

Newport City Council Carbon Management Plan Progress Report

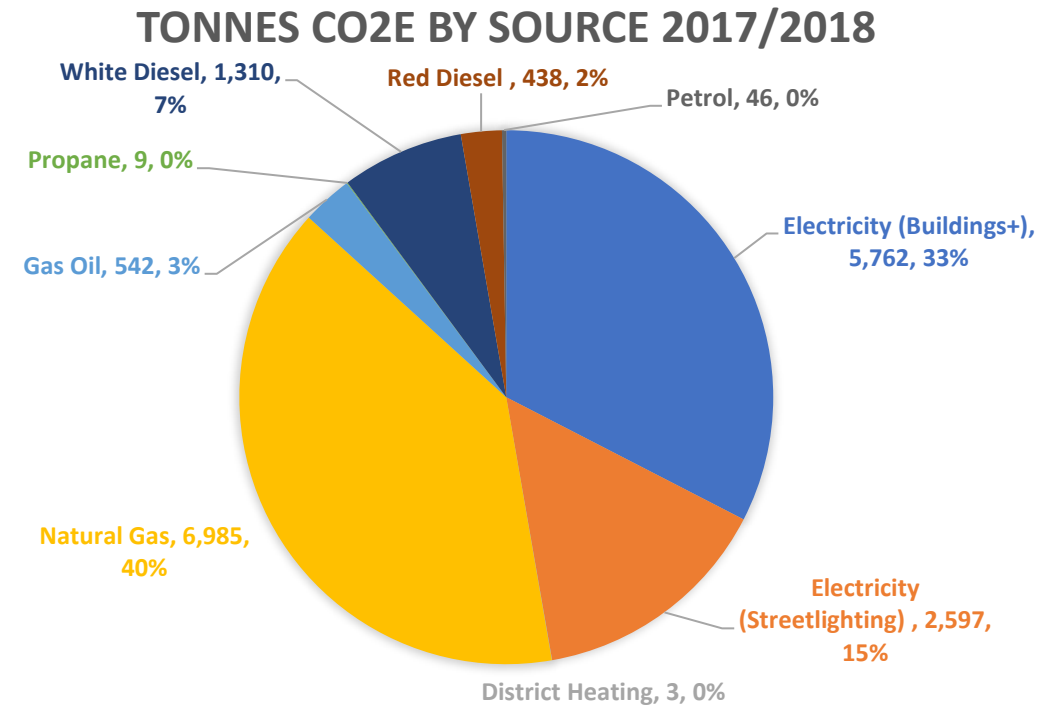
Ross Cudlipp, Carbon Reduction Manager

Introduction

- NCC's organisational Carbon Management Plan (CMP) monitors and targets a reduction in emissions from electricity, gas and transport fuel (Scope 1 and Scope 2 emissions).
- The CMP, will now sit below the Council's Climate Change Strategy, which covers our wider organisational climate impact (including Scopes, 1, 2 and 3).
- The baseline year for the plan is 2017/18 and the monitoring covers the four financial years from 2018/19 to 2021/2022.
- The plan sits within the portfolio of the Cabinet Member for Sustainable Development.
- Progress against the plan is delivered by the Carbon Reduction Manager and Carbon Reduction Team.

2017/2018 - Baseline

| Newport City Council - Carbon Emissions 2017/18 | | | | | |
|---|-----------------|------------|---------------|---------------------------------|--------------------------|
| Fuel | Emissions Scope | Value | Unit | Tonnes CO ₂ e / Unit | tonnes CO ₂ e |
| Electricity (Buildings+) | 2 | 16,389,656 | kWh | 0.000352 | 5,762 |
| Electricity (Streetlighting) | 2 | 7,387,918 | kWh | 0.000352 | 2,597 |
| District Heating | 2 | 213,432 | kWh | 0.000015 | 3 |
| Natural Gas | 1 | 37,926,348 | kWh | 0.000184 | 6,985 |
| Gas Oil | 1 | 183,492 | Litres | 0.002954 | 542 |
| Propane | 1 | 5,823 | Litres | 0.001508 | 9 |
| White Diesel | 1 | 503,958 | Litres | 0.002600 | 1,310 |
| Red Diesel | 1 | 148,136 | Litres | 0.002954 | 438 |
| Petrol | 1 | 20799.62 | Litres | 0.002198 | 46 |
| | | | Scope 1 Total | | 9,329 |
| | | | Scope 2 Total | | 8,363 |
| | | | Grand Total | | 17,691 |



