

CATALYST CASE STUDY

NORTHSHORE CHRISTIAN CHURCH SEES 40% ELECTRICAL SAVINGS WITH INSTALLATION OF CATALYST & EIQ PLATFORM

Northshore Christian Church is a non-denominational church located in Everett, Wash. It provides many services weekly to the community and is home to Northshore Christian Academy, a school for children up to eighth grade.

THE CHALLENGE

Transformative Waves approached Northshore Christian Church about the **CATALYST** as part of an outreach effort to help local businesses take advantage of local utility (Snohomish PUD) incentives for energy efficiency projects.

THE PROJECT

The **CATALYST** was applied to 23 rooftop packaged units (RTUs). Prior to the **CATALYST** install the RTU fans ran continuously at 100% speed. In the **CATALYST** mode the Opti-Run Fan Control strategy was used to modulate the fan speed so it matched the needs of the space. This change in fan speed control has reduced the average required fan speed to 52% for the runtime. Since installation, 71% of cooling calls for Northshore Christian Church have been satisfied with outside air and 4% of equipment runtime utilizes advance cool ventilation pre-cooling. The inclusion of the **eiQ Platform** BMS control provides remote web-based adjustment of schedules and set points, live look in at unit performance, fault detection and diagnostics and historical performance and savings analysis.

SUMMARY

Implementing **CATALYST** control strategies has established a new energy profile that reduces electric and gas consumption. Reported savings include 79,000 kWh (70%) and 950 Therms (6%). The magnitude of savings are unique to the weather and occupancy experienced during this time frame and can be expected to fluctuate in response to differing weather conditions and changes in building operation.

POWERFUL RESULTS

Measured HVAC Energy Savings
79,000 kWh (40%)
950 Therms (6%)

Projected Annual Savings (TMY):
94 kWh/ton and 4.8 therms/ton per
1,000 hours of operations

