

## Project Overview

**Intern:** Abdulkhalim Abdullodzhanov  
**Major:** Mechanical Engineering  
**School:** University of Nebraska – Lincoln

### Summer Duties

The Nebraska Industrial Assessment Center (NIAC) conducts facility assessments for manufacturers, production facilities, and other companies. These companies are in or close to Nebraska. During these assessments, members of the NIAC use equipment to collect data for further research, feasibility, and final recommendations. The NIAC analyzes simple systems like compressed air leaks as well as complex subjects like HVAC units. After the visit, members work with each other, vendors, and faculty advisors to create a polished report. A formal report is submitted 60 days after the initial on-site assessment with the recommendations.



### Summer Recommendations

Over the course of the summer, I performed 5 assessments. These companies included Tasty Toppings, Norfolk WWTP, Curries ASSA ABLOY, Noah’s Ark and Nebraska Nitrogen. A summary of the savings for the entire summer is included below in Table 1.

**Table 1:** Summer Assessment Recommendation Summary

AR	Cost Savings	Electricity Savings	Water Savings	Natural Gas Savings
Use Tanks for Soup Storage	\$49,000	-	-	-
Automate the Production Process	\$40,000	-	-	-
Reduce Air Leaks	\$431	11,886 kWh	-	-
Reuse Effluent Water	\$17,007	15,705 kWh	9,369,805 gallons	-
Reuse Generated Biogas	\$24,458	-	-	4,731 MMBTU
Insulate Exposed Steam Piping	\$394	-	-	78 MMBTU
<b>Total</b>	<b>\$131,289</b>	<b>27,591 kWh</b>	<b>9,369,805 gallons</b>	<b>4,809 MMBTU</b>