

PREMIUM-EFFICIENCY ELECTRIC MOTORS PROGRAM CASE STUDY

New York State Energy Research and Development Authority

K.J. ELECTRIC AND NATIONAL PIPE & PLASTICS, INC.

K.J. Electric of Vestal, NY, a participating dealer in the New York Energy \$martSM Premium-Efficiency Motors Program and one of New York's largest motor dealers, has been working with National Pipe & Plastics, Inc. (National) to help them replace their 200-plus motors with premium-efficiency motors in their Binghamton plant. With assistance from the New York State Energy Research and Development Authority (NYSERDA), K.J. Electric was able to reduce National's operating costs and increase profits for the PVC pipe manufacturer. Through the Premium-Efficiency Motors Program, NYSERDA provides vendors like K.J. Electric with customized marketing materials, educational training and motor sales incentives.

K.J. Electric began by completing an inventory of National's existing motor base and then they performed an engineering study to identify opportunities for savings. Once the inefficient motors were identified, K.J. Electric metered the equipment to determine existing energy usage by these lower-efficiency motors. As each motor is replaced with a premium-efficiency motor, it is tested again with the same metering equipment to determine the actual energy savings. K.J. Electric acted as a strategic partner with National by providing inventory control and proactive stocking commitments that allow motors to be replaced promptly.

National is one of the largest producers of PVC pipe in North America with three manufacturing facilities in the United States. The plant in Binghamton, NY, employs 185 people and manufactures approximately 130 million pounds of PVC pipe annually. Due to the nature of their manufacturing process and the presence of so many electric motors, National has one of the highest electric-load factors in the Binghamton area.

NYSERDA's Smart Equipment Choices Program helped National offset the cost of this project by providing financial incentives for each qualified premium-efficiency motor and variable-speed drive installed. Replacing standard electric motors with premium-efficiency motors will help the company increase production and reduce electrical costs, allowing them to remain competitive in their industry.







After recently replacing seven motors and adding variable-speed drives, National has already earned nearly \$20,000 in annual energy savings, and a 138 percent increase in product output.

"Through NYSERDA's Premium-Efficiency Motors Program we are able to provide value-added services to National Pipe & Plastics, Inc.

With NYSERDA'S financial assistance in partnership with K.J. Electric's technical expertise, we are able to help our customers install more efficient equipment and cut costs."

Paul Dougher.

K.J. Electric, Binghamton