

Project Overview

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Company Background

McCain Foods is a private multinational company established in 1957 in Florenceville, New Brunswick, Canada. McCain Foods does frozen food production and mainly does appetizers. The McCain Foods Grand Island, NE location produces a variety of products such as French toast sticks, corn nuggets, fried pickles, jalapenos poppers but specializes in onion rings. Roughly 70% of the world's onion rings are made here.

Project Description

The maintenance department at McCain sought assistance in 2022 with their systems and processes. Alternate more energy efficient methods for the cooling of electrical cabinets was investigated. Ways to monitor more closely the water flow to the wastewater treatment facility was also investigated. Finally, converting the hydraulic motors to electric motors on the lines was investigated.

Pollution Prevention Benefits

The resulting pollution prevention benefits mainly entail reducing the amount of electricity usage and electricity demand. In the recommendations by switching to more efficient options will result in the reduction of electricity usage and demand. The recommendations have high upfront costs, but the benefits will be seen immediately.

Results

The pollution prevention benefits and results are summarized in **Table 1** below:

Table 1: Pollution Prevention Benefits and Results

Project	Electricity Usage Savings (kWh)	Electricity Demand Saved (kW)	Cost Savings	GHG Reduced (MTCO _{2e})	P2 benefits
Electric Conversion	2,545,900	305	\$131,200	2763.9	
Cabinet Cooling	118,100	13.5	\$6,080	125.2	126 cfm compressed air
Water Outflow	N/A	N/A	\$120,000	275	25,000 gal reduced
Total	2,664,000	318.5	\$257,280	3164.1	