A PLAYBOOK FOR LOW CARBON LIFESTYLES

# Energy Efficient AC Practices

## Overview

Air conditioning has become an essential aspect of modern living in India. However, they can be energy-intensive and drive up greenhouse gas emissions. As heat stresses increase, reliance on ACs become more entrenched. Left unchecked, energy demand for comfort cooling could increase 20 fold by 2050 (Kalanki and Sachar, 2018).

The adoption of sustainable cooling like adopting energy efficient ACs, using optimal settings, and regular maintenance is necessary to reduce energy demand. While the Bureau of Energy Efficiency (BEE) has set standards, shifting people's practices requires a behavioural science approach.

The Low Carbon Lifestyles (LCL) programme by CSBC leverages behavioural science for sustainable lifestyle choices. Through a detailed literature review, diagnostic field work, and design ideation workshops, we identified behavioural pathways and interventions to increase energy efficient AC practices in urban India.

ACs account for
**60%**
of peak power demand in major Indian cities

India contributes
**5%**
of annual global emissions from room ACs

## Behavioural Barriers

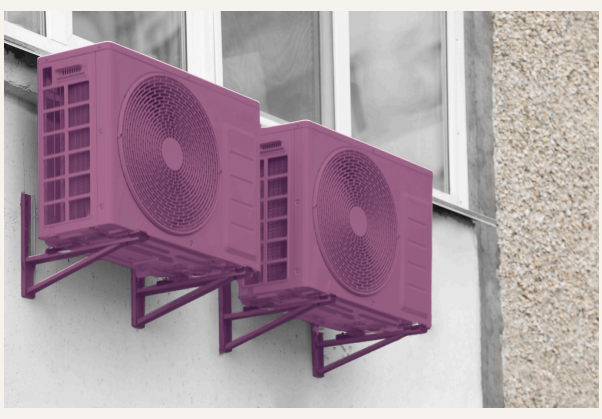
Target behaviour

Adoption of 5-star rated ACs, and optimal usage and regular maintenance of ACs

Target population

Urban households in middle- and high-income groups

- Low awareness of star ratings: people often don't fully understand what star ratings mean and the environmental benefits associated with it
- ACs considered overpriced: 5-star ACs are perceived as not worth the price, with limited added value compared to lower rated ACs
- High upfront costs of ACs: initial costs influence consumer purchasing decision and may deter people even if they want to purchase a 5-star AC
- Limited sales communication: sales agents may not effectively communicate the benefits of 5-star ACs, hindering consumer understanding
- Misconceptions about AC usage: people are unaware of optimal temperature settings (24°C) and some believe setting lower temperatures is better maintenance practice
- Limited awareness of maintenance: people lack an understanding of biannual servicing and cleaning practices



## Behavioural Pathways

| | BEHAVIOURAL PATHWAY | INTERVENTION IDEA |
|---|---|---|
|  | Display 5-star ACs prominently | Place 5-star ACs in prominent points like at the entrance or central points to make them more visible and encourage customer interest |
|  | Place messaging on AC remote controls | Incorporate stickers with clear messaging like "set your AC at 24°C" and intuitive symbols on remotes to facilitate user-friendly optimal AC usage |
|  | Frame efficient AC practices in terms of monetary benefits | Highlight cost saving opportunities such as how an increase in 1°C results in 6% energy savings or the monthly savings from buying a 5-star AC |
|  | Share '5-star' usage tips | Use social media to share consumer tips and tricks on how to make 2- or 3-star ACs perform better through maintenance and efficient usage practices |

## Insights From Pilots

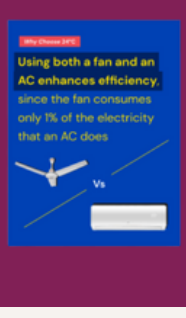
### Making Efficient AC Usage User-Friendly and Salient

- Placed stickers on remotes to anchor optimal temperature settings and link to monetary benefits


- Used WhatsApp groups to share rules of thumb and tips for energy efficient household practices

Select one or more steps you will take to save 6% or more in your next electricity bill

a.Set the AC at 24°C
b. Use the fan on 2 with the AC
c. Keep the doors & windows closed when the AC is on
d. Use Sleep/Timer Mode



#### Setting

Mira Bhayandar, Maharashtra
588 mid-income households

#### Approach

We made optimal AC usage more salient and appealing by placing stickers on remotes and using an economic framing for energy saving. We also used society heads and community WhatsApp groups to share polls, memes, and tips for energy saving practices.

#### Results

The pilot had a positive impact on reported optimal temperature setting although there was no change in frequency of AC use or timer mode. There was also an overall increase in electricity consumption due to the pilot coinciding with the summer months.