



Company	Frito-Lay
Location	Guatemala
Sector	Food Processing
Type of Facility	Industrial
Annual Energy Savings	323,400 kWh

# KVAR EC® Installation

## Client Overview

Frito-Lay, a wholly owned subsidiary of PepsiCo, is a leading snack food company. It has a footprint of more than 100 plants, close to 50,000 employees and revenues of \$30 billion. All plants are equipped with heavy machinery and electrical loads and therefore energy saving is an area of focus within the company. In line with this, Frito-Lay has deployed "Green Teams" at each plant to help achieve its sustainability goals.

## Challenge

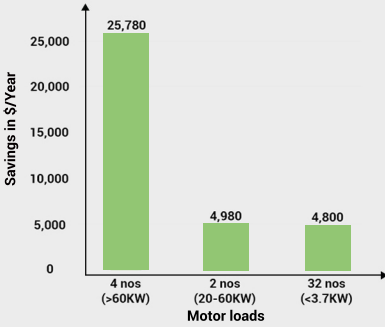
- > Different types of load applications like pumps, air compressors, chillers, injectors and extractors with power ratings ranging from 2 HP to 100 HP
- > This meant that the solution had to be customized for each load
- > Savings had to be proven conclusively as per the process prescribed in International Performance Measurement and Verification Protocol (IPMVP)
- > The entire project completion was under a strict timeline, which also included proof of concept stage

## Solution

- ✓ KVAR's team of expert engineers surveyed Frito Lay's facility to better understand the electrical infrastructure at site
- ✓ All motors were sized using KVAR's patented sizing equipment and method
- ✓ Phase 1 included a pilot installation on a motor followed by Measurement & Verification (M&V) for a period of 1 month
- ✓ During Phase 2, KVAR EC® units were installed on 38 motors, completing the entire project within 6 months

## Results

The M&V results, using both recorded and empirical data, showed substantial savings with a payback period <20 months convincing the client that the upfront costs were in line with company policies. KVAR EC® installations proved to be a sustainable and profitable solution in the long run with annual savings of 323,400 kWh.



**Consolidated Savings** 6.7%

**Annual Savings** \$35,600

**ROI** \$60,000 ÷ \$35,600 = 20 Months

Investment                      Annual Savings

*"The installed equipment has given excellent performance till date with over 7% saving in electricity consumption. Based on an initial investment of about \$60,000, we are looking at a payback of no more than 20 months."*

- Christian Delgado,  
Supervisor, Electrical Division