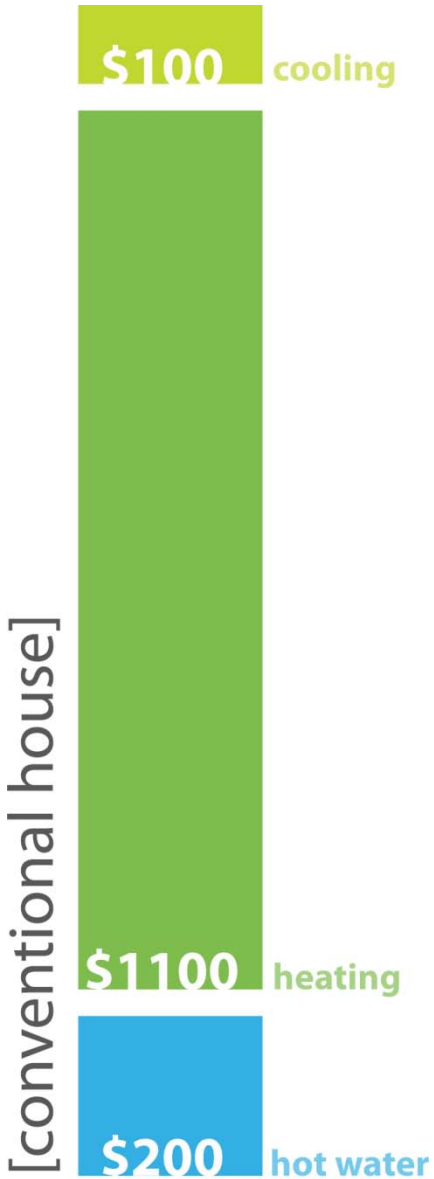
GEOS Houses are 85% More Energy Efficient

Cost per year

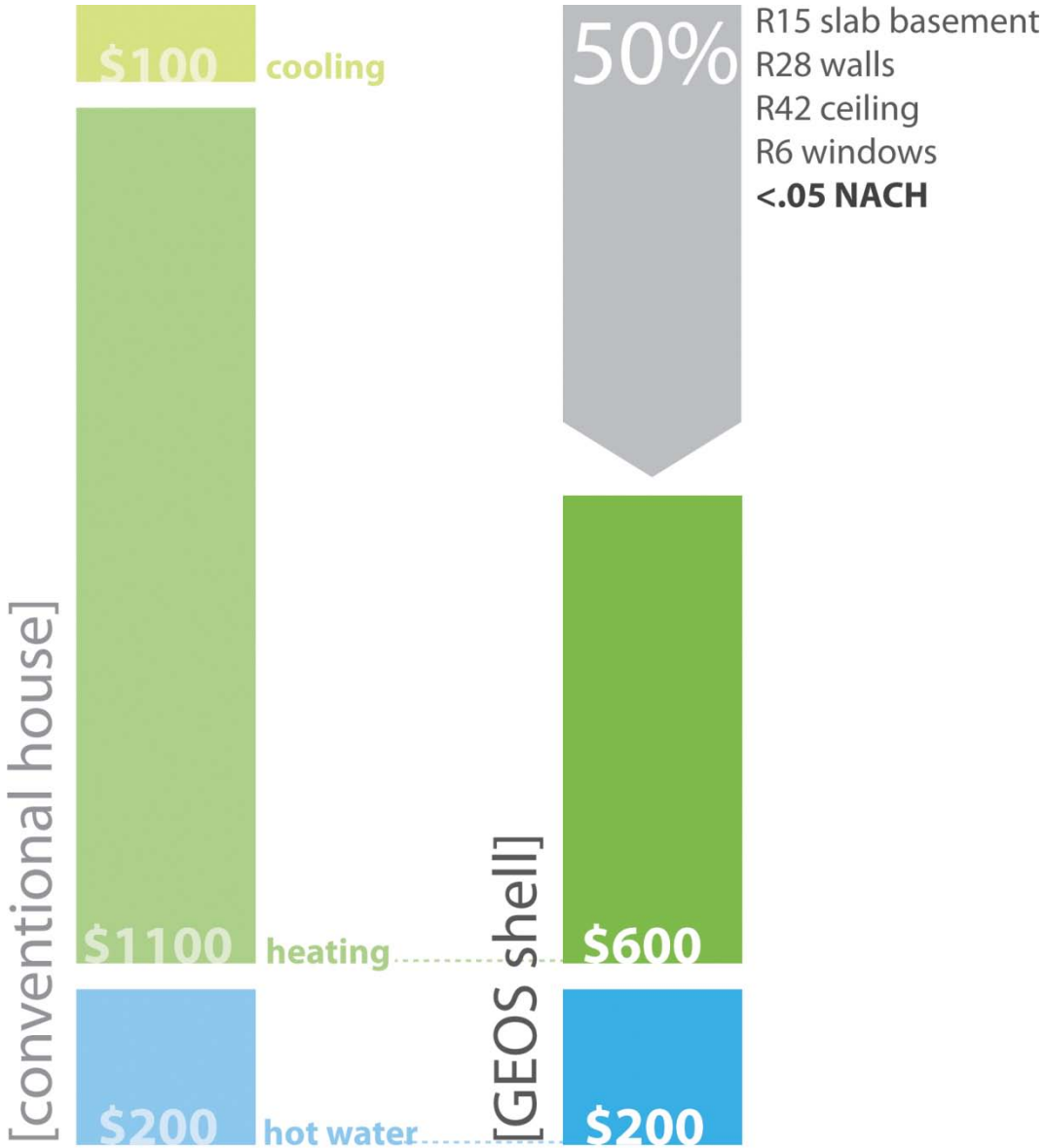


Heating and Cooling EE homes

	Heat	Cool
Peak load in kbtu/h	15-20	8-10
Annual load in kbtu/year	21,000	5,000
in kWh/year	2,000	250

