

## Project Overview

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**Industrial  
Assessment  
Center**  
 U.S. DEPARTMENT OF ENERGY



### Industrial Assessments

- ASSA ABLOY – Curries; Commercial Doors
- Becton Dickinson; Medical Devices
- Vishay-Dale Electronics; Electronics
- Noah’s Ark – WR Reserve; Beef Processing

As an intern for the Nebraska Industrial Assessment Center, I attended four assessments which are listed above. The facilities were located in Columbus, NE, Holdrege, NE, Mason City, IA, and Hastings, NE. I was the lead on the ASSA ABLOY-Curries assessment. During our visits to these locations, the team and I performed energy and waste assessments of the facility using various testing and monitoring equipment. The goal was to identify how they were using their utilities and find ways to minimize their usage with electricity, natural gas, water, and other energy sources. Below is a summary of the recommendations I worked on and their estimated savings and impacts. I also spent some time making cold calls to potential clients in an effort to line up additional assessments.

**Table 1:** Summary of Assessment Recommendations (Summer 2022)

<b>Recommendation</b>	<b>Resource Savings (per year)</b>	<b>Annual Cost Savings (\$/year)</b>	<b>Implementation Cost</b>	<b>Payback Period</b>	<b>GHG Reduction (MTCO<sub>2e</sub>)</b>
Replace AC Units in Testing Room	294,336 kWh 403 kW	\$19,306	\$130,000	6.7 years	465
Add Dampers & BMS to Testing Room	336,960 kWh 936 kW	\$28,885	\$27,000	0.9 years	321
Replace V-Belts with Cogged Belts	11,138 kWh 15.3kW	\$792	\$3,120	3.9 years	7.9
Replace Compressed Air Nozzles with Blower Cabinet for Drying	443,153 kWh	\$21,896	\$30,410	1.4 years	314
Test Fire Safety Pump During Off-Peak Hours	1,118 kW	\$26,148	\$30	<0.1 years	-
Air Compressor Heat Recovery for Use in Cafeteria	5,621 therms	\$4,047	\$8,000	2.0 years	29.7
Install Capacitor Bank to Improve Power Factor**	-	-	-	-	-
<b>Total</b>	<b>1,085,087 kWh 2,472.3 kW 5,621 therms</b>	<b>\$101,074</b>	<b>\$198,560</b>	<b>Avg. 2.5 years</b>	<b>1,137.6</b>

\*\*Through further research, it was discovered that this facility does not pay fees for poor power factor, so the AR did not formally materialize. I performed only the research portion of this AR and did not formally write up anything.