# What is a Battery-Enabled Heat Pump?


(Image source: *Green Building Advisor, "Carrier Begins Field Trials for Battery-Enabled HVAC Systems"*)

Heat pumps are incredibly efficient HVAC systems that provide both heating and cooling. Their efficiency is owed to the fact that they draw heat from the air and move it, rather than generating heat like conventional air conditioners. While heat pumps are efficient, they still use a considerable amount of electricity. That's why Carrier, one of the largest HVAC companies in the country, is currently piloting a new product: battery-enabled heat pumps. In this system, a small modular battery (5-10 kWh) is installed next to a heat pump. The battery draws electricity from the grid when energy demand is low and stores the energy for a few hours. Then, when demand is high and electricity prices spike, the heat pump draws electricity from the battery instead of the grid. This system ensures that the heat pump runs smoothly and reliably while drawing electricity from the grid when it is least expensive.