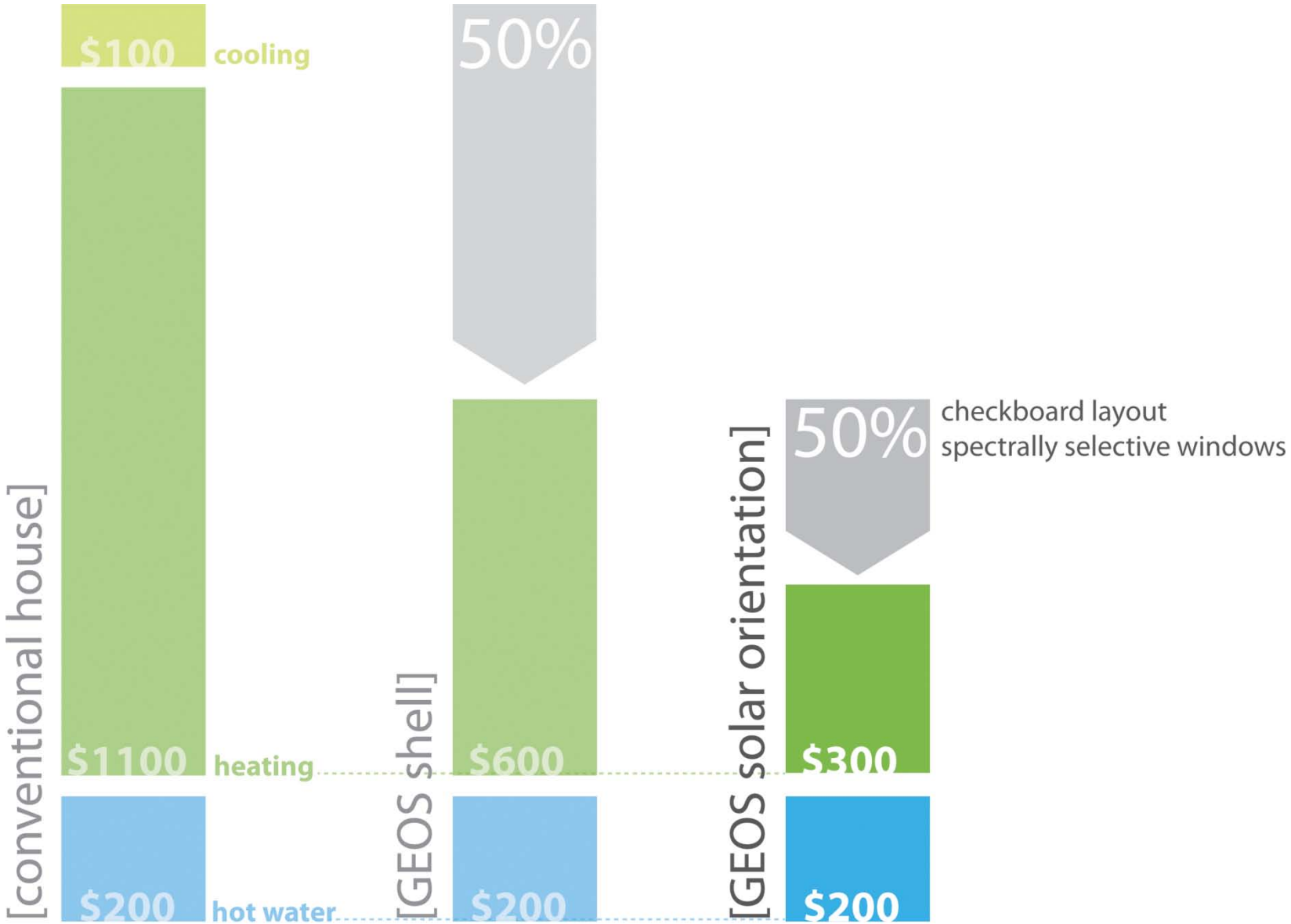
GEOS Houses are 80% More Energy Efficient

