

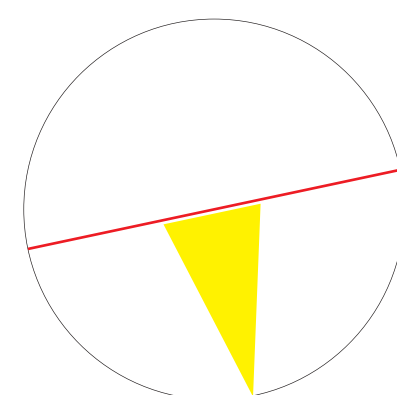
Passive Design

Southern Exposure



Adjusting window sizes and maximizing southern exposure greatly improves solar gain during the colder months.

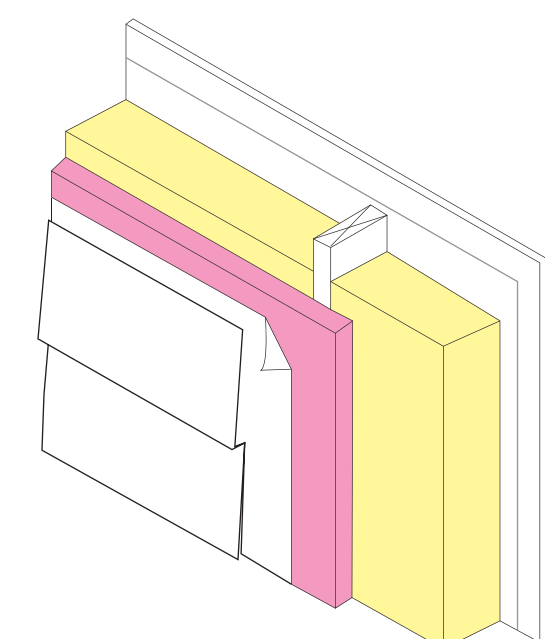
Solar Orientation



Solar gain is maximized when building is orientated at 172°

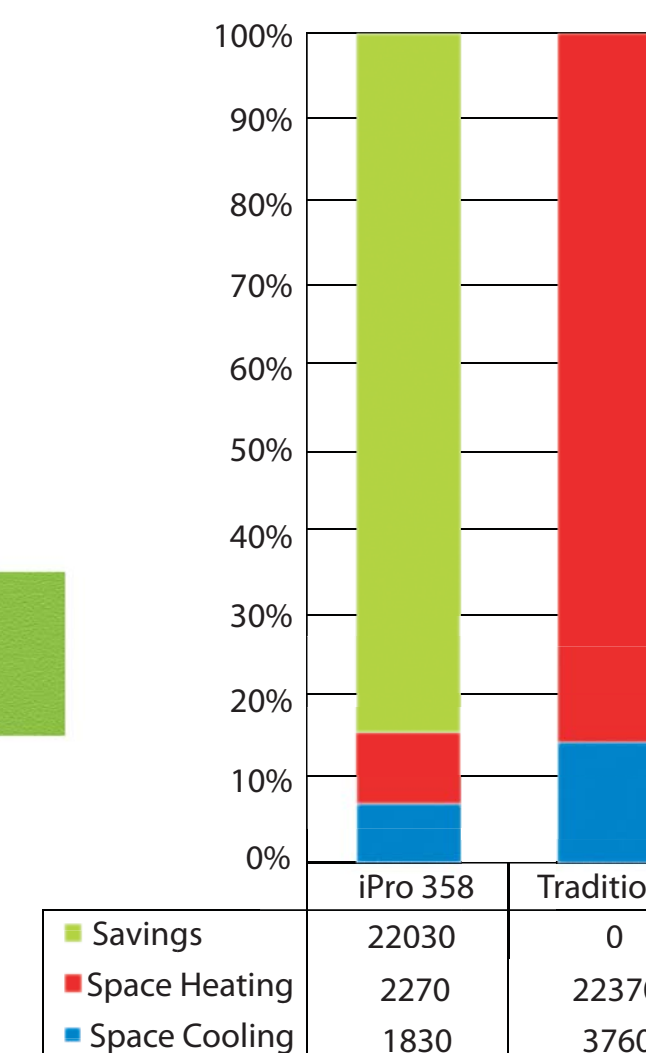
Advanced Framing

Advanced framing is also known as Optimum Value Engineering. This stick framing technique uses smarter, more efficient design to minimize the use of wood and increase the amount of insulation, resulting in a more energy efficient house.



