

| CASE STUDY |

Ohio Vacation Community Makes Efficiency Upgrade

Heating water all day is the old fashioned way of doing things. Today, homeowners, businesses and governments are requiring that buildings become more efficient and eco-friendly. When the town council of Put-In-Bay, Ohio, wanted to save money, they found that updating the way water is heated in the city's bathhouses was one way of accomplishing this goal.

Put-In-Bay is a vacation community located on an island in Lake Erie. The island is a historically rich, early American settlement known for playing a major role in the War of 1812. Put-In-Bay is graced by ferry boats filled with visitors and with vacationers sailing their boats to the island located two miles off the coast of Port Clinton, Ohio. Visitors dock their boats and come onto the island to enjoy the fine restaurants. They use the community bathhouses to get cleaned up.

At the heart of Put-In-Bay Village is the 21-shower bathhouse the community elders originally constructed over 100 years ago to help visitors clean up before going to dinner. While the showers are a great resource for visitors, maintaining and heating the water for them was costing the village a lot of money. Then the village discovered how Navien condensing tankless water heaters could save money on water heating and free up



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valuable space in the mechanical room of the bathhouse.

Navien condensing water heaters have one of the highest gas efficiency ratings on the market, with up to a 0.96 rating. Navien achieves this rating through the use of two stainless heat exchangers, which are used in combination to preheat the water before it moves to the primary heat exchanger to be heated to the right temperature for the end user. Navien uses condensing technology in the preheating of the water in the first heat exchanger and drips away any excess heat so the remaining exhaust heat can be vented out through schedule 40 PVC.

The village of Put-In-Bay installed four Navien NP-240-LP units to replace the two 200-gallon, oil-fired water heaters. Navien units can use a common vent for the exhaust, so the project was able to use the existing vents in the roof and cut down on installation time.

By replacing the oil-fired water heaters and the 10,000-gallon holding tank, the village was able to save over \$35,000 in heating expenses. To make the transition, the village had to install a new holding tank for the liquid propane.

The four new Navien NP-240-LP units each have a Btu rating of 199,999 and, since they are linked together in a cascading effect, the units provide endless amounts of hot water to meet the needs of all 21 showers and 18 lavatory sinks. The system was designed with a recirculation pump to provide water at the fixture, so there is no waiting for hot water.

Navien America, located in Irvine, Calif, pioneered the condensing tankless water heater market by offering the first affordable products in the industry. In addition to condensing tankless water heaters, Navien also offers a condensing combination wall hung boiler with water heating. The combination boiler units are good for use in applications where radiant heating and potable domestic hot water are needed.

For additional information about Navien, visit www.NavienAmerica.com.



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