

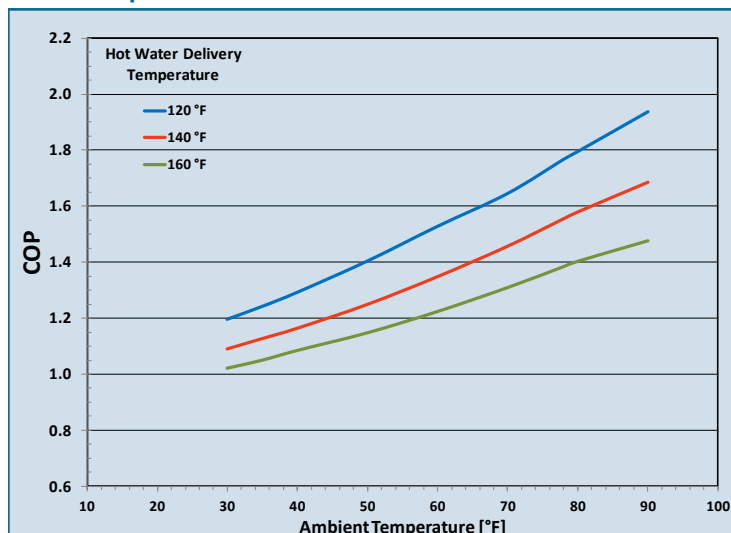


# High Efficiency Water Heater

## Features and Benefits

- **400,000 to 600,000 BTU/hr** of hot water ideal for domestic hot water, swimming pools, space heating, or process heat
- **Hot water delivery temperature 100°F to 160°F**
- **Advanced thermodynamic cycle** extracts available energy from the environment, and uses mechanical work from a gas engine (natural or propane) to pump this heat to a higher useful temperature
- **Highly efficient heat pump** with reclaimed engine waste heat resulting in a coefficient of performance (COP) of 1.2 to 1.8
- **Exceeds clean emission standards** throughout the US, including California
- **50% reduction in carbon footprint** saving 100 tons of carbon at typical installations
- **Ultra-low emissions with near-zero** criteria pollutants
- **Minimal electrical power requirement** comparable to a household appliance (120 VAC, 15 amp)

## Heat Pump Performance



## Projected Typical Savings (delivered hot water at 120°)

Max 14 hours/day (6 AM to 8 PM)				
Metro Area	Commercial Gas Price [\$/MMBtu]	Operating Hours	Weighted COP	Annual Gas Savings
Atlanta	\$14.93	4,984	1.71	\$21,400
Honolulu	\$35.09*	5,110	1.86	\$64,602
Miami	\$11.09	5,110	1.86	\$20,400
New York	\$10.72	4,652	1.63	\$12,500
Phoenix	\$12.15	5,110	1.84	\$21,500
San Diego	\$7.75	5,110	1.68	\$11,100

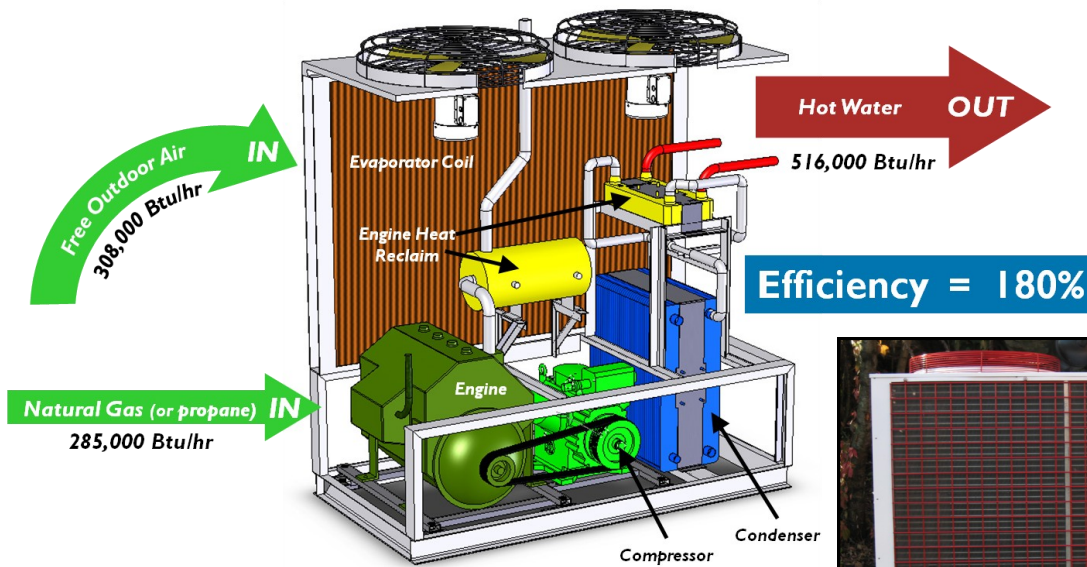
\*Assumes Commercial Propane at \$3 per gallon.

## Tax Incentives Available

*Investment Tax Credits ("ITC") and Accelerated Depreciation are currently available for Combined Heat and Power products including the Ilios High Efficiency Water Heater (HEWH):*

- *The Ilios HEWH currently qualifies for accelerated/bonus depreciation benefits and a 10% investment tax credit ("ITC")*
- *These incentives reduce the payback period for the Ilios HEWH and decrease costs over the life of the product*
- *There may be additional incentives available through state and local agencies as well as your natural gas company or propane dealer*
- *We recommend working with a qualified tax professional to determine specific benefits for your business*

# Ilios High Efficiency Water Heater



Ambient Outdoor Temperature: 75 °F  
 Hot Water Delivery Temperature: 120 °F  
 $COP = 516,000 / 285,000 = 1.8$   
 $\Delta T = 20^\circ F @ 50 \text{ gpm}$



## Specifications: Ilios HEWH-500-AS

Performance	
Thermal Output	400,000 - 600,000 Btu/hr
Rated COP	1.2 to 1.8
Water Flow Rate	50 gpm
Water Delivery Temperature	100° - 160°F
Sound Rating	72 dBa @ 20'
Field Connections & Installation	
Water In & Water Out [copper tube]	2" Nominal connection
Electrical Requirement	120V / 1 phase / 60Hz, 15A
Gas Inlet	1" connection
Required Gas Pressure	8" - 12" wc
Weight	4,200 lbs
Dimensions	7'3"L x 4'1"W x 7'1"H
Components	
Engine	Ultra low-emission natural-gas 4-cylinder engine [<50 bhp]
Generator	Internal 5 kW generator for parasitic load
Compressor	Open-drive reciprocating compressor
Condenser	Compact brazed-plate condenser
Refrigerant	Low-pressure, HFC-134a