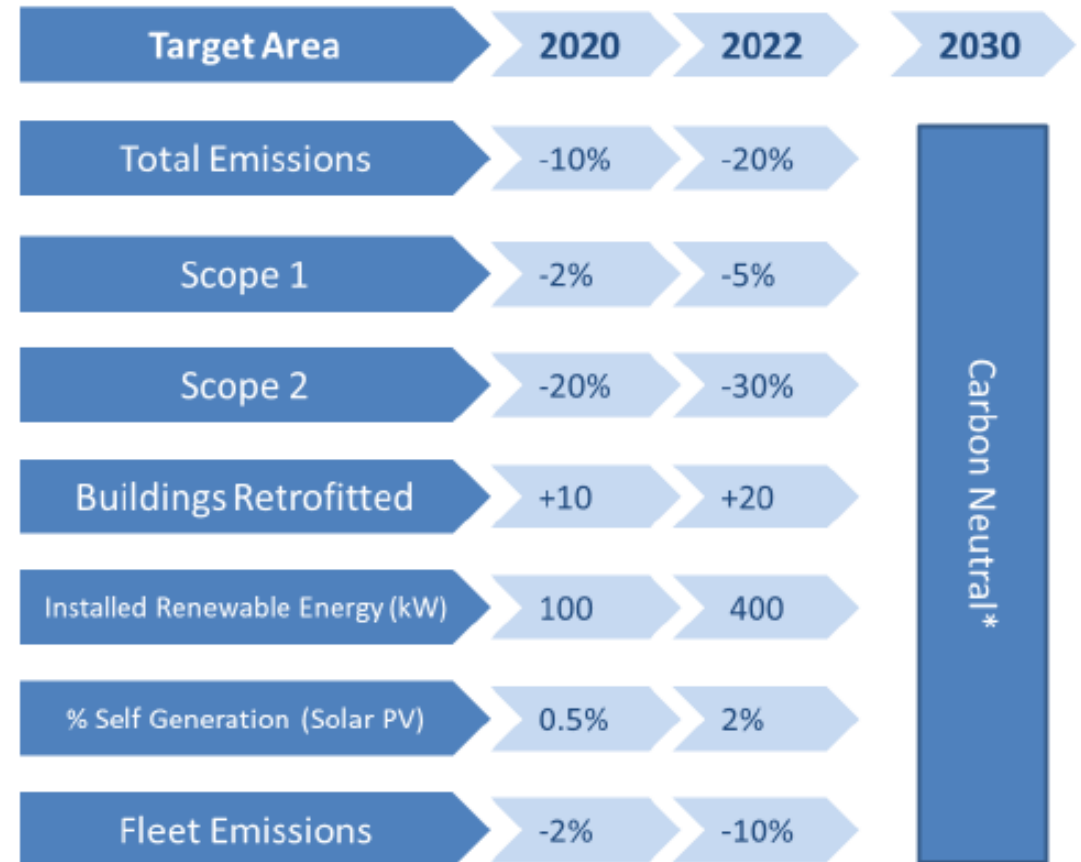
Baseline – 17,691 tonnes of CO₂

Vision, Mission & Objectives – Progress

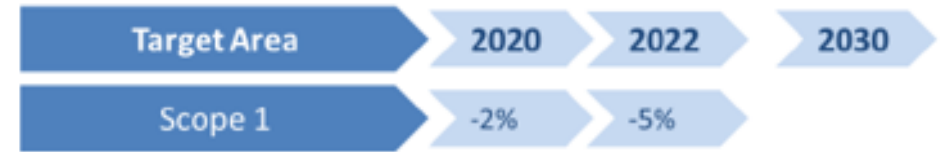
- **Vision** – to be net carbon neutral by 2030.
 - Progress towards this vision is assessed via carbon reduction targets, covered in this presentation.
- **Mission** – To be a globally responsible organisation by decarbonising our buildings, fleet and operations while reducing our costs and environmental impact for the benefit of future generations.
 - Progress on decarbonisation is reducing our environmental impact, and in most areas reducing our costs, however the decarbonisation of heating will increase our cost in the short term
- **Objectives** – There are 5 objectives of the plan
 - Progress against objectives will be reviewed towards the end of this presentation

