

# What is Heat Recovery?

**Heat Recovery is the process of transferring thermal energy from stale, moist, or warm air being extracted from a building to the fresh incoming air via a heat exchanger. This practice improves energy efficiency by reducing heating demands while maintaining indoor air quality.**

In the UK residential sector, Heat Recovery is commonly implemented through Mechanical Ventilation with Heat Recovery (MVHR) systems. These systems are particularly effective in well-insulated homes, such as those built to Passivhaus standards or retrofitted to meet Part L of the Building Regulations (Conservation of Fuel and Power).

## **Practical Example:**

In a retrofit project, an MVHR system is installed in a Victorian terrace house to address dampness and improve ventilation. The system extracts warm, moist air from kitchens and bathrooms, transfers its heat to incoming fresh air, and distributes it to living spaces. This reduces the need for additional heating and prevents condensation issues.

## **Synonyms:**

- Heat Exchange Ventilation
- MVHR (Mechanical Ventilation with Heat Recovery)

## **Related Terms:**

1. **Heat Exchanger:** A device within an MVHR system that facilitates the transfer of heat between outgoing and incoming air streams.
2. **Air Tightness:** The measure of how well a building prevents uncontrolled air leakage, critical for the efficiency of Heat Recovery systems.
3. **Part F (Ventilation):** The Building Regulations document outlining requirements for ventilation in UK homes.
4. **Passivhaus:** A rigorous energy-efficient building standard that often incorporates Heat Recovery systems.
5. **Condensation Control:** A key benefit of Heat Recovery systems, reducing moisture build-up in homes.
6. **Energy Performance Certificate (EPC):** A document that rates a building's energy efficiency, often improved by Heat Recovery systems.
7. **Retrofit:** The process of upgrading existing buildings to improve energy efficiency, where Heat Recovery systems are increasingly used.