OPTIMUM TEMPERATURE SET POINTS

When using air-conditioning in summer and winter, you should carefully consider comfort, health and energy efficiency. A range of adverse impacts result from incorrect use. The role of effective insulation can't be overstated for both comfort and energy efficiency.

ENERGY USE

Ideal outdoor temperature range

The use of air-conditioning isn't necessary when the outdoor temperature is within the ideal temperature range of 'springtime weather', between 21ºC and 25ºC. Humans are at optimal comfort within these temperature ranges.

Optional set points are: cooling 26^{0}C and heating 20^{0}C.

HEALTH

Adverse effects of too much

Over-using air-conditioning extracts humidity from the air in your home. Low humidity can have serious health effects. ***Minor:*** dry skin, chapped lips, dry nasal passages and a sore scratchy throat. ***Major:*** dry mucous membranes (increases the chance of contracting viruses and microbes that cause illness, most commonly, colds and flus).

What is overuse?

From a health perspective, over-use is simply having more aggressive temperature set points than required. As detailed in IMAGE 1, running the air-conditioner below 26ºC in summer and above 20ºC is winter is deemed over-use.

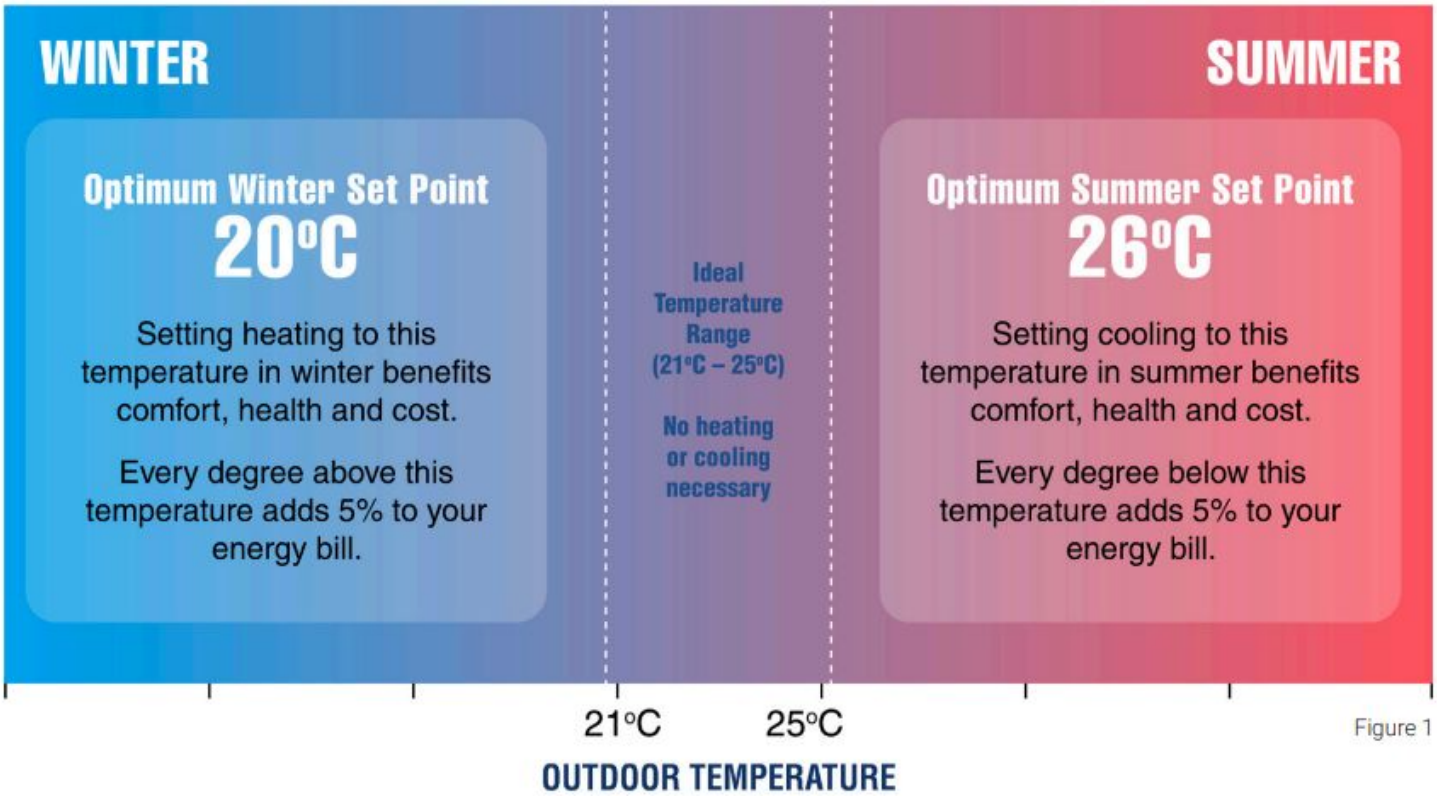

Figure 1

INEFFICIENT USE

There are a range of ways in which air-conditioners and electric heating can be used inefficiently:

1. DURING OPTIMAL OUTDOOR TEMPERATURES
   When it's between 21ºC and 25ºC outdoors, you don't need air-conditioning. Simply open a window.

2. NOT CONTAINING ROOMS
   It's inefficient to use air-conditioning with open windows or doors, or with bad air leaks or poor insulation.

3. USE IN ROOMS UNOCCUPIED
   Air-conditioning serves no purpose in rooms that have nobody in them.

4. USE WITH TOO AGGRESSIVE SET POINTS
   As IMAGE 1 shows, every 1ºC the wrong way adds five per cent to your power bill.