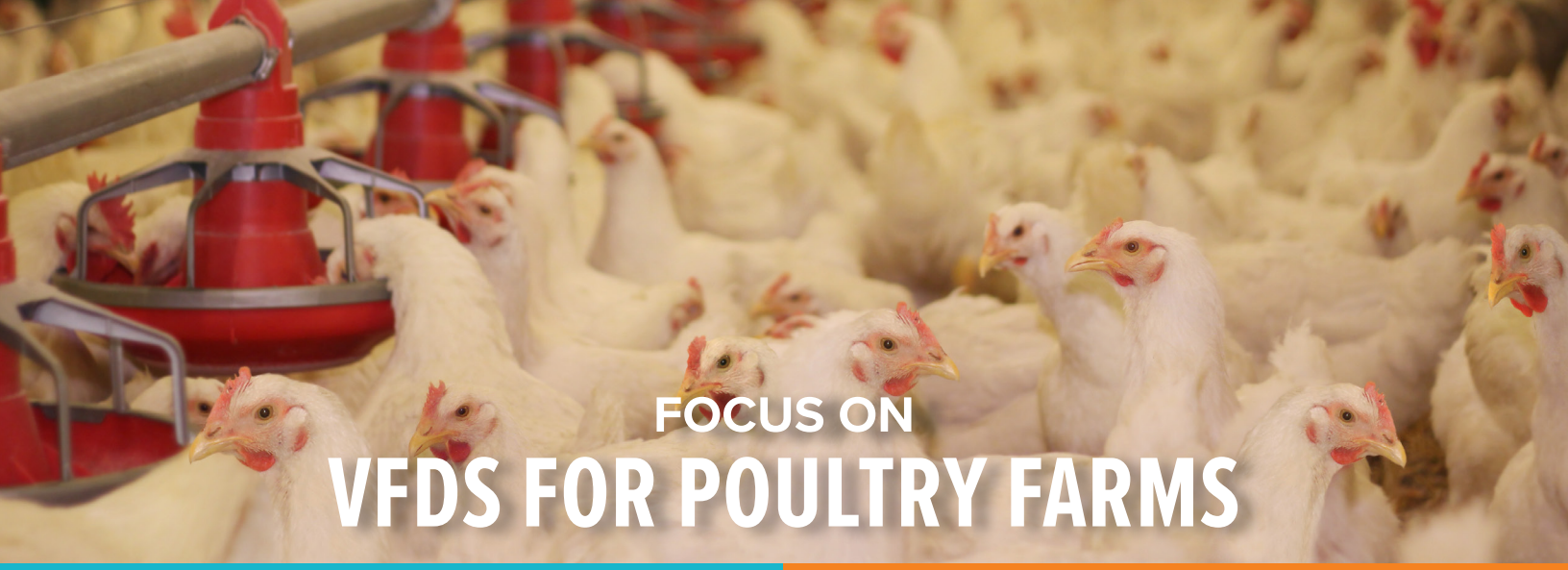

FOCUS ON
VFDS FOR POULTRY FARMS

The Background

S&R Egg Farm is a full-service egg-laying operation located in southeast Wisconsin. The company started with 12,000 chickens and has grown to an estimated four million birds spanning 1,000+ acres of farmland and distributing over 1.2 billion eggs across the country each year.

S&R Egg Farm purchased its Cold Spring operation in Palmyra, WI in 1994. After a series of extensive renovations and space additions, the site grew to 17 barns and increased capacity to 4.2 million birds by 2017. S&R Egg Farm's commitment to growing a modern, sustainable, and environmentally-friendly facility allows the company to produce quality products its customers can enjoy, such as cage-free eggs from the Cold Spring facility.

Project Breakdown:

- **Equipment Installed:**
  - 19 Constant Torque VFDs
  - 32 VFDs on High-Speed Ventilation/Circulation Fans
  - 4 VFDs on Process Fans
- **Estimated Project Cost:** $231,340
- **Annual Energy Cost Savings:** $218,474
- **Focus on Energy Incentive:** $22,335
- **Payback:** One Year

The Approach

FOCUS ON ENERGY® contacted S&R Egg Farm in 2017 which resulted in a a facility walkthrough of the Cold Spring site. During the walkthrough, Focus on Energy noticed the company had installed VFDs on many of the conveyor belts, but not all.

Conveyor belts are a crucial component for egg farms of all sizes. Belt systems are responsible for a number of activities, including capturing and transporting the eggs, removing dirt and broken eggshells, feed conveying, manure removal, and even assisting with packaging. The Cold Spring facility packages over 3.3 million eggs per day!

Focus on Energy recommended installing VFDs on the remaining conveyor systems because this solution provides multiple benefits. It reduces gear and belt wear through the smooth starting and stopping of the conveyors. VFDs will increase efficiency and control of the belt speed while cutting energy use by 30% - 40%.

The Solution

After installing VFDs on the remaining conveyor systems, S&R Egg Farm also decided to incorporate VFDs into its fan system. Using VFDS to regulate the amount of airflow and ventilation, S&R Egg Farm can manage the speed of its fans based on moisture levels and air temperature. S&R Egg Farm also utilizes its fans to dry the manure in its facility by recirculating the heat from the chickens directly onto the manure.

REDUCING ENERGY WASTE ACROSS WISCONSIN

Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources, and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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