Carbon Reduction Targets

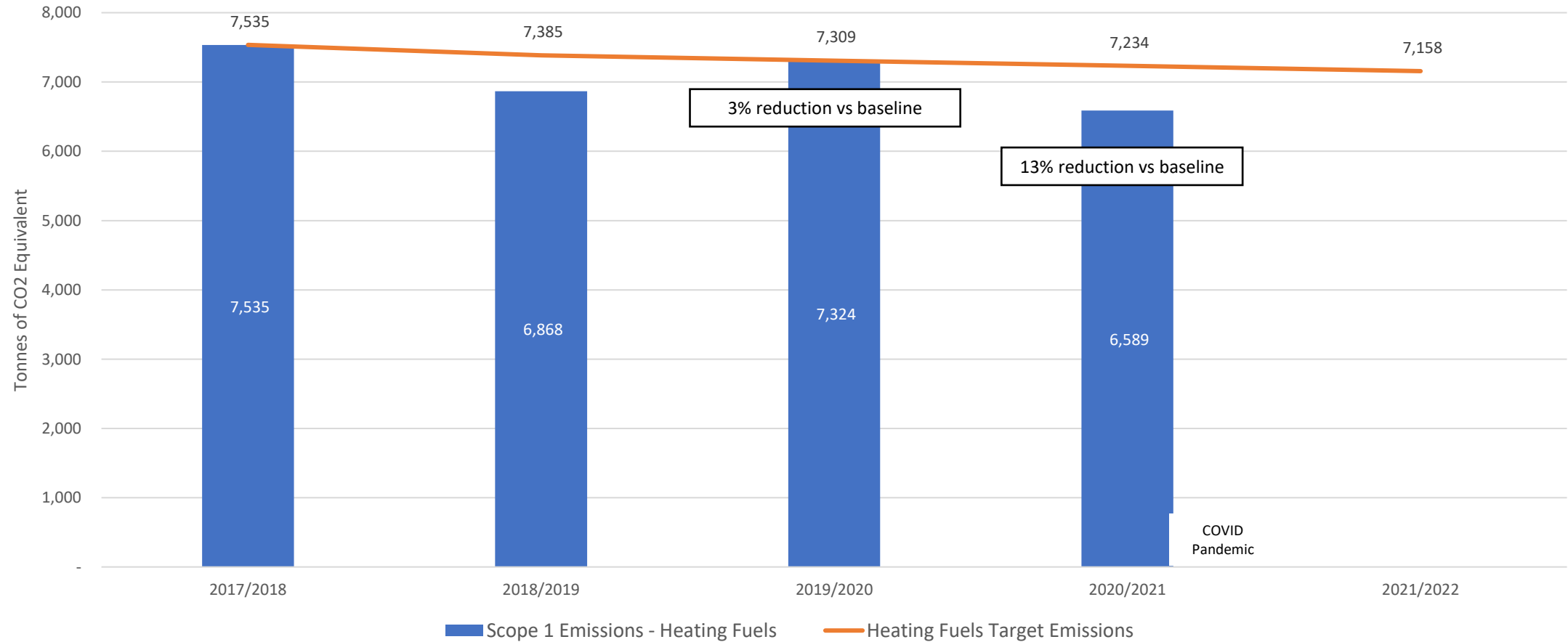
- The ultimate target of the CMP is for the Council to achieve Carbon Neutrality by 2030.
- Plans will run from 2018-2022, 2022-2026 and 2026 until 2030.
- The first plan contains the interim targets shown on the right.
- This presentation provides a progress update against the individual targets and the target of carbon neutral 2030.



