CASE STUDY

Paramount Farms

San Joaquin Valley, CA

Large agricultural processing plant reduces carbon footprint by optimizing air flow

Founded in 1980, Paramount Farms is the largest pistachio processing facility in the United States. The management team is continually optimizing to meet sustainability goals and to build a cleaner future. One such improvement involved optimizing the air flow within the dryers which allowed the production team to increase product throughput.

The challenge

Traditional methods involving measurement before and after were not an option for Paramount Farms because the equipment is only used 8-10 weeks out of the year and metal work cannot take place around the live process as it is a food safety hazard. Comparing year to year data was also not an option as the crop characteristics are highly dependent on weather conditions as well as where the pistachio is coming from. In order to accurately measure the impact of any change to the dryers, Paramount Farms would need a tool that measured both energy and pistachio production, in real time, in both the unchanged and modified dryers - concurrently.

Final Impact

- Annual Electricity Savings: > 500,000 kWh
- Annual Natural Gas Savings: > 1.4 Million Therm
- Annual Utility Cost Savings: > $600,000
- Carbon Footprint Savings: >9,000 tons of CO2 emissions avoided annually

CANTECH INDUSTRIES

The Solution

To address this need CanTech Industries installed their proprietary **Intensity Monitor**™ tool that could evaluate the Natural Gas / Electricity consumption of the dryers on a "per 1000 lb. of pistachio" basis. This way, any change in production that resulted from a change to the dryers could be factored in to a subsequent study of the overall efficiency of the modification. The **Intensity Monitor** data was then referenced throughout the design process to ensure the impact / design changes were significant enough to justify the redesign. The comprehensive analysis of the **Intensity Monitor** data was instrumental in the justification of over $500,000 worth of incentive through the Energy Efficiency Programs available in California, and it also triggered action within Paramount Farms and their parent company Roll Global, to explore other energy saving opportunities using Intensity Monitor as their primary means of savings verification and tracking.

Looking to the Future

During the 2014 Harvest, Paramount Farms investigated multiple design options; each with their own investment, maintenance and energy efficiency characteristics. Then, after weighing cost estimates, analyzing maintenance logs, and utilizing the results from **Intensity Monitor** – Paramount Farms was able to determine the most impactful changes for the 2015 Harvest.

In addition to adding energy management and cost savings, Paramount Farms' participation in energy reduction and efficiency using Intensity Monitor provided many additional benefits for the community. It reduced their carbon footprint; it helped prevent rolling blackouts, and it decreased the need for new power generation.

For more information,
Call (760) 975-3786 or visit
www.intensitymonitor.com