

Lincolnshire Police Carbon Reduction Plan

for

Buildings

2023/24



Introduction

Lincolnshire Police is committed to serving its community with a sustainable approach.

Lincolnshire, the second biggest county in England, has a largely rural community with a population of 775,000 in an area of 2,687 square miles.

To provide policing services at county and community levels the Force employs 1,730 officers and support staff based at 37 buildings across the county.

The Police and Crime Commissioner, Marc Jones, is passionate that the Force is visible in the community and that citizens of Lincolnshire have easy access to the services it provides.

The maintenance of strategically located police stations is seen as a critical element in fighting crime.

This Carbon Reduction Plan deals exclusively with the carbon emissions emanating from the energy consumed by Lincolnshire Police's portfolio of buildings and radio transmitter sites.

Commitment to achieving Net Zero

In line with Government policy, Lincolnshire Police is committed to achieving Net Zero Emissions by 2050.

As a public body the Force believes in the importance of mitigating Climate Change and promoting sustainability.

The Force will take guidance from and embrace HM Government's publication "Net Zero Strategy: Building Back Greener" Note 1

As a key strategy, the Force aims to decarbonise the heating of its buildings by moving away from fossil fuels to electrically-powered heating systems, notably heat pumps.

As a consequence, should the decarbonisation of the electricity grid be achieved earlier than 2050 then Lincolnshire Police will be able to bring forward the attainment of Net Zero.

Note 1: Net Zero Strategy: Building Back Greener. October 2021 ISBN 978-1-5286-2938-6

Baseline Emissions Footprint and Progress

Baseline emissions are a record of the greenhouse gases that have been produced in the past and prior to the introduction of any strategies to reduce emissions.

Baseline emissions are the reference point against which emissions reduction can be measured.

The Baseline Emissions for Lincolnshire Police buildings are those recorded in 2008/2009.

The Baseline values are presented below with annual updates to the most recent year of 01 April 2021 to 31 March 2022.

Scope 1 Emissions refer to fossil fuels directly consumed by buildings including natural gas and heating oil.

Scope 2 Emissions refer to electricity imported from the National Grid.

<u>Year</u>	<u>Scope 1 Emissions Tonnes CO₂e</u>	<u>Scope 2 Emissions Tonnes CO₂e</u>	<u>Total Emissions Tonnes CO₂e</u>	<u>% Reduction from the Baseline Emissions.</u>
Baseline 2008/2009	1,419	3,404	4,823	0
2009/2010	1,349	3,284	4,633	Minus 3.9%
2010/2011	1,320	3,411	4,732	Minus 1.9%
2011/2012	1,186	3,380	4,567	Minus 9.5%
2012/2013	1,403	3,636	5,038	Plus 4.5%
2013/2014	1,243	3,365	4,608	Minus 4.5%
2014/2015	1,109	2,629	3,738	Minus 22.5%
2015/2016	1,065	2,160	3,225	Minus 33.1%
2016/2017	1,023	1,682	2,706	Minus 43.9%
2017/2018	1,052	1,606	2,658	Minus 44.9%
2018/2019	957	1,399	2,356	Minus 51.2%
2019/2020	969	1,056	2,025	Minus 58.0%
2020/2021	832	852	1,683	Minus 65.1%
Current Year 2021/2022	857	742	1,599	Minus 66.8%

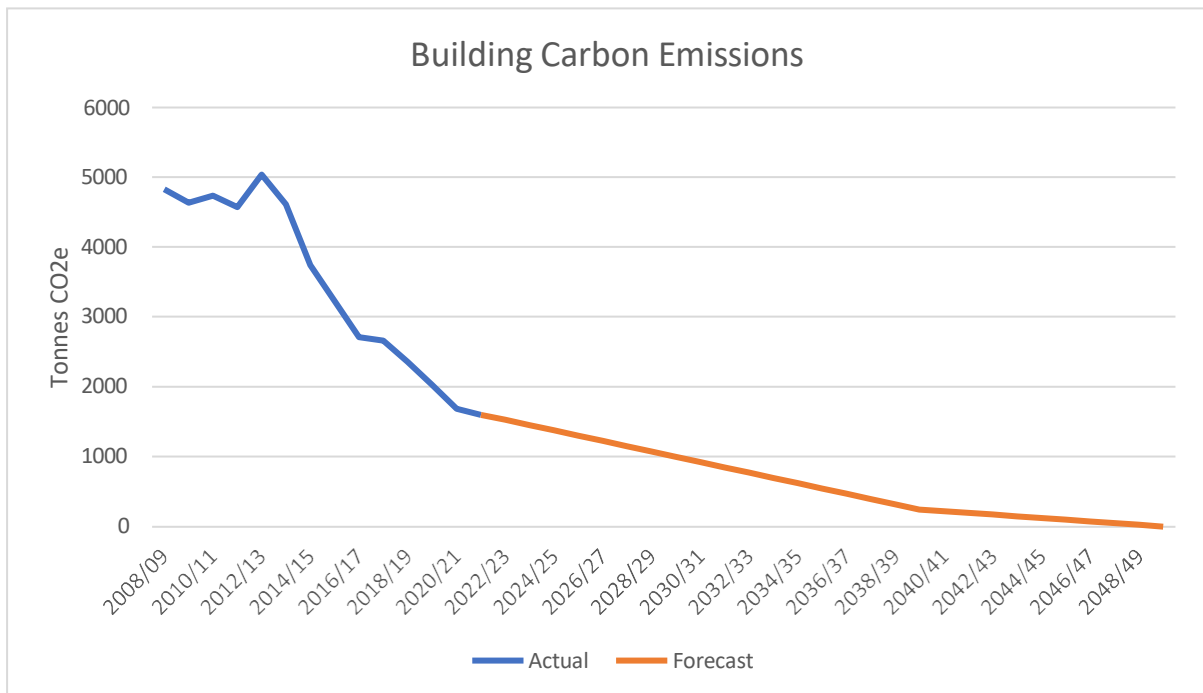
The energy consumption of the Force's buildings has reduced by 40% over the period.