Scope 1 Emissions – Heating Fuels

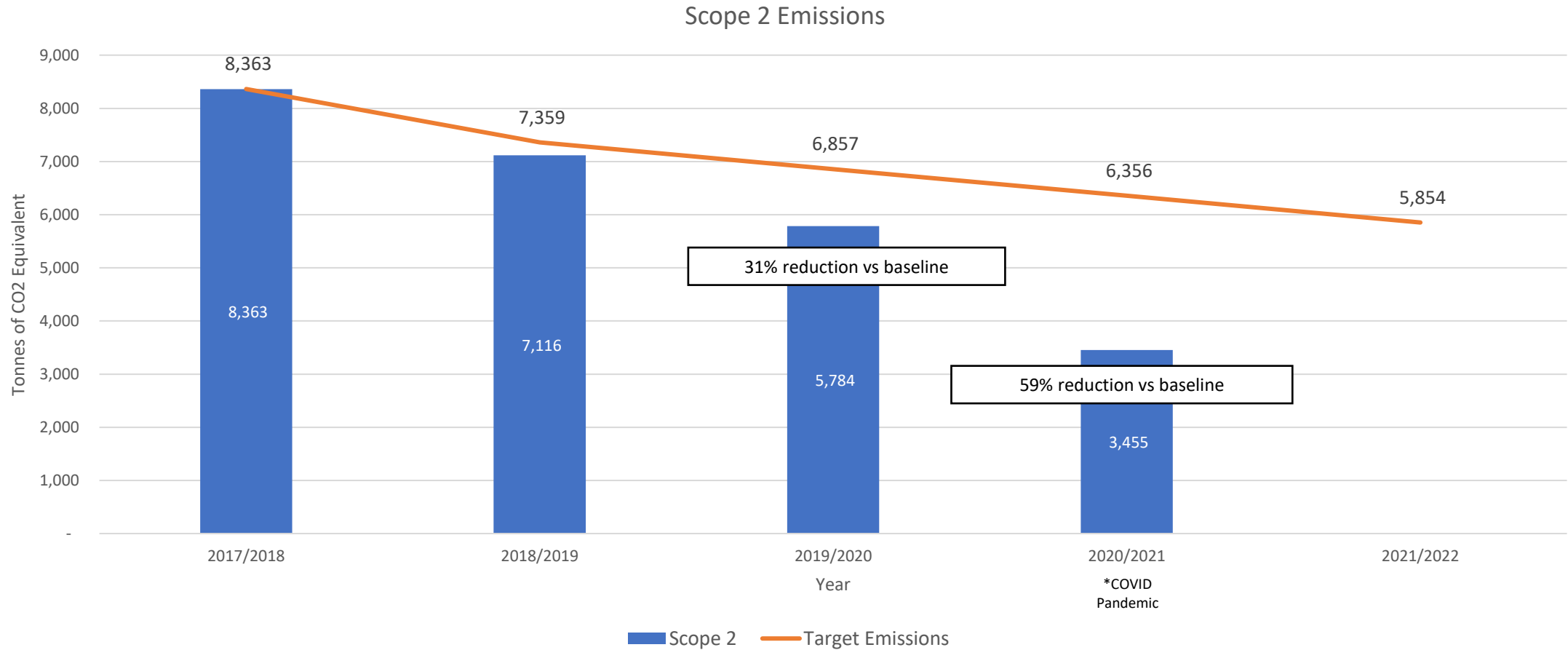
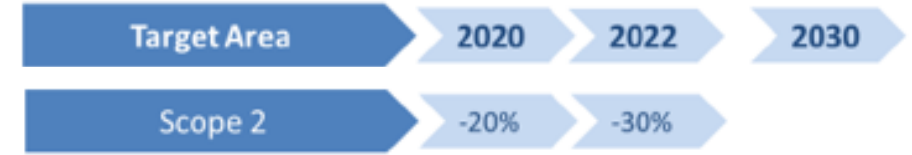