Cost per year



GEOS Houses are 80% More Energy Efficient

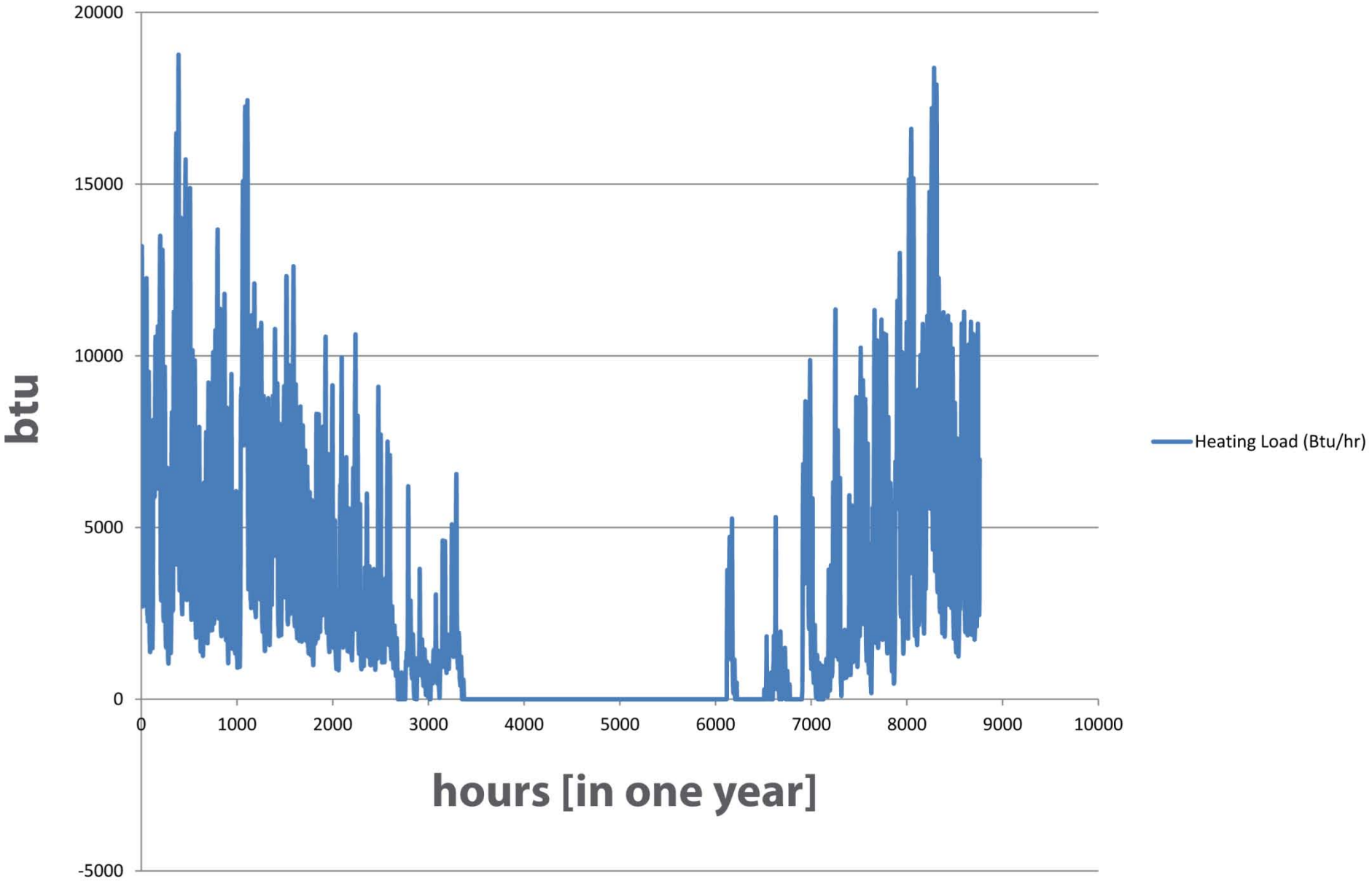
Cost per year



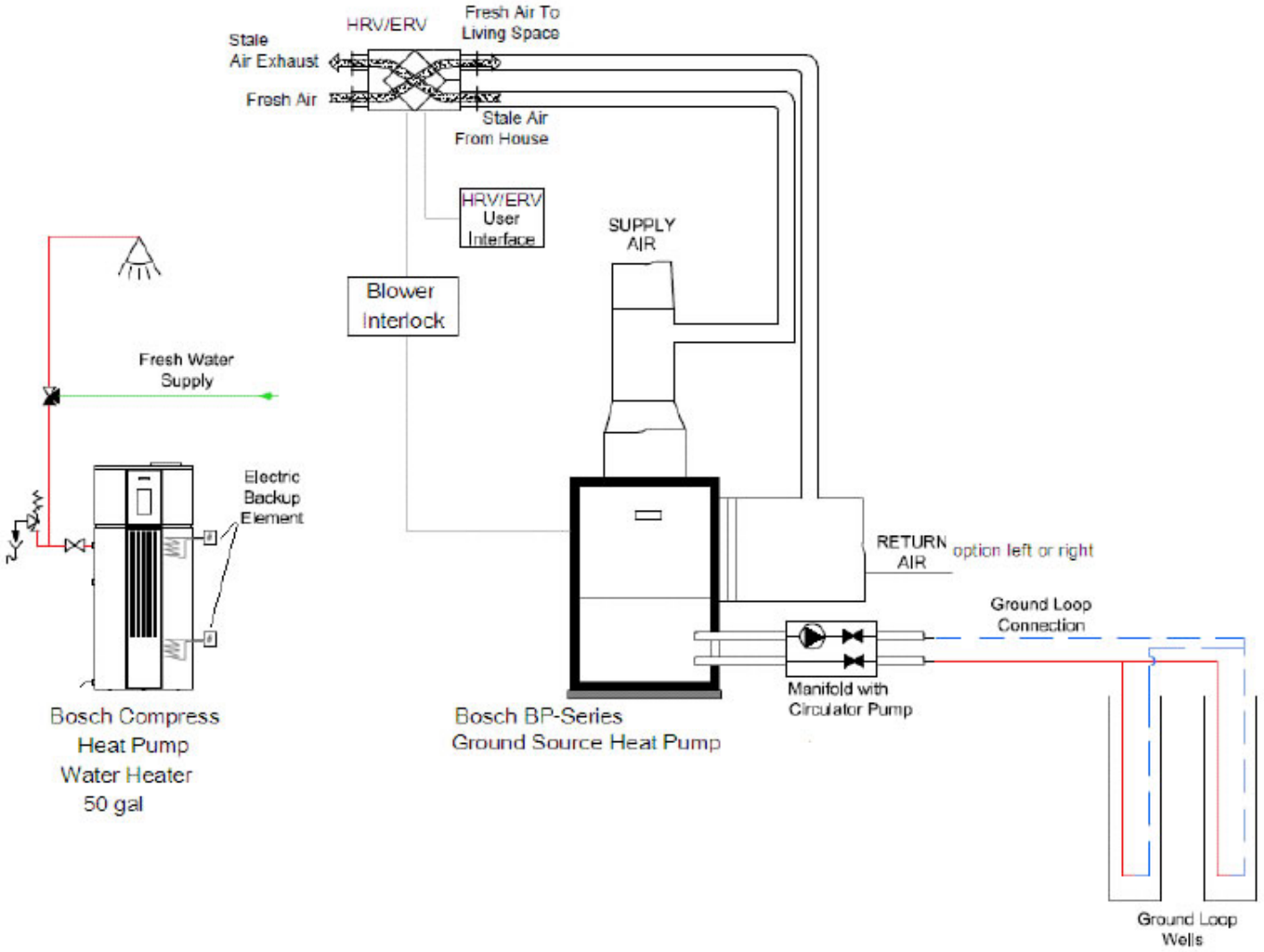
GEOS Houses are 80% More Energy Efficient

