BEUC The European Consumer Organisation

INTRODUCING THE HEAT PUMP READINESS INDICATOR:

How to make Energy Performance Certificates fit for heat pumps

Executive Summary - August 2023

As part of meeting its climate objectives, Europe has committed to a 'Renovation Wave,' a massive undertaking to render Europe's ageing building stock more sustainable.

For this to be successful, consumers will need to be on board, as it will require complicated and expensive decisions like insulation and buying a heat pump. For consumers, knowing how far to go with thermal insulation, at what point it makes sense to shift to a green heating system can be a challenge.

To help answer these questions, BEUC commissioned a study entitled, 'Introducing the Heat Pump Readiness Indicator: How to make Energy Performance Certificates fit for heat pumps.' The study has five key main findings and recommendations for policymakers:

1. ENERGY COSTS DRIVING THE SWITCH

Heat pumps require a certain level of home insulation to work well. But in certain warmer climates, going above a certain level of insulation does not make consumers' homes anymore "heat pump ready". This means that consumers do not necessarily need to invest in a full home energy retrofit. In warmer countries, less extensive investment in insulation can already enable consumers to shift to a green heating system.

Recommendation: In certain warmer climates, it might make more sense financially to go for a lighter retrofit, even if that may not result in the highest energy efficient housing stock. As such, policymakers should assess whether it would actually be beneficial to insulate homes even further. The resilience of the electricity grid needs to be taken into account and should help determine the optimum level of insulation. Policymakers should ensure there are public support programmes in place to help consumers, combining both grants and technical advice.

2. IN COLDER CLIMATES, DEEP RETROFIT MAKES SENSE

Homes in cold climates – such as the Alps – are generally too poorly-insulated at the moment to be considered ready for a heat pump as they require a certain level of energy efficiency to be able to work effectively. Homes in colder climates will require deeper insulation to keep consumers warm during the winter.

Recommendation: Countries in colder climates should opt for deep retrofit of their housing stock. It offers the best thermal comfort, and it will make consumers' homes heat pump ready. Countries in the Alpine climate zone (Austria, France, Italy, Germany, Slovenia) should collaborate and exchange on best practices to tackle this challenge and define how they will engage consumers. They could have a look at Scandinavia, where the housing stock is so efficient that it is already heat pump and alternatively low temperature district heating that run on renewables ready!

3. INSULATE TO KEEP COOL? PRIORITISE SHADING TO PREVENT OVER-HEATING

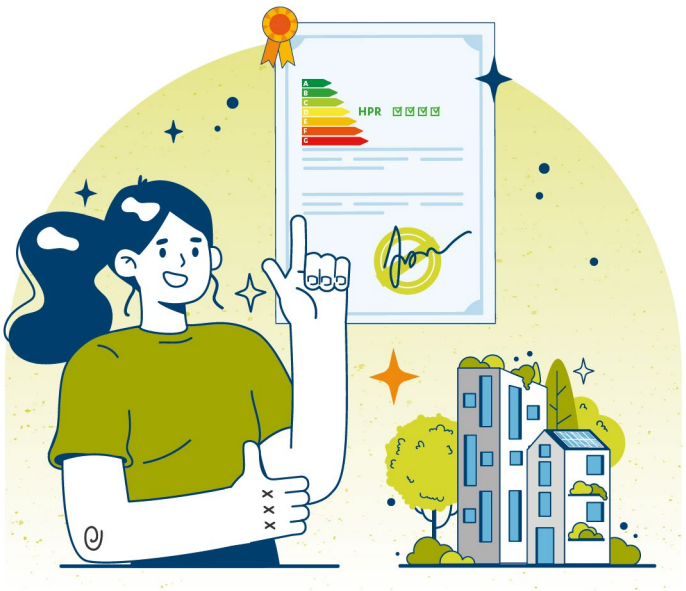
Homes in warmer countries like Spain – which have more temperate winters – would only need moderate insulation to be heat pump ready. In these countries, targeted insulation efforts would be most beneficial to help consumers stay cool during the summer. But –first and foremost, it needs to be combined with shading to prevent over-heatingsolar intake.

Recommendation: What is relevant for heating might not be for cooling, which is set to be an increasing source of electricity consumption in years to come as temperatures rise. In warmer countries, insulation should primarily be about helping consumers to beat the heat. And programmes to roll out shading in cities where most houses don't have shutters, like Brussels, is becoming more urgent.

4. MAKING ENERGY PERFORMANCE CERTIFICATES FIT FOR THE 21ST CENTURY

Energy Performance Certificates (EPCs) today already have the majority of the parameters needed to define a home's readiness for a heat pump. However, in many European countries they still do not give consumers the clear signals they need to know when it makes sense to invest.

Recommendation: To know when it makes sense to opt for a low-carbon, low temperature heating system, consumers need EPCs that include a few more parameters that put the insulation of their home – and the potential for shifting to a heat pump or the connection to district heating, for example – front and centre.



5. MORE FLEXIBILITY MEANS MORE POTENTIAL BILL SAVINGS

Consumers who are able and ready to have their heat pump running flexibly (i.e., willing to adapt their habits to heat their home during the night when there is less demand for electricity, for example) will be able to benefit from both steady thermal comfort and dynamic electricity contracts, which can offer savings.

Recommendation: Policymakers should ensure that consumers have access to contracts rewarding them for their flexible electricity consumption, such as dynamic pricing contracts.

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