

# A COMMUNITY SAVES WATER AND ELECTRICITY WITH BALDOR DRIVES



When the city of Lavaca, AR, determined it needed to perform some maintenance work on its water tower, city water officials faced a real dilemma. Without a full water tank, the gravitational pressure would be lost, and the system would not be able to provide a constant water supply to its customers. It also meant the possibility of having to dump and waste clean water, something the city could not afford.

“With the system I had in place, I was going to have to drain the tank and potentially lose \$118,400 worth of water over the course of the project,” says Bobby Leonard, Lavaca water superintendent. “No community can afford to waste that kind of money, so we began to look for a better way to control the pump pressure and prevent the loss of water.”



Baldor’s VS1SP260-1B 60 HP adjustable speed drive was selected for a history of consistent performance and because it is simple to program and easy to operate.

*“Installing the drives allowed us to complete the water tank upgrade without losing one drop of water.”*

Bobby Leonard, water superintendent, City of Lavaca



Baldor drives provide the additional benefit of preventing single phasing of the motors during power brownouts, saving the town from costly motor repairs or replacements.

One call to Evans Enterprises, an area Baldor drives distributor, was all that was needed to find the solution. The company's sales manager, George Williams, says he knew immediately that installing Baldor's VSISP260-1B 60 HP adjustable speed drives would solve the city's problem. "This is a reliable, high-performance drive that's been field-tested and is ideally suited for pumping applications," says Williams. "These drives are easy to program, and once you set the parameters on the first drive, you can simply plug that information into additional units, speeding up the installation process."

Evans Enterprises also replaced an existing electromechanical valve with a pressure transducer, allowing the drives to control the motor speed, and in turn the water pressure. "Their old system was either fully open running at full speed, or it was off," says Williams. "By using the drives to respond to pressure, we discovered we could trim the full load amps down from 136A to 54A, a real cut in their energy usage."

"Installing the drives allowed us to complete the water tank upgrade without losing one drop of water," says Leonard. "I was focused on saving my water bill, not even thinking about how much we would save in energy. Prior to the drives installation, our average monthly power bill was \$1,039. Today our power bill has dropped to an average of \$650. Saving the water more than paid for the drives, so what we are saving now on our electricity bill is a huge bonus for us."

Another unexpected bonus is that the drives prevent single phasing of the motors during power brownouts. "During a winter ice storm, the drives tripped on phase loss twice to help protect our motors from being single phased," explains Leonard. "We didn't have any phase loss protection before, so again, these drives saved us from having costly motor repairs or replacements. This project has been a big success, and all of the savings we are realizing couldn't have come at a better time."