

# Decarbonising Assets

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## Path to Net Zero

- Energy accounts for nearly 60% of GHG emissions in buildings
- Deliver energy savings in buildings by 25% by 2030
- Energy efficiency first
- Replace fossil fuels with renewable energy

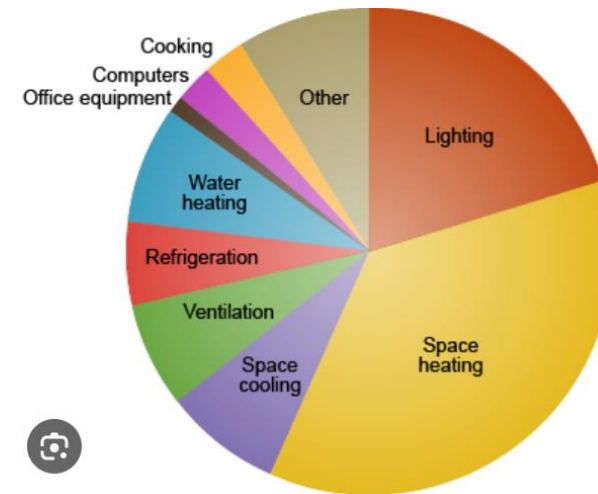


# Net zero across the estate

- Own activities or wider council area
- Gathering data on buildings
- Benchmarking activities
- Opportunities for reducing energy,
- Energy efficiency, renewables, heat networks

# Consider building's energy consumption

- Building fabric
- Heating, ventilation & controls
- Power and lighting
- Renewable energy



# Building fabric

- Walls,
  - Cavity wall insulation
  - External wall insulation
  - Internal wall insulation
- Roof
  - Insulation levels
  - Opportunities to upgrade
- Windows
  - Single, double, triple



# Heating system & controls

- Boiler
  - Age, fuel, size
- Controls
  - Time and temperature
  - Number of zones
- Alternatives
  - Renewable gas
  - Heat pump
  - Biofuels



# Lighting survey

- Substantial contribution to energy within a building
- Upgrade fluorescent to LED
- Room by room lighting survey
- Opportunities for controls / sensors
- Calculation of savings in kWh, £, CO<sub>2</sub>

# Energy Consumption

- Electricity
- Natural gas
- Oil
- LPG
- Renewables
- Display energy certificates

**Display Energy Certificate** Northern Ireland  
How efficiently is this building being used?

Any Building  
Any Street  
**ANY TOWN**  
BTX XXX

Certificate Reference Number:  
XXXX-XXXX-XXXX-XXXX-XXXX

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information on the Government's website [www.dfor.gov.uk](http://www.dfor.gov.uk).

**Energy Performance Operational Rating**  
This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed, they represent comparative energy efficiency. 100 would be typical for this kind of building.

**Total CO<sub>2</sub> Emissions**  
This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO<sub>2</sub>.

**More energy efficient**

A	0-25
B	26-50
C	51-75
D	76-100
E	101-125
F	126-150
G	Over 150

96 ← 100 would be typical

**Less energy efficient**

**Previous Operational Ratings**  
This tells you how efficiently energy has been used in this building over the last three accounting periods.

Accounting Period	Operational Rating
05-2013	96
05-2014	96
05-2015	96

**Technical Information**  
This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Heat heating fuel: Biomass  
Building envelope: Mixed-mode with Mechanical Ventilation  
Total useful floor area (m<sup>2</sup>): 5450  
Assess Rating: 43

	Heating	Electricity
Annual Energy Use (kWh/m <sup>2</sup> /year)	96	127
Typical Energy Use (kWh/m <sup>2</sup> /year)	210	70
Energy from renewables	42.5%	2%

**Administrative Information**  
This is a Display Energy Certificate as defined in SI (SI2008/170) as amended.

Assessment Software: DCLG OREC v3.6.2  
Property Reference: XXXXXXXX  
Assessor Name: Any assessor  
Assessor Number: XXXXXX  
Accreditation Scheme: Any scheme  
Employer/Trading Name: Any company  
Employee/Trading Address: Any address  
Issue Date: xx-xx-xxxx  
Nomination Date: xx-xx-xxxx  
Valid Until: xx-xx-xxxx  
Related Party Disclosures: No related party  
Recommendations for improving the energy efficiency of the building are contained in the accompanying Advisory Report.



# NI Gas Network



- £1bn network of pipework
- Estimate 430k properties connected 2030
- 15% renewables by 2030
- 75% renewable by 2040
- 100% renewables by 2050

## NI Gas Network Pathway to Net- Zero

Northern Ireland's five Gas Network Operators have launched their joint plan to fully decarbonise the region's gas network by 2050.

# **NEW MUNICIPALISM**

Delivering for local people and local economies