

# PowerSave System Cut Monthly ESP Electrical Consumption by 44 Percent

## CHALLENGE

Producer wanted to save OPEX by reducing monthly ESP power consumption.

## SOLUTION

Replace existing ESP with a PowerSave ESP system.

## RESULTS

- Maintained 2,500-bpd production rate
- Reduced monthly kilowatt usage from 103,440 to 57,440
- Lowered monthly power bill on the well from \$9,134.57 USD to \$5,525.06 USD

## Putting PowerSave ESPs to the Test

A producer in Oklahoma was looking at ways to cut OPEX. After learning that PowerSave ESP systems typically reduce monthly electricity consumption by 30% or more, they wanted to put the technology to the test. They had a well in the Ponca City Field in Kay County, Oklahoma that was nearing the end of its economic life. It was producing around 2,500 bpd (400 m<sup>3</sup>/d), but it was mostly water. Before abandoning the well, the producer asked Novomet to replace the electrical submersible pumping (ESP) system they had been using with a [PowerSave high-efficiency ESP](#).

## Conditions and Details

The producer stopped production on the well in November and scheduled the Novomet crew to install the new PowerSave system in mid-December. We pulled the old equipment and installed a 406 series PowerSave ESP in the target well. We set the ESP where the previous system had been installed at 3,839 ft (1170 m) total depth in 5.5-in. casing.



*High-efficiency PowerSave ESPs typically reduce electrical consumption by 30% or more.*

**Kay County, Oklahoma**

## Results

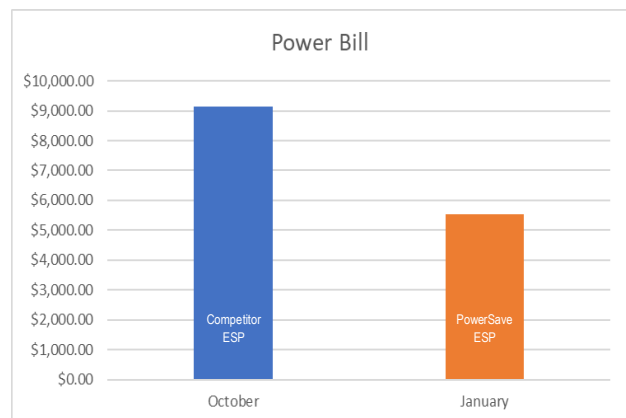
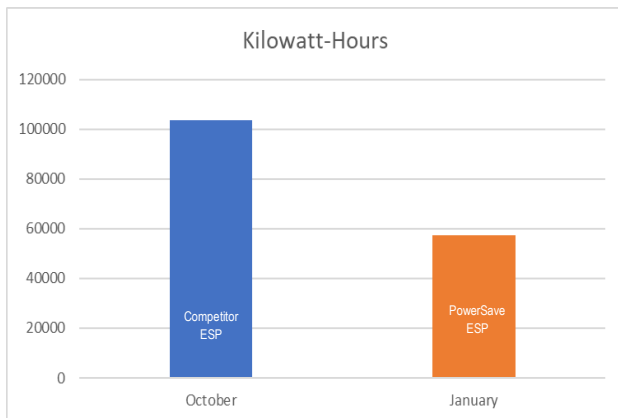
Production resumed after installation in mid-December at +/- 2,500 bpd. After January, the producer compared the last full month of production with the old ESP (October) with the first full month of production using the PowerSave high-efficiency ESP (January).

While production remained the same, ESP power use dropped from 103,440 kWh to 57,440 kWh, a reduction of 44.5%. The electrical bill dropped from \$9,134.57 USD to \$5,525.06 USD. Because there was a volume discount applied by the power company for higher usage rates, the percent change in kilowatt hours and bill amounts do not exactly align.

## About the Technology

The PowerSave ESP system combines proprietary pump-stage design, precision parts manufactured using powder metallurgy, and advanced permanent magnet motor (PMM) technology to lower ESP power consumption by 30% or more when compared to the next most efficient competing systems.

It is not unusual to see electricity savings of 50% or higher depending on the equipment being replaced. While reducing ESP electrical consumption is an effective way to lower OPEX, it has the added benefit of reducing carbon emissions. To learn more, visit [novometgroup.com/powersave](http://novometgroup.com/powersave).



*The last full month of operation for the existing ESP was October. The first full month of operation for the highly efficient PowerSave ESP system was in January. Comparing full-month operation for the systems shows a 44.5% reduction in power consumption.*