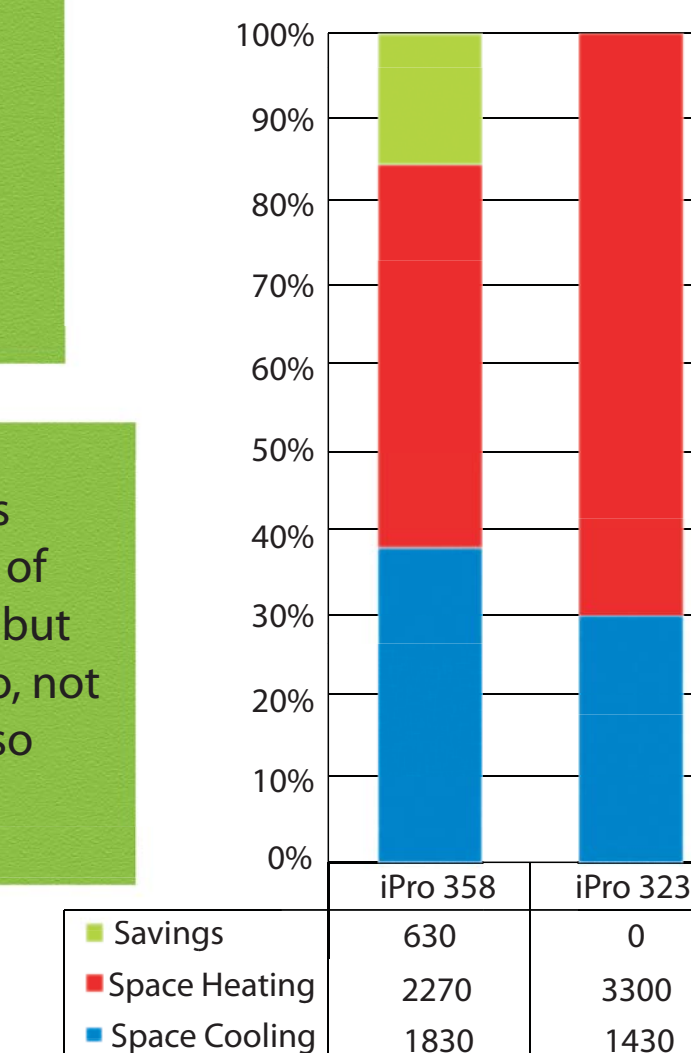
Energy Consumption

Traditional House



84% More efficient

iPro 323



iPro 323 Cost per unit: \$280,303

iPro 358 Cost per unit: \$200,000

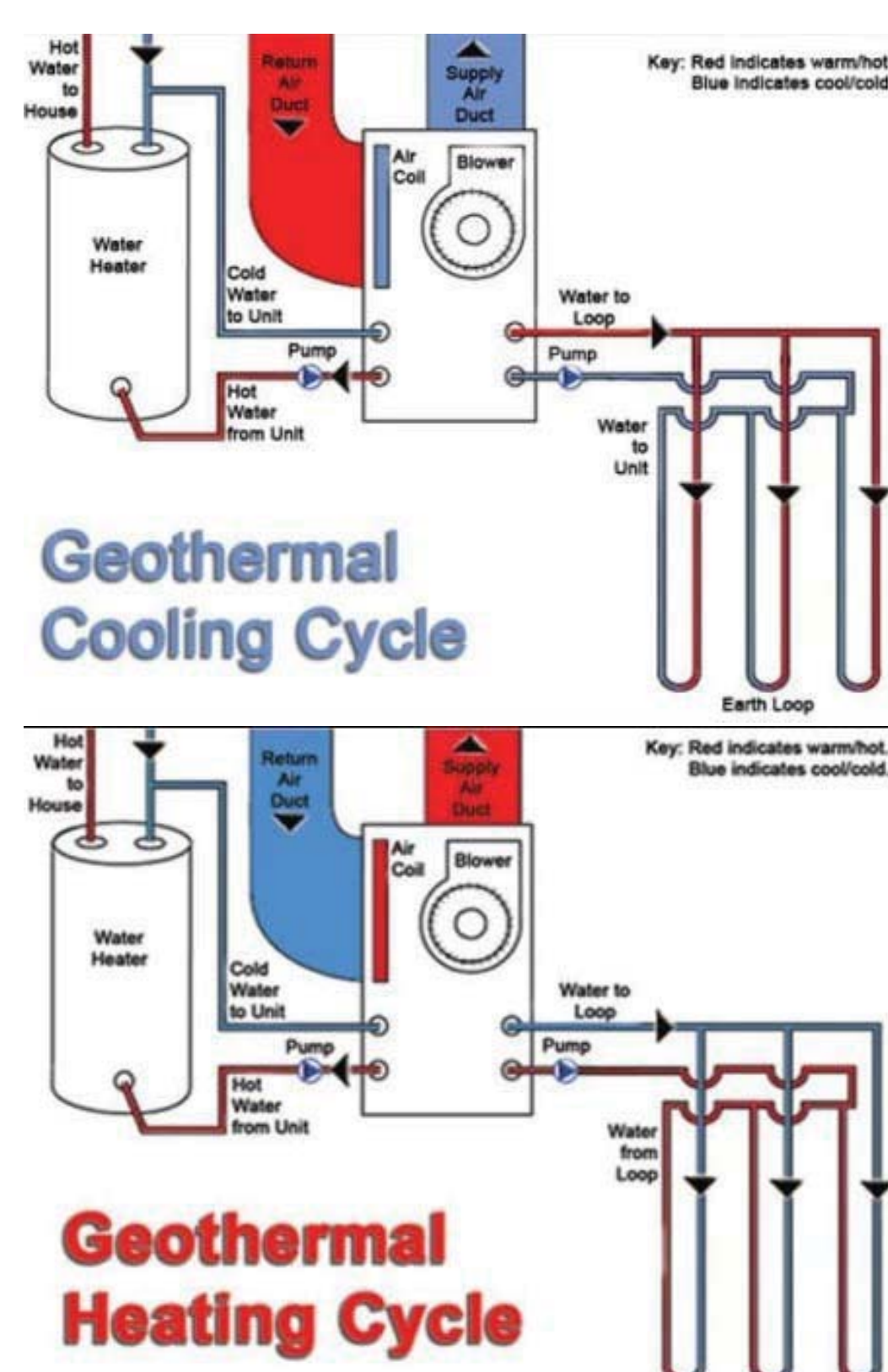
13% More efficient

iPro 323 employed numerous advanced technologies in the pursuit of a self sustaining house independent of offsite electricity. They were able to achieve this goal but sacrificed affordability in the process. We were able to not only, design a more energy efficient envelope, but also incorporate more affordable and efficient systems.

Active Systems

Geothermal System

