UNITY POINT METHODIST CASE STUDY



QUICK GLIMPSE	
Customer	Unity Point Methodist Hospital
Measures Implemented	Install Boiler Skimmer Blowdown Flash Tank
Total Project Cost	\$59,501.00
Estimated annual energy savings	61,320 Therms
Estimated annual cost savings	\$29,640.69
ActOnEnergy incentives received	\$29,750.50
Estimated Payback	1 year



Impact*



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or

8,336 Trees

36,584 Gallons

68.4 Cars

* Project impact calculated using the EPA Greenhouse Gas Equivalencies Calculator

BASELINE

Established in 1900, Unity Point Methodist is a 330-bed hospital founded by the Methodist Episcopal Church. The 1,014,000 square foot hospital is partially served by a boiler running at 80 percent efficiency. Energy could be recovered by preheating the boiler feed water. The current system was wasting 61,320 therms of natural gas a year.

OUR SOLUTION

Ruyle installed a properly engineered flash economizer tank to capture boiler skimmer blowdown. The flash tank economizer recovers heat and steam, which can then be recycled to be used as-is or used to heat new feedwater, thus saving fuel and money. It captures waste water from the boiler surface blowdown to increase make-up water temperature (sensible heat) and provide low pressure flash steam (latent heat) to the feedwater tank.

BENEFITS

Working with the Ameren Illinois ActOnEnergy program, UnityPoint Methodist was able to receive \$29,750.50 in incentives to help pay for a portion of the project cost. In addition, saving energy saves money. UnityPoint Methodist saved:

Existing Equipment

Total Therms per Hour: 153

<u>Estimated Annual Operating Hours:</u> 8,760

Estimated Annual Therms 1,340,280

Installed Equipment

Total Therms per Hour: 146
Estimated Annual Operating Hours: 8,760
Estimated Annual Therms 1,278,960

TOTAL THERMS SAVED 61,320 TOTAL ANNUAL SAVINGS \$29,640.69

