



# Our Lady of Guadalupe: Responding to the Catholic Call to Stewardship

Located in Seattle, Washington, Our Lady of Guadalupe Parish (OLG) is a Roman Catholic congregation founded in 1962 that serves as the center of faith for 750 families. Over time, OLG has transformed itself into an energy efficient organization with several green facilities. Their goal was simple: lower costs while improving sustainability. This was achieved both through investment in new buildings as well as upgrades to existing buildings. OLG also cut back on waste generation and committed to the practice of basic recycling principles throughout their parish. OLG has benchmarked their properties using ENERGY STAR® Portfolio Manager® and one of those properties has qualified for ENERGY STAR certification. In addition, OLG is also seeking Leadership in Energy and Environmental Design (LEED) certification for their properties.

## How OLG increased their Efficiency

Our Lady of Guadalupe's total campus includes four buildings totaling 66,168 square feet and is supported by a staff of 32 full- and part-time employees. The buildings include a church, a K-8 school, a gymnasium, and a pastoral center/administration building. The pastoral and administration building and the gymnasium are newly completed (2009 and 2012, respectively). These buildings were designed not only to meet congregational needs, but also to meet modern standards in environmental sustainability which includes the following features:

- The Pastoral and Administration building has a hydronic floor system that provides heat to the entire building via an ENERGY STAR certified condensing boiler. The building is passively cooled using stacked ventilation and extensive operable windows.
- The parish originally rented gym space, but thanks to the help of a successful capital campaign, a multi-use gymnasium was built in 2012 which includes a gym, kitchen, and theatrical stage. This building utilizes synchronized day-lighting controls, LED lighting, and green building materials like colored interior architectural panels made from 100% post-consumer recycled paper bound together within a resin system. In addition, two rain gardens collect water from the roof and channel the excess water into an underground storm water surge tank. ENERGY STAR certified washing machines and convection ovens were also installed.

**The Challenge:** To lower costs in the OLG congregation while improving sustainability.

**The Solution:** By tracking energy and water through EPA's ENERGY STAR® Portfolio Manager®, OLG pinpointed areas to focus on for increased efficiency.



Our Lady of Guadalupe's New Gymnasium



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Upgrades to OLG's school yielded a score of 96 in ENERGY STAR Portfolio Manager (on a scale of 1 – 100). This high score is the culmination of upgrades to this building funded in part by incentive programs offered by Seattle City Light and Puget Sound Energy.

In 2010, the OLG School had its interior and exterior lighting system upgraded and replaced with energy efficient bulbs and ballasts. The following year, the school's 49-year-old boiler was replaced with a new condensing boiler and the school's gas bills dropped dramatically; the boiler is rated by the Air Conditioning, Heating &

Refrigeration Institute (AHRI) to have 92% thermal efficiency. Before the boiler replacement, gas bills for the school averaged around \$14,000 per year. After the boiler replacement, that figure dropped significantly: for 2012, the gas bill for the school was 55% lower, and comparing averages from 2009 – 2011 to 2012 – 2013, OLG's school had a total gas savings of 48%.

In 2014, OLG replaced 136 90 watt incandescent bulbs in their church with ENERGY STAR certified LEDs. This lighting upgrade translated into a 60% reduction in energy use, many hours saved replacing bulbs each month, and a savings of about \$1,000 per month in the dark winter months. Further, a program of Seattle City Light paid \$26 for each of the \$38 cost of a bulb.

On top of these improvements in Parish infrastructure, the congregation has installed two solar arrays with the assistance of a grant from the Bonneville Power Foundation. The grant also supported a classroom curriculum package and an interactive informational kiosk to help educate students and congregants understand the solar array. The kiosk provides information on the daily, weekly and year-to-date solar energy gains, as well as providing weather monitor data and general information on the benefits of clean and renewable energy.

Our Lady of Guadalupe, in response to their Catholic Call to be Stewards of the earth, implemented a set of sustainability policies to lessen the impact of waste (especially plastic waste) on the environment. These policies apply to any group using parish and school facilities. OLG also utilized a city grant to create an award-winning "Green Initiative" that assists schools in practicing these sustainability policies, whose focus is on the reduction, reuse, and recycling of waste products. The Parish practices these concepts in order to improve energy efficiency and minimize costs. In order to reduce, the parish has adopted a "plastic free" policy that eliminates the use of plastic water bottles, soda containers, and miscellaneous plastics wherever possible. To ensure that plastics are phased out, the congregation invested in glass plates, metal silverware, and other glassware that can be reused so that no excess waste is generated. When use of the above is not an option, recycled materials are strictly required.



The Sanctuary at Our Lady of Guadalupe



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## Quotes and Reflections

“We were very surprised at how smoothly the projects went not only with the installation of the equipment but also with the paperwork of the Seattle-based utilities, had we realized this before we most likely would have done it all earlier. The best advice I would give someone is to thoroughly research energy saving programs offered by their local utilities—it’s a win-win.” - Frank Handler, Parish Administrator, Our Lady of Guadalupe Parish.

“Our K-8 school has saved thousands of dollars in energy costs which can now be budgeted towards instructional resources. We are so grateful to be not only helping the environment but to also be helping our teachers and students at the same time.” - Donna Ramos, Principal, Our Lady of Guadalupe School.

“As a former marine biologist, I’m thrilled at being able to help lessen carbon emissions into the atmosphere and thereby, in our own small way, help to lessen ocean acidification and its damage to coral reefs. I hope we made St. Francis proud!” - Frank Handler, Parish Administrator, Our Lady of Guadalupe Parish.