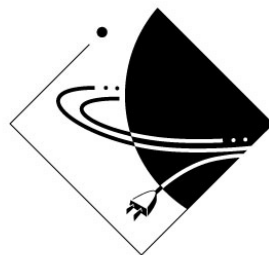


Hot Water Choices: Advantages and Disadvantages

System	Advantages	Disadvantages
Gas/propane storage water heater	Very low first cost Easy to install Available in sealed combustion models	Low energy factor Requires separate chimney or venting for combustion gases
Gas storage condensing water heater	Very high recovery efficiency EF = 0.86 Sealed combustion	Much more expensive than conventional gas storage Requires natural gas service or expensive propane
Instantaneous gas/propane/oil water heater	High efficiency and low annual cost Easy to install Available in sealed combustion models	Much more expensive than storage models Requires additional venting for combustion gases
Electric storage water heater	Available with very thick foam insulation EF 0.95 units are affordable No chimney or combustion vent	Electricity is relatively expensive Recovery not as quick as combustion water heaters
Electric heat-pump water heaters	Delivers up to 2.2 EF May use waste heat from a central heating system	Expensive Cools the room where they're installed
Indirect water heater	Avoids an additional combustion vent when coupled to a boiler Efficient if powered by an efficient boiler	May be powered by an over-sized boiler operating inefficiently Causes oversized boiler to operate during the summer
Solar water heaters	Fuel is free Integrates well with boilers and ground-source heat pumps	Expensive and seasonal Year round systems are impractical or very expensive



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