Cost per year

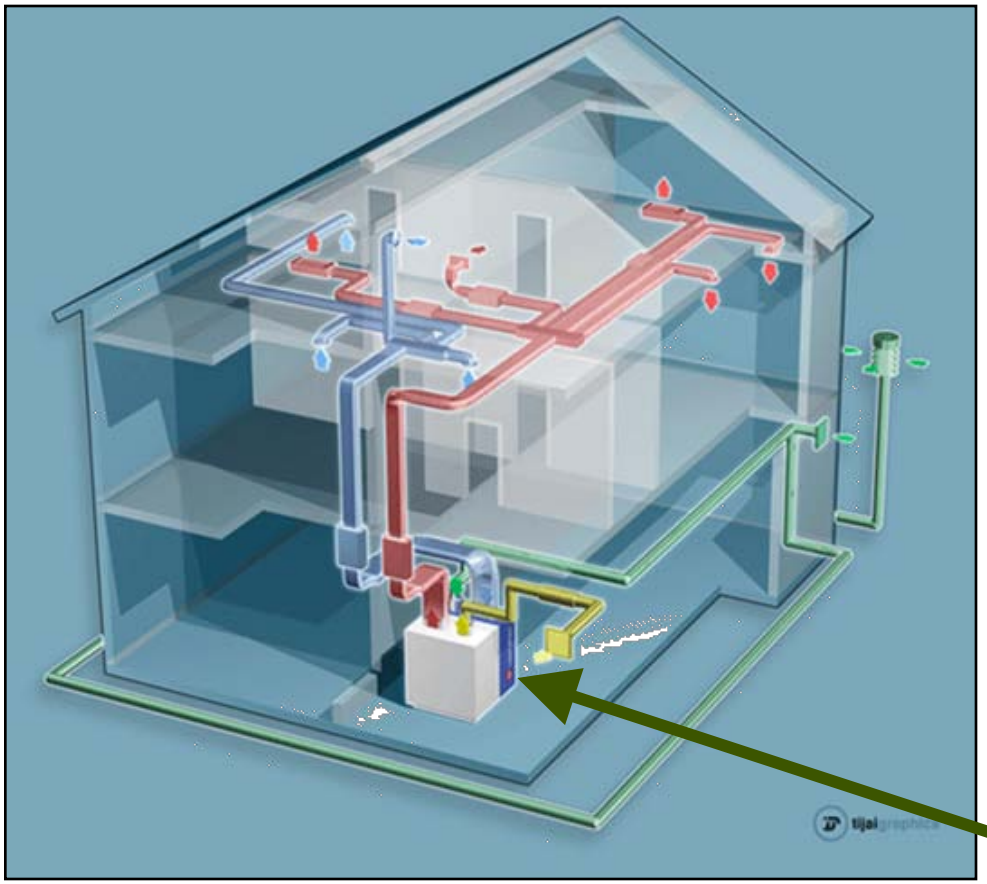
Hourly Heating Load



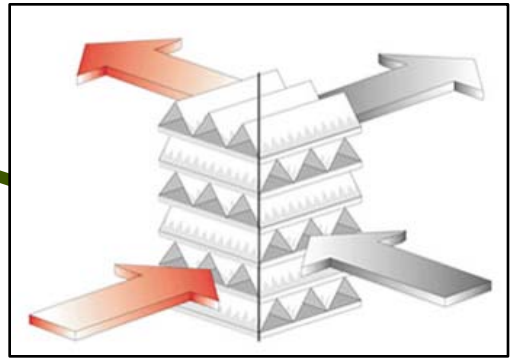
System for Ventilating, Heating, Cooling, and Hot Water



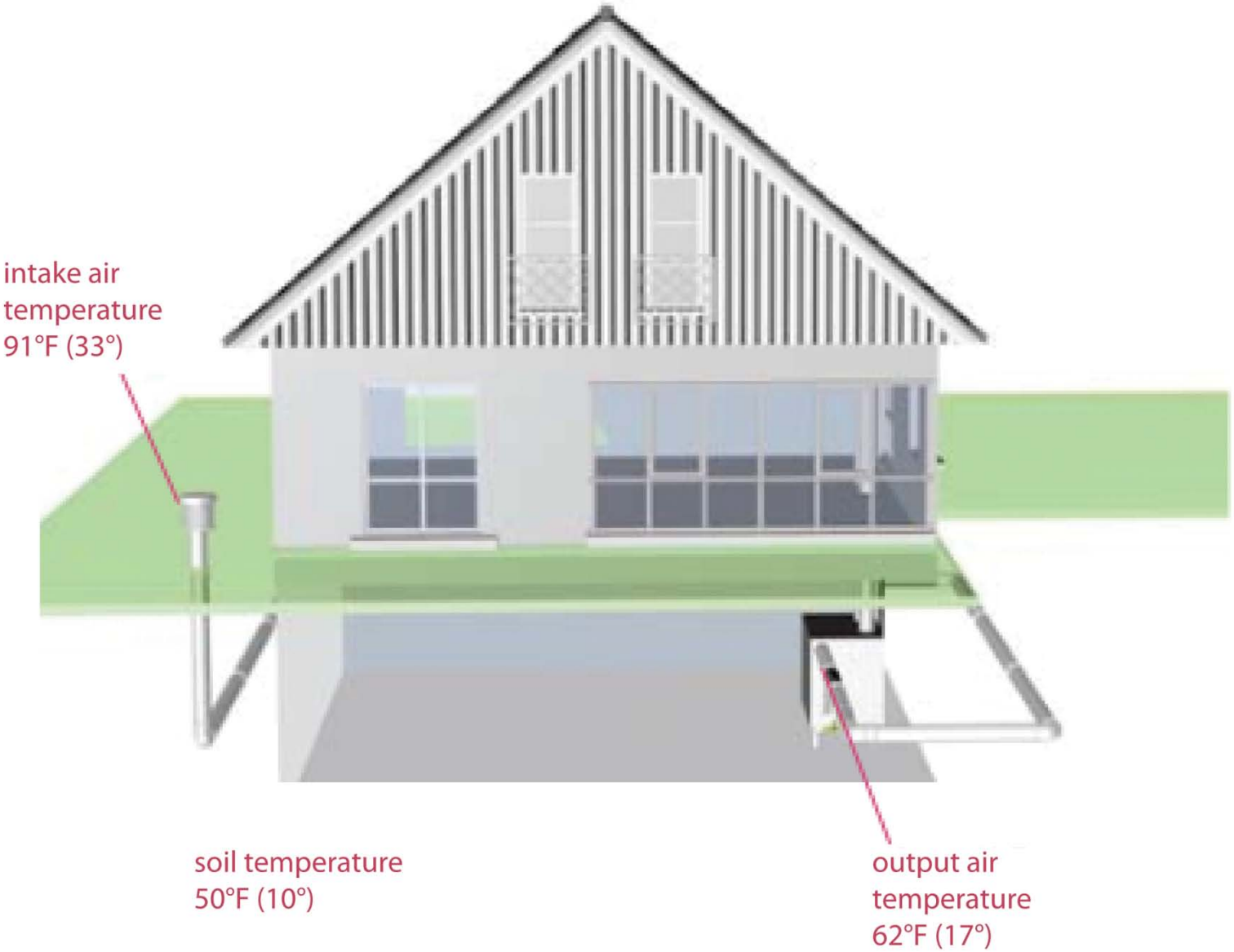
Geo-Assisted Energy Recovery Ventilation (ERV)



