

Recommissioning: Grace Church

MOTIVATED BY ENVIRONMENTAL STEWARDSHIP AND FINANCIAL RESPONSIBILITY

Introduction

Beyond the congregation, Dan Kretsinger, director of facilities at Grace Church, felt it was important for his church to extend its responsibilities to include the environment. Therefore, when approached about recommissioning Dan felt it was time to improve the energy efficiency of the 343,000 square foot megachurch. "We just wanted to be better stewards of what the Lord has provided," said Dan.

Getting Everyone Onboard

To maintain operations churches rely heavily on member contributions, tithes and donations. In order to move forward with the Recommissioning project, Dan had to assure the financial committee that the costs associated with the energy efficiency improvements he was suggesting would be associated with responsible spending. Using resources provided by Xcel Energy, Dan was successful in getting approval to move forward with the project.

A Beacon of the Community

"Not only was this a good financial decision on behalf of our members and organization, but it was good for the local community as well," said Dan. "We're no longer a church sitting high on a hill wasting power." Since the recommissioning Grace Church is more than a spiritual leader, they now serve as an environmental leader in their community as well.

In Conclusion

In the case of Grace Church, being a steward of the environment was an important reason for the recommissioning. However, the residual benefits greatly added value to their mission. "After nearly cutting natural gas use in half and electric by 22% you could say it was a great win for us," Kretsinger exclaimed.



WHAT IS COMMISSIONING?

Commissioning is a systematic and documented process of ensuring that specific building systems perform interactively according to the design intent and the owner's operational needs. With today's buildings and systems becoming more complex, the need for commissioning continues to grow.

Recommissioning takes another look at a building that was previously commissioned to ensure it is once again, running at optimal performance.

Retrocommissioning involves tuning up an existing building that was never formally commissioned. Unless you requested commissioning, it's likely your building's systems were never properly calibrated for ongoing efficiency.

Xcel Energy's Recommissioning program covers both recommissioning and retrocommissioning.

PROJECT DETAILS:

Grace Church's Recommissioning study identified many opportunities to save energy including:

- Adjusting air handling unit (AHU) run hours to meet actual occupied times (*AHU runtime reduction*)
- Increasing the air temperature from AHUs as it gets colder and the need for cold air drops (supply temperature reset)
- Installing occupancy sensors on HVAC VAV units to reduce the duct static pressure and control the speed of the air-handlers
- Adjusting levels of outside air down to meet CO₂ requirements based on occupancy (*Demand control ventilation*)
- Lowering VAV air flow to match zone needs and reduce to minimum per unoccupied schedule

BY THE NUMBERS:

Total Energy Saved Annually: 806,311 kWh

Estimated Energy Savings Annually: \$107,778

Project Cost: \$182,050

Xcel Energy Study and Implementation: \$38,850

Payback timing: 1.48 years



XCEL ENERGY REBATES HELP OFFSET RECOMMISSIONING COSTS

Study Rebates: Xcel Energy helps pay for up-front Recommissioning study costs*—up to 75% of the study cost (not to exceed \$25,000).

Implementation Rebates: Xcel Energy provides rebates of \$400/kW or \$0.045/kWh and/or \$5/Dth for natural gas customers. You can even earn more if you implement within nine months after your study is approved.

*Participation in these rebate programs are subject to important terms, conditions and restrictions, including eligibility restrictions. To learn more, please visit xcelenergy.com/Recomm or contact your Xcel Energy account manager.

Make Your Own Case

Please visit xcelenergy.com/Recomm for program information and resources.

You may also contact your Xcel Energy account manager or one of our business energy efficiency specialists at **1-800-481-4700** or energyefficiency@xcelenergy.com to help with any of your energy efficiency needs.



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