The reduction of building carbon emissions by 67% from the 2008/2009 Baseline is a tremendous achievement and has been delivered by a number of initiatives including:

- Energy-efficient adiabatic cooling to the Force's IT Data Centre.
- Upgrading of buildings with added insulation and double-glazing.
- Installation of Solar Photovoltaic Panels generating electricity to six major sites. Solar generated electricity now accounts for approximately 5% of the Force's electricity consumption.
- Extensive installation of LED Lighting Technology throughout the building stock.
- Hybrid working arrangements for support staff including home working supported by video conferencing.
- 2021/2022 emissions do not reflect the recent installation of air-source heat pumps to two buildings previously relying on heating oil.

Emissions Reduction Targets

The following graph indicates the progress on eliminating carbon emissions to date and the projection until 2050.



Lincolnshire Police has set the following interim targets on the roadmap to Net Zero for buildings by 2050.

- Ending the consumption of heating oil by 2026.
- 80% reduction in emissions from 2008/2009 Baseline by 2030.
- Elimination of fossil fuels for heating buildings by 2040.
- 95% reduction in emissions from 2008/2009 Baseline by 2040.

Carbon Reduction Strategies

The Force has committed itself to the following hierarchy of carbon reduction strategies:

1. Energy Management to avoid waste.
2. Passive means of energy conservation such as improving the thermal efficiency and air tightness of buildings.
3. Improving the efficiency of all energy consuming plant including heating and lighting.
4. Eliminating the consumption of fossil fuels. Moving from natural gas and oil- fired boilers to electrically-powered heating systems, notably heat pumps.
5. Investing in existing renewable energy technologies such as electricity generation from Solar Photovoltaic Panels.
6. Participating in low carbon Heat Networks such as district heating.

7. Where feasible embracing new renewable energy technologies such as Hydrogen power and.

The challenges to Lincolnshire Police of achieving Net Zero include:

1. The capacity of electricity supplies. Particularly on larger sites the installed electricity capacity is limited and inadequate to power large scale heat pumps which could replace gas-fired boilers.
2. The competing demands of heat pumps and charging electric vehicles on limited electrical supplies.
3. Limited funds for capital investment.
4. The decarbonisation of the National Grid

Three-Year Development Plan

Building Development Plans are programmed on a three-year basis and the next plan commencing 2023 is currently in preparation. The Force's Estate Management Team have completed a carbon footprint of the building portfolio to guide the Force's direction in respect of reducing carbon emissions.

It is anticipated that it will feature the following actions consistent with the hierarchies of carbon reduction strategies detailed earlier:

- Develop the Energy Management Strategy.
- Improve monitoring of energy consumption throughout the portfolio of buildings.
- Improve thermal insulation and air-tightness of buildings.
- Install "Smart" heating controls to save energy and allow remote monitoring.
- Eliminate the use of heating oil on the remaining two sites consuming this fuel.
- Replace end-of-life gas fired boilers with air-source heat pumps.
- Select two large sites for the installation of an air-source heat pumps to support existing gas-fired boilers and provide the majority of space heating demands at lower operational cost.
- Add further Solar Photovoltaic installations.

Asset improvements delivering lower carbon emissions will not be at the cost of operational costs.

The Future

The Force commits to achieving its annual carbon reduction targets and will review progress on an annual basis.

Opportunities for binging forward carbon savings will be explored where economically feasible.

The next Three-Year Building Development Plan scheduled to commence in 2026 will re-assess the current hierarchy of strategies and reprioritise for the period leading to 2030 in order to meet the target of an 80% reduction in carbon emissions.