- Constant filtered fresh air
- Pre-treated by Earth Tubes
- Heating/cooling distribution
- Extracts 96% of exhaust heat
- Low maintenance
- Very low noise

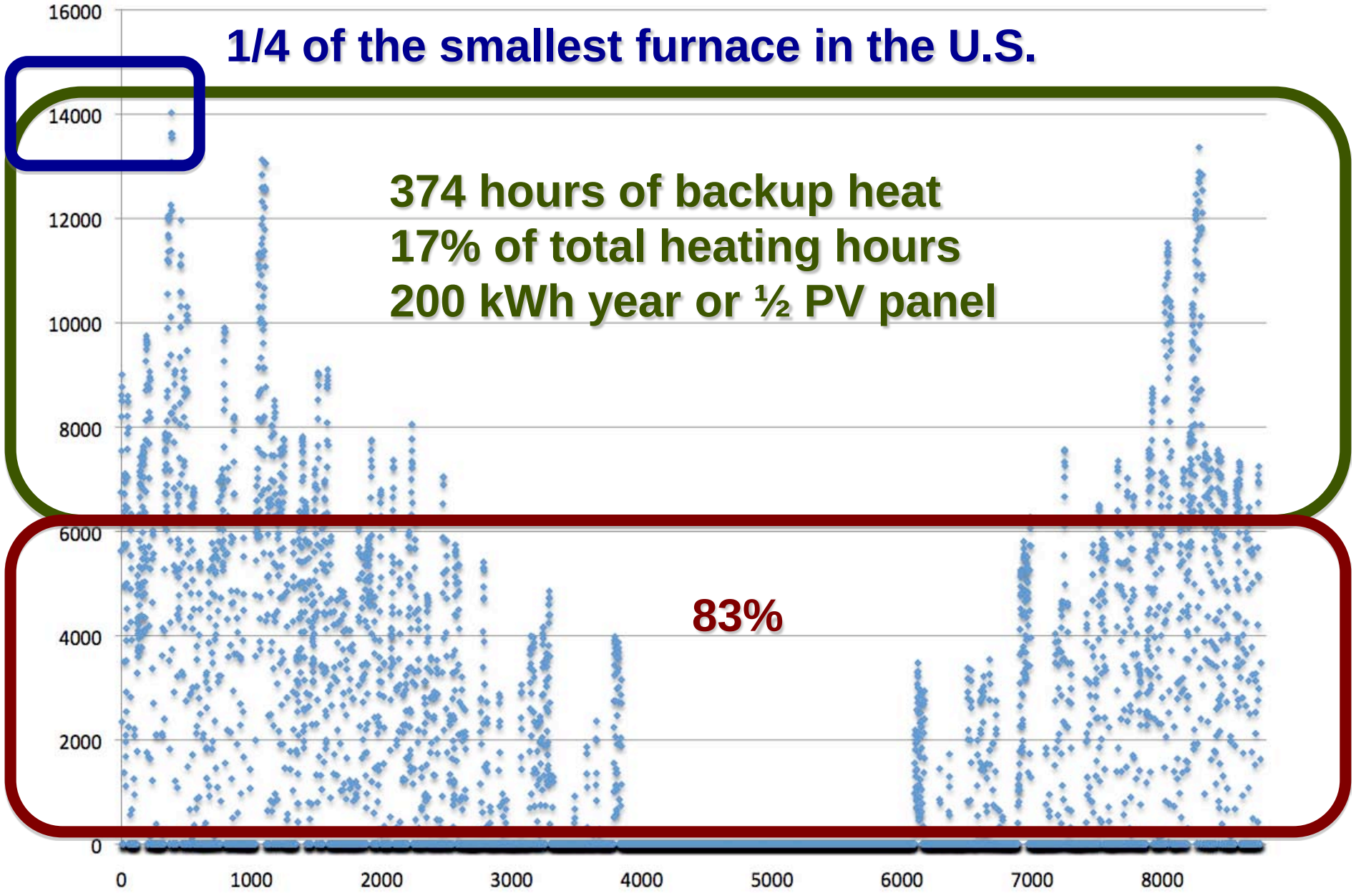


