

# **Dominican University**

Natural Resource Savings through DRF's Resource Conservation Solutions Program

Location: River Forest, IL Facility Size: 30 acres



## PROJECT DESCRIPTION

Installation of custom designed condensating boiler system, commercial tankless domestic hot water system, and heat recovery system on existing chiller.



### PROJECT OVERVIEW

**Project Cost:** \$348,000

Rebate Amount: \$132,376 Payback Period: 2.5 years

**Annual Therm Savings:** 132,376

**Environmental Impact:** Equivalent to saving CO2

emissions from the energy use of 57 homes for one year.

**Projected 20-year Savings:** 2.65M therms = \$1,696,000



#### THE TEAM

Dan Bulow • Director of Buildings and Grounds, DU

John Ward • Chief Engineer, DU

**Dennis Fiddick • Solutions Engineer, DRF** 

Scott Schnurr • President, DRF

"This project was only possible because we found the right partners to work with."

-Dan Bulow



#### THE NEED

The goal of the project was to eliminate the need to operate a steam boiler during the cooling season. The dedicated summer boiler, operating 24/7, 365, was using massive amounts of gas for space heat and domestic hot water. The summer load included domestic hot water and A/C reheat for some original campus buildings. Shutting down the summer boiler would reduce utility costs.



#### THE SOLUTION

In partnership with Metropolitan Industries, DRF developed creative solutions that provided financial benefits and qualified for the Nicor Gas EEP Business Custom Incentive Program Rebate. Metropolitan was able to design/build equipment per DRF's specifications. DRF guaranteed annual savings of 100,000 therms with a payback period of 2.8 years to help DU move forward with the project. A multi-unit tankless hot water system addressed domestic hot water, while a chiller heat recovery system eliminated the entire reheat load from the library. A combination reheat and domestic hot water condensating boiler system addressed the resource load in Parmer Hall.



#### THE RESULT

The three high-efficiency equipment upgrades have allowed for shut off of the summer boiler during six non-space heating months of the year. The shut off will save 132,376 therms annually at a delivery cost of \$.64 per therm, for a total utility cost savings of \$84,720 annually and a payback period of 2.56 years. DU received a Nicor Gas EEP Rebate in the amount of \$132,376. The project installation was completed in 30 days and the guaranteed savings of 100,000 therms was surpassed by 32%. "We have been pleased with how much money we saved upfront and with the relatively quick payback period," explained Dan Bulow. "This is just another example of Dominican's commitment to sustainability," he said.









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