

Natural Gas Heat Pump Solutions (GHP)

High-efficiency cooling and heating while reducing CO₂ emissions



What is GHP?

Gas heat pump (GHP) systems provide all-in-one high efficiency and cost-effective cooling and heating solutions for homes and businesses. Mainly powered by natural gas, GHP systems can lower operating costs, reduce CO₂ emissions, and potentially eliminate the need for electricity supply upgrades that may be required by electric heat pump systems. In some instances, the use of a GHP can decrease seasonal overloading of the electricity grid or reduce the demand for electricity during more expensive peak times.

Benefits of CHP

- Reliable, efficient cooling and heating
- Multi-zone capability
- Lower utility distribution rate
- Operational cost savings
- Some units provide dedicated or emergency power
- Comfort and space temperature control
- Waste heat recovery
- Flexible installation options
- Quiet operation - *comparable to quiet office or library*

In addition to a lower utility rate, an allowance of \$150 per ton, payable to a maximum of 100 tons, is available to commercial customers who install natural gas-fired space conditioning equipment when replacing electric equipment.

When to consider GHP

- Building size - typically over 4,000 square feet
- Environmental business objectives
- Multi-zone control cooling and heating are necessary
- Resiliency is critical to the operation
- Substantial cooling and heating load

Why Peoples Gas?

Peoples Gas offers GHP solution design and financing, leasing options, operational, technical, regulatory, and system expertise.

For more information on how Peoples Gas can help or to schedule a site visit, contact:

Betty Merlina, Program Manager

Office: 813.228.1904 Cell: 813.601.8157

BJMerlina@tecoenergy.com | PeoplesGas.com/GHP

How a Natural Gas heat pump works

Using a variable refrigerant flow (VRF) a 3 or 4-cylinder natural gas engine drives a scroll refrigerant heat pump compressor to supply a variable amount of refrigerant flow to the indoor fan coil units, providing the right amount of cooling or heating for comfort. The VRF system uses 1/10th the electricity of a standard system and can be resilient during a power outage with a backup power source, to maintain building heating and cooling.

GHP features

- Ducted and ductless fan coil options provide flexibility with installations in new construction and retrofit applications.
- Accommodate up to 29 zones on one refrigerant piping network.
- A 3-pipe VRF option can simultaneously heat specific zones while cooling others. VRF works at the needed flow rate enabling energy savings at the heating or cooling load conditions.
- Integrate with dedicated outdoor air systems (DOAS), and heat recovery ventilator systems.
- Flexible control options including programmable thermostat, intelligent touch manager, BACnet or LonWorks Gateway interfaces.



Specifications

Engine	Reciprocating natural gas engine, driving a scroll variable refrigerant flow compressor
Cooling Capacity	8 - 15 tons per GHP unit
Heating Capacity	100,000-200,000 BTU/hr
Refrigerant	R - 410A
Sound Pressure Level	54 db in quiet mode/57 db normal mode; comparable to quiet office or library
Dimensions	Approx. Varies by unit: (55 x 38 x 82) to (67 x 32 x 85) inches
Weight (lbs)	Approx. Varies by unit: 1340/1896/1962