Ground-Air Heat Exchange: Capitalizing on the Earth's Energy



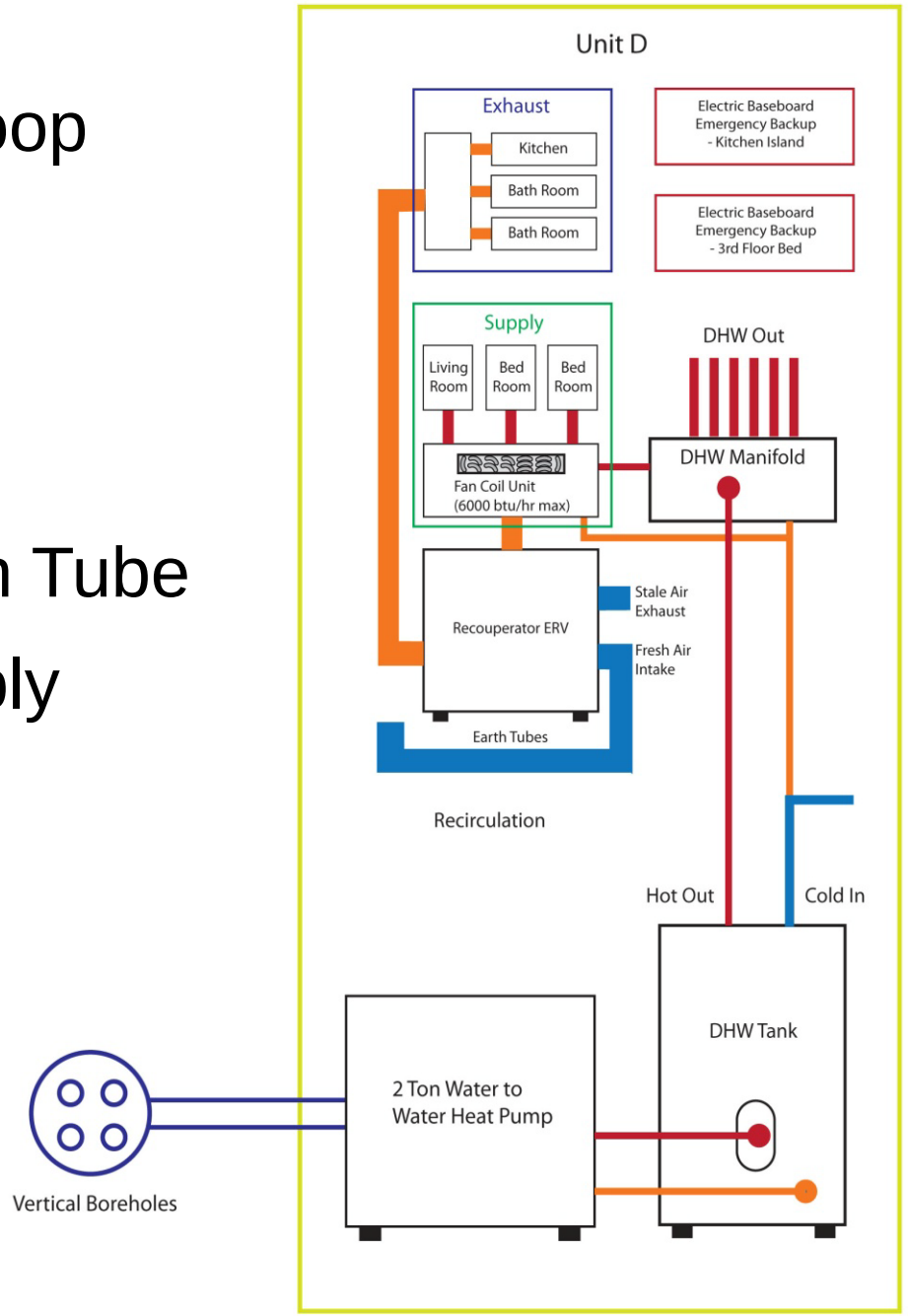
Sizing Mechanical System for Very Small Loads

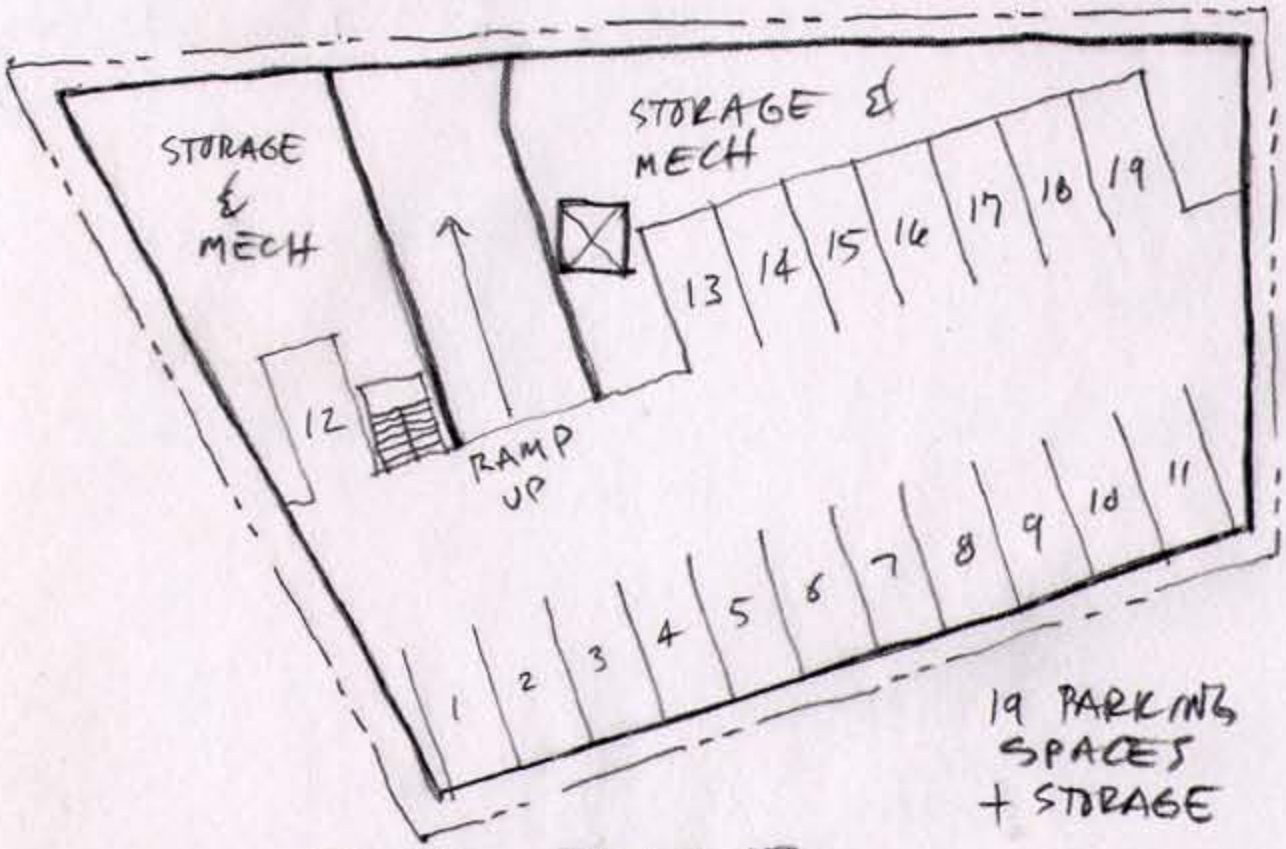
Hourly Space Heating Load (Btu)



