director for West Chester Borough, and provided us a way to see all of our data in one place. After we entered all of the data, we used conversion factors from the Environmental Protection Agency and the Energy Information Administration to determine the greenhouse gas emissions, in CO₂ equivalent, of each facility. The facility with the greatest emissions was the wastewater treatment plant, contributing sixty-two percent of greenhouse emissions from Abington's municipal non-commercial buildings. Based on our data, the Township can decide which facilities to prioritize in the ongoing effort to curb Abington's environmental impact. We encourage the Township to make decisions based on greenhouse gas emissions rather than cost, and hope that our project and Abington's work will inspire other municipalities to begin their own fights against climate change.