No-cost Cooling Strategies

Keeping buildings cool can be challenging, especially in existing buildings. Here are some no-cost ways to keep spaces cooler:

• Minimize heat gain - close blinds or drapes during the day
• Use natural ventilation if available - keep windows closed during the day and open at night when it is cooler
• Use a fan to increase airflow in a room

Mechanical Cooling Strategies

Where mechanical cooling is the only option available for tenants to reside comfortably and safely in their suites or to provide comfort in refuge areas, the table below lists options in an ascending order of efficiency.

<table>
<thead>
<tr>
<th>Type of Cooling</th>
<th>Cost (Purchase and Maintenance)</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Fan Pedestal/Tower</td>
<td>$</td>
<td>Least efficient</td>
</tr>
<tr>
<td>Portable Air Conditioners</td>
<td>$$$</td>
<td></td>
</tr>
<tr>
<td>Window Mounted Air Conditioners</td>
<td>$$$</td>
<td></td>
</tr>
<tr>
<td>Packaged Terminal Air Conditioners (PTACs)</td>
<td>$$$$</td>
<td></td>
</tr>
<tr>
<td>Heat Pumps</td>
<td>$$$$$</td>
<td>Most efficient</td>
</tr>
<tr>
<td>Central Air Conditioning</td>
<td>$$$$$$</td>
<td></td>
</tr>
</tbody>
</table>

Pros and Cons

Mini Split Heat Pumps – Ductless
✓ Provides cost savings: offers both heating and cooling
✓ Very efficient
✓ Quiet operation
✓ Running costs are low
✓ Requires only a small hole in wall
× Expensive to purchase and install

Personal Fans – Pedestal/Tower
✓ Inexpensive to purchase
✓ Low running costs and energy usage
✓ Portable, adjustable airflow direction
✓ Provides temporary cooling when directed at the body
✓ Single room use only
× Does not lower room temperature

Packaged Terminal Air Conditioners (PTACs)
✓ Provides cost savings: offers both heating and cooling
• Single room use only
× Noisy operation
× Requires large hole in wall, creating infiltration and sound transmission channels
△ BCH design standards do not recommend using these systems

Window Mounted Air Conditioners
✓ Relatively low noise
× Electric costs are 7 times that of a fan
× Single room use only
× There are placement restrictions
× Limits window use, water drips outside, security concerns
× Could be a security risk
× Requires frequent filter maintenance
△ Mounting height should not exceed 5ft
! BCH design standards do not permit using these systems

Portable Air Conditioners
✓ Portable
✓ Installation is easy and inexpensive
× Electric costs = 5 times that of a fan
× Only works for smaller sized spaces
× Less efficient – operation discharges heat back into the room while cooling
× Noisy operation
× Has placement restrictions
× Could go missing
× Water drainage/management issues
× Requires frequent filter maintenance
△ 2 hose models are more efficient than single hosed models

Central Air Conditioning
✓ Quiet operation
• Cools entire suite/common areas
△ Not an option in existing buildings