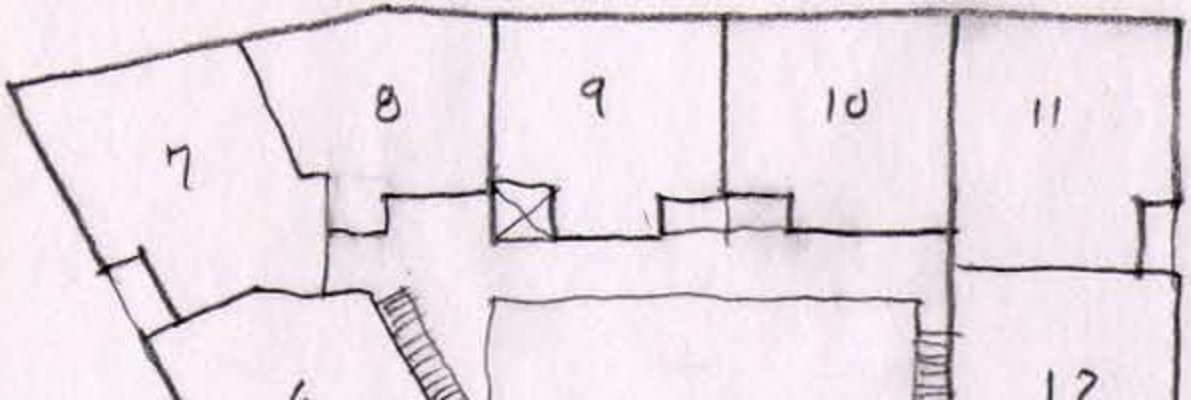
Mechanical Diagram

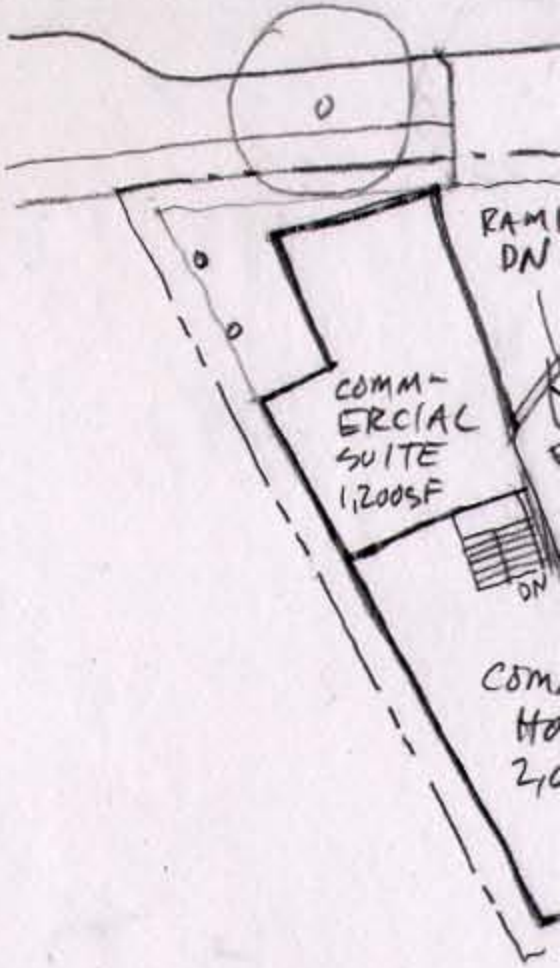
- Ground Source Loop
- Heat Pump
- Hot Water Tank
- ERV with Fan Coil
- Fresh Air via Earth Tube
- Low Velocity Supply



