

## Project Overview

**P3/NIAC Intern:** Eric Poggemeyer  
**Major:** Mechanical Engineering  
**School:** University of Nebraska-Lincoln



### Company Background:

Throughout the summer I participated in both IAC and P3 assessments and being stationed at a company (Cedar Hollow) through the summer. During my time working for the IAC, I participated in two different assessments, one of which I was the lead student. When I was not working with the IAC, I was stationed at a local facility where I worked on measuring their waste specifically when it came to wastewater. Cedar Hollow Foods is a small industrial facility specializing in the production of hams and ham-related products from Lincoln, Nebraska. The plant has 50 employees that process approximately 30,000 pounds of ham a day. With all these hams Cedar Hollow strives to deliver the highest quality to its customers.

### Project Description:

Throughout the summer of 2023, Eric Poggemeyer, an intern from the P3 program of UNL, worked on several pollution prevention projects for the company. Some of the goals of the summer projects were to increase sustainability by reducing water use, natural gas use, and energy consumption on-site.

### Pollution Prevention Benefits:

Several pollution prevention suggestions were made that could reduce the electricity usage, water usage, and natural gas usage in the plant, primarily on the production side. Some of these recommendations have little investment but have large savings. In the recommendations switching to more efficient options will result in the reduction of these measures. Some of the recommendations may have a high upfront cost.

### Results

The estimated savings and pollution prevention benefits can be found in Table 1 below.

**Table 1:** Summary of Pollution Prevention Benefits of the Project

P2/E2 Category	Annual Cost Savings	Waste Eliminated	GHG Reduced (MTCO <sub>2e</sub> )
Installing Water Chiller	\$5,432	1,109,311 Gallons/year	6.57
Installing Flow Restrictors on Cleaning Equipment	\$3,465	1,790,100 Gallons/year 9,119 therms/year	59
Upgrading Facility Lighting	\$1,540	16,954 kWh/year	16.36
IAC Assessments	\$712,018	1,663,346 kWh 4,500,000 ft <sup>3</sup> Nitrogen Gas	1,588
<b>Total</b>	<b>\$734,027</b>	-	<b>1,670</b>