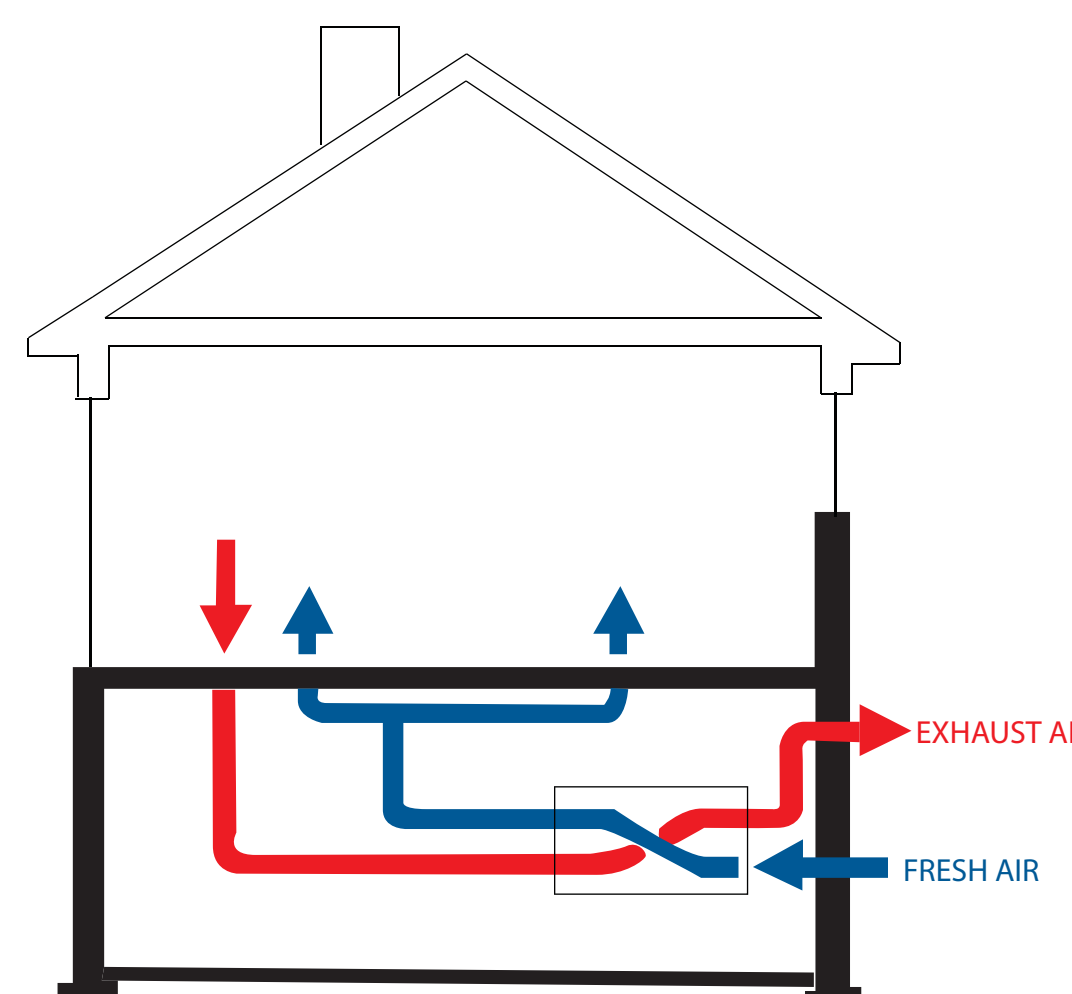
Geothermal heating and cooling systems — also called ground source heat pumps, earth source heat pumps, or geothermal heat pumps — move the heat from the ground into your home using the same technology your refrigerator uses to remove heat from food. It is also able to remove heat from your home using an inverted process with twice the efficiency of traditional cooling methods. The unit looks very similar to a traditional furnace but, unlike its inefficient counterpart, does not consume any gas and only requires the use of an electrical pump to circulate the ground fluid and air.



