

Solar-Powered Snackmaker Adds More Sun to Mix

Energy-efficiency and sustainability have long been on Frito-Lay's front burner, and that appears to be where they'll stay.*

PepsiCo's Frito-Lay North America plant in Modesto, CA, has strengthened its solar-based sustainability efforts with the installation of an innovative cylindrical solar photovoltaic (PV) system on the facility's rooftop. The project consists of some 5600 panels that cover 247,000 square feet. The system's installed capacity of one megawatt will reduce the site's electricity use from outside sources at peak production by 25%, based on its year-ago electricity consumption rate. It also is expected to reduce CO2 emissions by 1000 metric tons per year.

Overseen by solar-system designer/manufacturer Solyndra, the project took eight weeks. According to this California-based company, the new lightweight, modular, thin-film non-penetrating system delivers the lowest-cost electricity possible for typical low-slope rooftops.

This particular system is the second solar project at the Modesto plant—which makes a number of snack products, including more than 145,000 bags per day of the company's multigrain SunChips

. In 2008, the

facility installed a five-acre solar concentrator field made up of 54,000 square feet of concave mirrors. The energy captured by the system's 384 solar collectors generates steam that helps heat the cooking oil for the SunChips manufacturing process.

The Green Edge

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Energy-efficient, sustainable initiatives are nothing new at the Modesto site. Since 2000, its resource conservation program has reduced the facility's use of electricity by 19%, its natural gas consumption by 30% and its water usage by 44% per pound of manufactured product.

Other recent sustainable efforts at Frito-Lay include switching to a 100% compostable bag for SunChips. Since March of this year, these bags have been made of a plant-based material that fully biodegrades within 14 weeks when left in a hot, active compost bin. The Modesto plant also has achieved LEED® Existing Buildings Gold certification from the U.S. Green Building Council (USGBC) and is verified by the Green Building Certification Institute (GBCI).

*To learn more about steps Frito-Lay is taking to a healthier planet, go to: www.fritolay.com/our-planet/steps-to-a-healthier-planet.html

New NEMA-Approved, Premium Efficiency Transformers

Schneider's Square D Premium 30 Energy Efficient Transformers are designed to help reduce lost energy and exceed minimum efficiency-program standards while delivering high performance and quality. These new low-voltage products comply with the National Electrical Manufacturers Association's (NEMA's) recently introduced Premium Efficiency Transformer Program that calls for 30% fewer losses than existing Department of Energy (DOE) regulations and encourages utilities, commercial buildings and industrial plants to incorporate high-efficiency electrical transformers into their operations. The line includes distribution transformers, non-linear transformers and harmonic-mitigating transformers that can reduce power consumption regardless of the loading profile.

Schneider Electric Palatine, IL

For more info, enter 31 at www.MT-Freeinfo.com
Advanced Electronic Boiler Control

Spirax Sarco has introduced a line of Electronic Steam Boiler Controllers that incorporate infrared, "inter-controller" communication capabilities and remote RS485 "read-only" access to settings and parameters. A unique enclosure design allows chassis, panel or DIN rail mounting. Commissioning can be carried out using only the front panel keypad and user-friendly software menu. The new controllers' LC3050/LP30 low-level alarm system has been approved for SIL2 and SIL3 applications.

Spirax Sarco, Inc. Blythewood, SC

For more info, enter 32 at www.MT-Freeinfo.com Wind-Turbine Lube System

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The Timken® Wind Energy Lubrication System supplies wind-turbine main shaft bearings with continuous lubrication via a single pump working with either a series-progressive or injector-based form delivery. The HP (series-progressive)system uses a conventional method for the pressure-purging of old grease. The LP (injector-based) system has an active-purge system to remove old grease without internal bearing-cavity pressure. Both systems deliver up to NLGI No. 2 grease. Both feature an 8-liter standard grease reservoir for one-time yearly maintenance, with stirring paddle and wiper to minimize air pockets and grease separation.

The Timken Co.

Canton, OH

For more info, enter 33 at www.MT-Freeinfo.com