**GOAL**

**DECARBONIZE PHILADELPHIA'S BUILDINGS**

**BUILD HOUSING EQUITY**

**IMPROVE HOUSING STOCK**

**INCREASE JOB OPPORTUNITIES**

**IMPROVE ENERGY EFFICIENCY**

**SUPPORT PHILADELPHIA CLIMATE GOALS**

**TRAIN SKILLED WORK FORCE**

**WHY**

**HEALTH**
- Air Quality
- Mental Wellness
- Asthma

**COMFORT**
- Quiet
- Draft-Free
- Even Temperature

**SAVINGS**
- Utility Bills
- Operation Costs
- Maintenance

**CLIMATE CHANGE**
- Pollution
- Resilience
- Durability

**WHAT IS A HEAT PUMP-SPLIT SYSTEM?**

A split system is a heat pump system that extracts heat from the air to heat and cool. It transfers heat through refrigerant lines that connect the exterior condensing unit to the interior wall unit(s).

**FEATURES**

- All Electric
- High Efficiency
- Environmental Friendly
- Unlimited Resources

**HEAT PUMP SYSTEMS**

- **Heat Pump Systems** emit significantly less greenhouse gas emissions than oil, propane, gas, and electric resistance heating systems in the U.S.

**MEDIAN ENERGY BURDEN**

<table>
<thead>
<tr>
<th>Source</th>
<th>Median Energy Burden</th>
<th>Median Low-Income Energy Burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI Internal Analysis</td>
<td>8.5%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

**EMISSIONS COMPARISON**

<table>
<thead>
<tr>
<th>Source</th>
<th>U.S. Average Residential Space Heating Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI Internal Analysis</td>
<td>869.1 lbCO2/MMBtu</td>
</tr>
<tr>
<td>American Council for an Energy-Efficient Economy</td>
<td>770.0 lbCO2/MMBtu</td>
</tr>
<tr>
<td>Energy Information Administration</td>
<td>1250.9 lbCO2/MMBtu</td>
</tr>
</tbody>
</table>

**WHAT IS A REFRIGERANT?**

- **Refrigerant** is a fluid used in a heat pump system to transfer heat between two points.

**DUCTWORK**

- **Ductwork** is used to distribute heated or cooled air throughout a building.

**REGULAR MAINTENANCE**

- Improves Performance
- Reduces Operating Costs
- Extends Equipment Life

**CLEAN THE GRID**

- **Renewables**
- **Nuclear**
- **Coal**
- **Crude Oil**
- **Natural Gas**
- **Electricity**

**GRID MIX**

- **Wind**
- **Solar**
- **Hydro**
- **Nuclear**
- **Coal**
- **Natural Gas**
- **Oil**
- **Imports**

**SCHEDULE SERVICE**

- **Heat Pump Systems** require significantly less energy to provide the same amount of heat. They can be over 100% efficient because they transfer heat instead of generating it.

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