CASE STUDY



Eemax, Inc.

Lake Hope State Park, Vinton County, Ohio

In an effort to conserve water and energy and provide efficient levels of hot water to guests, Lake Hope State Park decided to monitor the hot water consumption in their cabins, comparing the number of kilowatts needed to heat a gallon of water with a conventional storage tank water heater vs. an Eemax EX190TC "Series Two" Electric Tankless Water Heater.

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CUSTOMER PROFILE



Lake Hope State Park a natural paradise lies within 26,000-acres of the Zaleski State Forest in Southeast Ohio. Lake Hope has 69 cottages that are rented out year round with most rentals occurring in the spring, summer, and fall.

SITUATION

Lake Hope State Park conducted in-house guest surveys in which guests stated that they run out of hot water frequently. Darryl Trigg, Park Engineer, contributed to this case study in conjunction with Southeastern Ohio Power for Rod Garey, Park Manager, Lake Hope State Park. In order to obtain accurate information, Lake Hope installed water and electric meters in each cabin to monitor hot water consumption. They were able to obtain accurate measurements of the number of kilowatts needed to heat a gallon of water with a storage tank water heater vs. an Eemax Electric Tankless Water Heater.

RESULTS

At Lake Hope State Park a test was conducted comparing two cottages – one with a conventional tank water heater and one with an Eemax EX190TC Series Two Electric Tankless Water Heater. Here are the results:

Lake Hope has 69 cottages. Each one is rented an average of 182 nights per year, which means for all 69 cabins, the average occupancy is 12,558 nights rented per year. Multiply that by 25 which is the average amount of gallons of hot water used per cabin per night, and you have the total number of gallons used in one year.

Here is a breakdown of calculations:

12,558 x 25 = 313,950 gallons of hot water per year

 $313,950 \times .032 = $10,046.40$ (cost per year with a conventional tank-style water heater)

313,950 x .023 = \$7,220.85 (cost per year with an Electric Tankless Water Heater)

\$10,046.40 (cost per year for Tank system)

- \$7,220.85 (cost per year for tankless system)

	Cottage #42	Cottage #44
Heater Type	Tank	Tankless
Kilowatts Used	688	408
Gallons of water	2370	2470
Cost per Gallon	.032*	.023*
*As calculated by Southeastern Ohio Power		

\$2,825.55 SAVED PER YEAR WITH EEMAX EX190TC SERIES TWO TANKLESS HEATER

\$3,000

Lake Hope State Park is saving nearly \$3,000 per year with their new Eemax Electric Tankless Water

SOLUTION

Electric Tankless Water Heaters use energy only when water is being drawn from the hot water tap at the fixture. Conventional storage tank type heaters keep large amounts of water constantly heated to a high temperature of 140°F, waiting for possible use, as a result tank water heaters are subject to "standby-heat-loss". They are also prone to leak and require by code a temperature and pressure relief valve, drain pan and thermal expansion tank which by code are not required for tankless heaters.

BENEFITS

- Hot water arrives instantly with point-of-use installation. No wasted water down the drain.
- No stand-by heat loss since there's no large storage tank to keep heated 24/7.
- Up to 90% space saving compared to large tank heaters.
- Continuous hot water flow, guests never run out of hot water.
- No heating of water when cabins are not occupied means lower utility cost.
- When cabins are occupied, rental fees pay for water use.
- Easy maintenance and reduced downtime improves customer service, with no tank to drain before changing elements.
- Saving energy means you are reducing your carbon footprint which is good for our planet.

CONCLUSION

Space-saving tankless heaters allow Lake Hope to keep water hot when and if their guests need it. They are saving nearly \$3,000 a year with their new Tankless system from Eemax. This study proves that on-demand tankless water heating is one of the most effective ways to conserve energy, water, space, and money.



Established in 1988, Oxford, Connecticutbased, Eemax, Inc., has quickly emerged as the market leader in electric tankless heaters for use in commercial, industrial, and residential applications. Eemax products activate instantly and deliver an endless supply of hot water at a preset temperature to any point of use with 99% energy efficiency. Eemax products are made in the USA, are lead-free and ruggedly constructed to last for decades. The company produces green products that save water, conserve energy, and reduce costs. Visit www.eemax.com for details.

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