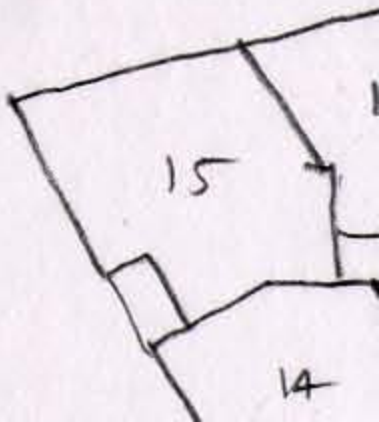


UNDERGROUND PARKING

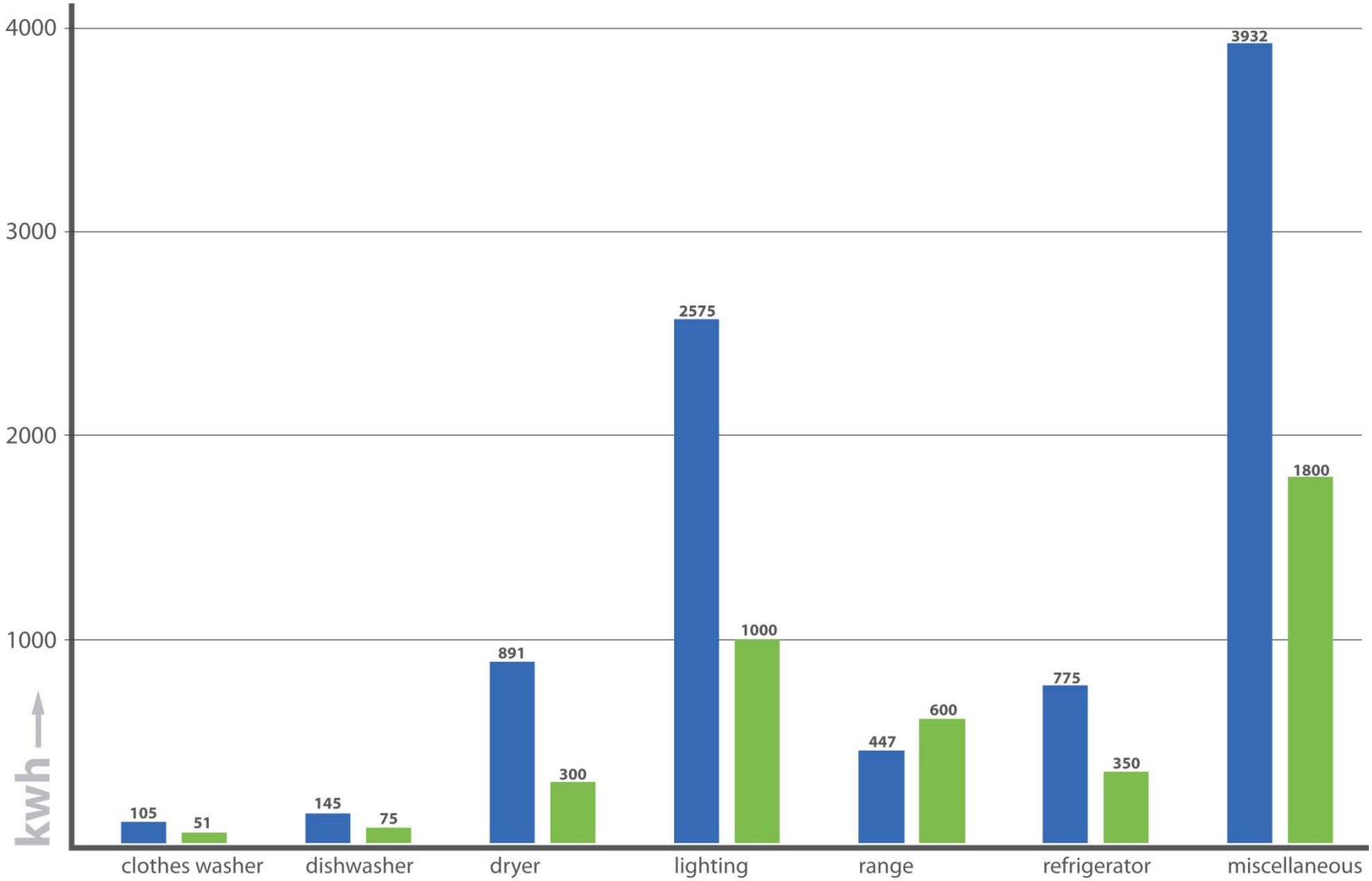




GROUND LE



Electric Loads

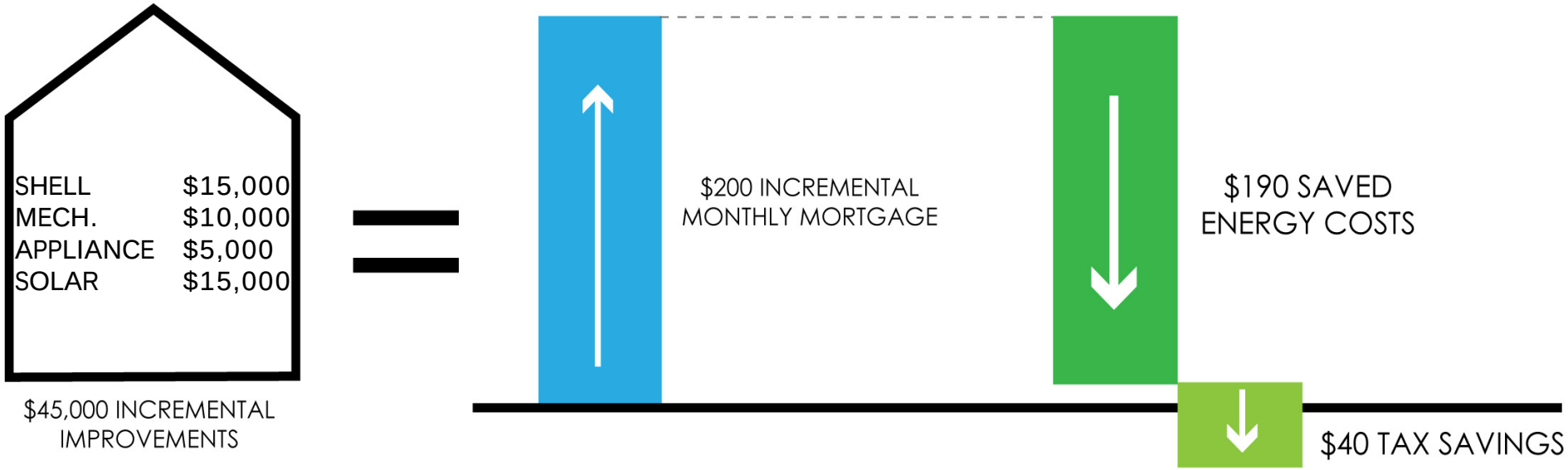


conventional house ..... **total: 8,890 kwh**

GEOS house ..... **total: 4,200 kwh**

Net-Zero Energy Homes That Are Cash Flow Positive

Reduced utility payments plus tax savings offset increased mortgage costs



System for Ventilating, Heating, Cooling, and Hot Water