Energy Recovery Ventilator

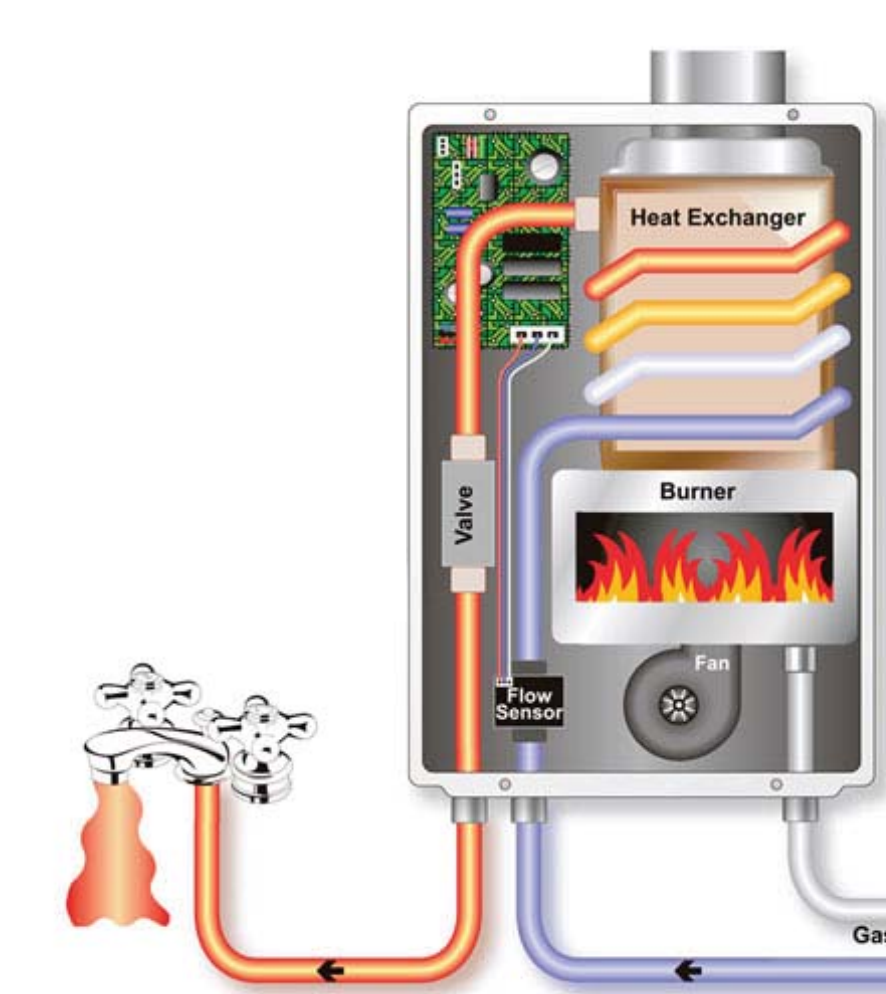
Exhaust air is run through a heat exchanger with incoming fresh air allowing the exhaust air to transfer or absorb energy from the incoming fresh air. This piece of equipment would be installed easily on any system using forced air.

Recovers up to 80% of heating and cooling energy



Instantaneous Water Heater

Heats the water as you need it instead of continually heating water stored in a tank. On average achieves a 25-30% monthly savings on your energy bill compared to a conventional tank water heater.



Conscience Energy Use



Utilizing whole home automation by Life Ware[®] inhabitants can control every facet of their experience within the home. They have the ability to set 'scenes' which automatically adjust blinds, lights and HVAC settings.

All houses are also equipped with an LCD TV and in ceiling speakers which they can use to adjust settings and monitor their energy consumption as well as enjoy their favorite movies or music.

