

CASE STUDY
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Affordable Installation Makes Tank-to-Tankless Water Heater Upgrade a Reality for Huntington Beach, Calif., Homeowner

John Park lived the problem every day: too little hot water in his new home. What surprised him was the affordability of having his plumber replace his old tank water heater with a high-efficiency, tankless unit that also provides abundant hot water.

BY JASON FLEMING

HUNTINGTON BEACH, CALIF. — John Park has had a lot of "new" in his life of late — a new, three-bedroom, two-bath home in Huntington Beach and a new baby. Yet for all that is fresh and new in his young life, until recently he's also had to contend with an age-old problem familiar to many homeowners: too little hot water from a tank-type water heater.

Park and his wife So Kim literally contorted their lives to cope with the situation: one showered at night, the other in the morning, so that each could have enough hot water. Then there was the hot

water needed to bathe the baby and handle all the other washing and cleaning chores. Different schedules led both husband

and wife to the same conclusion: they needed a new high-performance water heater that would give them all the hot water they needed, but without breaking the bank.

The Park family — John, So Kim and Elias — with their new Noritz NRC661 tankless water heater (top right).

The problem: Once he realized his 10-year-old, 40-gallon, tank-type water heater could not meet the needs of his growing family, Park decided to climb a technology learning curve. With no real knowledge of how a tankless system operates, he became a student of the many options on the market.

"On-demand technology just made more sense than a tank-type heater that heats and stores water," he says. "I don't claim to be a raging environmentalist, but if there's a more efficient product, I'll take it."

That's why, after some study and comparison-shopping, Park selected the new Noritz NRC661-DV. Introduced last April, the ENERGY STAR-rated, condensing water heater delivers up to 6.6 gallons of hot water per minute, with a maximum input of 120,000 BTU per hour. With an Energy Factor of .91 for natural gas (.93 for LP gas), the NRC661 is nearly 10 points more efficient than a comparably sized, conventional tankless unit, and approximately 30 points higher than a standard, tank-type gas-fired water heater. Designed for twobath residences in the warm-weather climates of the South and West, the NRC661 is also ideal for cottages and one-bath applications in the North.

Even though the new unit's BTU input is significantly higher than Park's old tank water heater, it uses the same half-inch gas-supply line connection. As a result, the tank-to-tankless switch in the Park resi-dence did not necessitate the added ex-pense of running a new, larger-diameter gas line.

Of course, had Park simply replaced his old water heater with a new tank unit –

PROJECT PROFILE

Project: Park Residence, Huntington Beach, Calif.

Application: Hot water for a two-bathroom, single-family home

Problem: Built during the 1960s, the Park residence previously relied upon a 10-year-old, 40-gallon, tanktype water heater that did not deliver sufficient hot water for showering, bathing and other cleaning chores. Frustrated by the problem, John Park chose to investigate alternatives, including tankless technology

Solution: Last May, a Noritz NCR661-DV gas-fired, condensing tankless water heater was installed in the Park home, immediately eliminating the family's hotwater problems.

Payoff: As the market's smallest condensing tankless water heater, the NRC661 not only carries a lower price point than the other Noritz residential condensing models, but its ability to use a half-inch gas connection eliminates the need to up-size to a 3/4-inch run. This, in turn, cuts installation labor by as much as 50 percent. These savings, combined with a \$300 federal tax credit and a \$200 rebate from the local gas utility, shrunk the cost differential between the NRC661 and a conventional tank water heater enough to make it affordable for John Park. He expects the extra money invested in his new, more efficient tankless water heater will be more than recouped over time through fuel savings, which he pegs at 15 and 20 percent annually.

Installation: Handled by one installer in less than three hours, including removal of the old tank-type unit. The NRC661 was installed in a back corner of the garage, and venting was done through a sidewall, using with Schedule 40 PVC.

Time Frame: May 2013

Installer: Magna Plumbing, Irvine, Calif.

even a larger model – that would have avoided upsizing to a ¾-inch gas line as well. "We could have bought another tank," he says, "but cost became a factor when we started pricing larger tank models. I decided that we needed better technology, not just a bigger tank."

Lower overall cost: Designed specifically to meet the needs of two-bathroom residences in warm weather regions, the NRC661 carries a lower price point than other condensing tankless water heater models. With its ability to use the same half-inch gas connection

and significantly reduce installation labor, the unit offered Park a highly attractive overall installed cost.

"This new product is great," says Park's installer, Mark Santana of Magna Plumbing. The Irvine, Calif.-based plumbing, heating and cooling service firm specializes in tankless water heater installations. After testing models from many different manufacturers, Santana has settled on the Noritz line because of its wide selection and proven quality.

"Not only does the new NRC661 have all the space- and energy-saving advantages that tankless technology provides, but it's also affordable. In fact, this product brings the installed cost of a tankless water heater much closer to that of a tank type heater, and that's a first."

Mark Santana of Magna Plumbing handled the installation of the Park family's new tankless unit. The NRC661 unit "brings the installed cost of a tankless water heater much closer to that of

a tank type heater, and that's a first.'

Further shrinking the cost gap between tank and tankless for Park was a federal tax credit of \$300 for installing an ener-

gy-efficient appliance, as well as a \$200 rebate from Southern California Gas Company. (**Note:** Rebates of various amounts are available from gas utilities around the country.) Meanwhile, he expects the remaining extra cost to be offset by a 15 to 20 percent reduction in his annual gas bill, thanks to the increased efficiency of the NRC661.

"We fully expect the NRC661 to challenge the conventional thinking that switching from tank to tankless water heating is unavoidably difficult and expensive," says Noritz vice president of sales and marketing Jay Hassel.

Easy installation: Park's only remaining concerns had to do with the installation. Having endured too many days with too little hot water, he worried that removing the old tank heater and installing the new wall-hung model would mean an extended period without hot water. But his worries proved unfounded: The change-out was not a major production. In fact, Magna sent a single installer who completed the job in less than three hours.

Since its arrival last May, the new tankless water heater has proven a welcome addition to the Park household, which had tolerated the less-than-adequate hot water situation for quite a while. "It was a question of dollars," Park explains. "If we had the funds available, we might have gone tankless earlier. But it wasn't until this new product came on the market that the tankless option made economic sense."

While Park sold himself on the technology of tankless water heaters, other family members were a bit skeptical at first. "My in-laws had never experienced tankless water heating, so they questioned whether we could solve all our hot-water problems with a medicine cabinet-sized appliance that hangs on the wall, instead of a large tank that sits on the floor."

The outcome? Everyone in the Park family is now a true believer. "Our experience has been nothing but positive," Park comments. "We have the hot water we need, its temperature is reliable, we're saving energy and we've capitalized on the incentives to help make the investment worthwhile."

Jason Fleming serves as marketing manager for Noritz America, based at company headquarters in Fountain Valley, Calif. He can be reached at: (866) 766-7489.

NORITZ AMERICA CORPORATION, a subsidiary of Noritz Japan, has corporate offices in Fountain Valley, Calif., and Atlanta, offering a full line of tankless water heaters to meet the hot water demands of residential and commercial applications. Noritz supports its products with a national network of skilled representatives and employees who are committed to providing the finest products and services to our communities by helping consumers live in a more comfortable, efficient and healthy lifestyle. For more information on Noritz America and the entire line of Noritz's ENERGY STAR® tankless water heaters, please call (877) 986-6748 or visit our website at www.Noritz.com

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Hi-res versions of photographs to accompany this case study are available for immediate download in .tif format by using this link: http://noritz.oreilly-depalma.com/2013/cs-park-residence.shtml.

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Photography Credit

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