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If you've been looking for a new dishwasher and you want to buy the most efficient one you can — and why wouldn't you? — you may already have discovered an efficiency Catch-22. When you use less water, it generally takes more energy to get dishes clean. The water must be hotter, the sprayers more intense. If you want to save energy, you need to use more water to get dishes clean.

Energy Star certification sets a minimum standard for efficient use of both water and energy, and Earth911 has already combed through the list of certified dishwashers to find the best. But even among the greenest dishwasher manufacturers, there is a trade-off between water and energy efficiency. Which is more important?

What Counts as Efficient

Efficiency standards evolve over time as customer demand drives the development of new technology. At the turn of the century, a dishwasher that used only five gallons of water per cycle was impressive; people doubted if a load of dishes could actually get clean with so little water. At the time, the average dishwasher used 10 gallons of water per load. Since 2016, the Energy Star criteria for standard-sized dishwashers with eight or more place-setting capacity are \leq 270 kilowatt-hours (kWh) of electricity per year and \leq 3.5 gallons of water per cycle.

That's right, water usage has been cut by 65 percent over just two decades.

The Trade-Off

The highest rated dishwasher manufacturer on Earth911's list is Miele.

Miele makes some of the most efficient dishwashers available — nearly half of their dishwashers make Energy Star's Most Efficient list — and the company is rated highly for a variety of reasons beyond efficiency. But even Miele's dishwashers provide evidence of the trade-off between water and energy. While their dishwashers' energy use can be as low as 199 kWh/year, they hover near the

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outside range of Energy Star water requirements, using between 3.0 and 3.5 gallons of water per cycle.

By contrast, <u>KitchenAid</u> has dishwashers that use as little as 1.95 gallons per cycle, but their most energy efficient dishwasher uses 260 kWh/year — nearly the maximum allowed by Energy Star.

What Is Most Important?

There is no universal answer for whether it's better to provide water efficiency or energy efficiency. For <u>Earth911's list</u>, we used Energy Star certification as a baseline. Then, we considered the company's overall sustainability practices for ranking. But consumers should also consider the specifics of their community.

If you live in a coal-powered region with a sustainable freshwater supply, energy efficiency is more important. By contrast, a homeowner with a solar power system who lives on the desert might prioritize water efficiency.

If you aren't sure about your local infrastructure, use the <u>EPA Power Profiler</u> to find out how clean your region's power supply is compared to the national average. The interactive maps on <u>DWMAPS</u> can help you discover your drinking water source. Finding information about its sustainability can be more challenging. Look online or call the number on your water bill for a copy of the utility's annual report. If you don't find any information, your local utility probably is not prioritizing sustainable water management, so you should.

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