Scope 1 - Heating Fuels



*Seasonal variability is a factor in figures related to heating

Scope 2 Emissions – Electricity & District Heat



Buildings Retrofitted

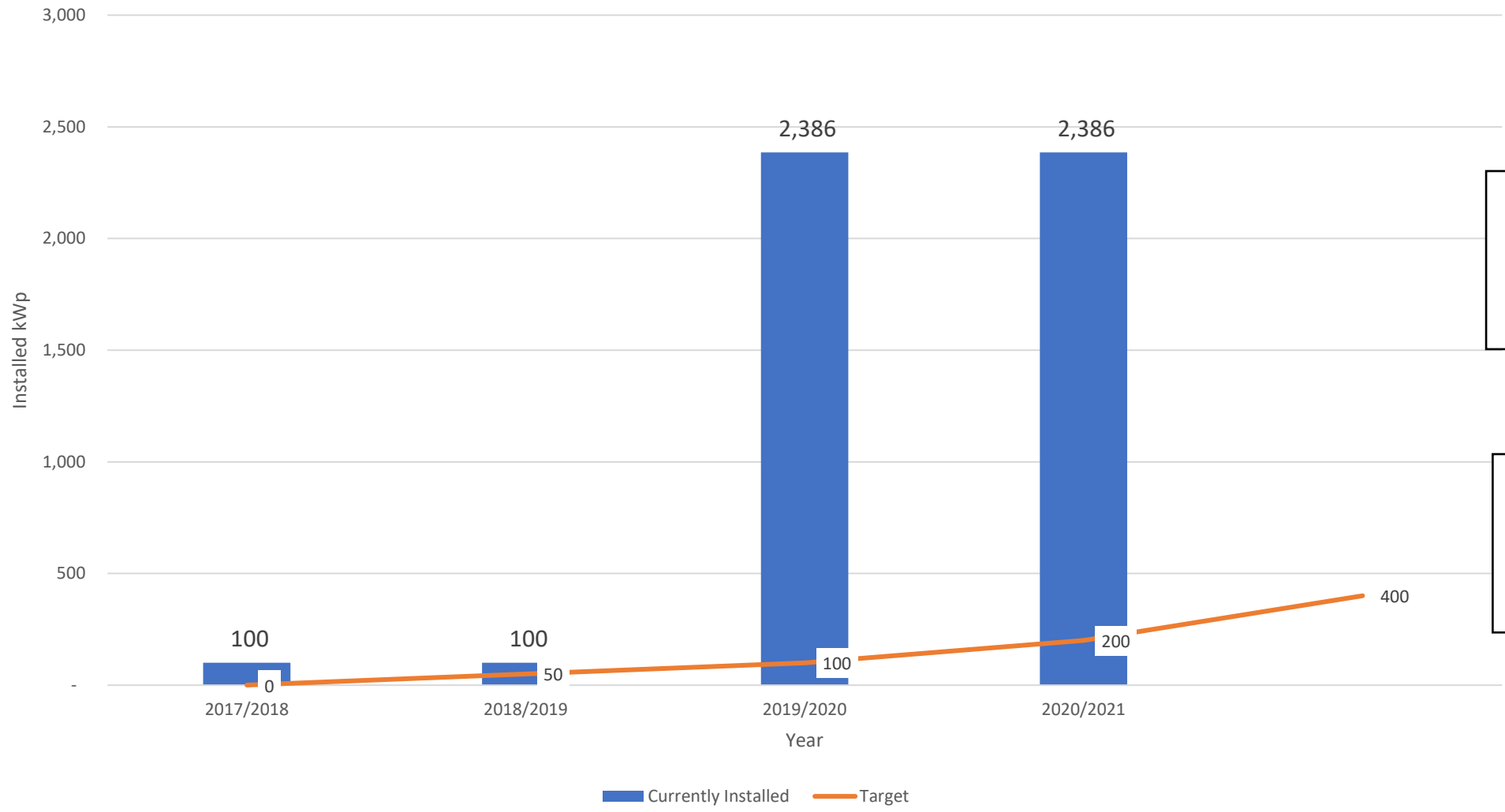
- The Council's main mechanism for delivering building retrofits will be the RE:Fit Energy Efficiency Framework.
- Due to other priorities which delivered greater carbon savings for lower cost and resource, such as changing to 100% LED streetlighting and community solar PV, commencement of the RE:Fit programme was put back to 2021.
- In the next iteration of the plan, more granular targets will be added, including: number of buildings with full LED lighting, Solar PV, Heat Pumps and other measures.

*Depending on the definition of building retrofit, which needs refinement.

Solar PV Electricity Generation



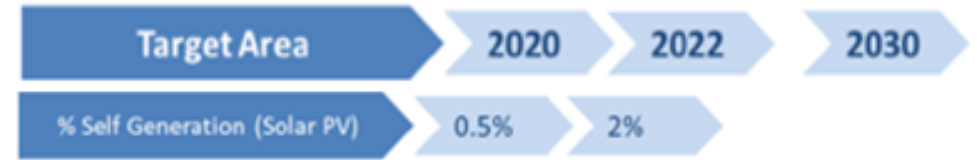
Current Installed kWp Capacity



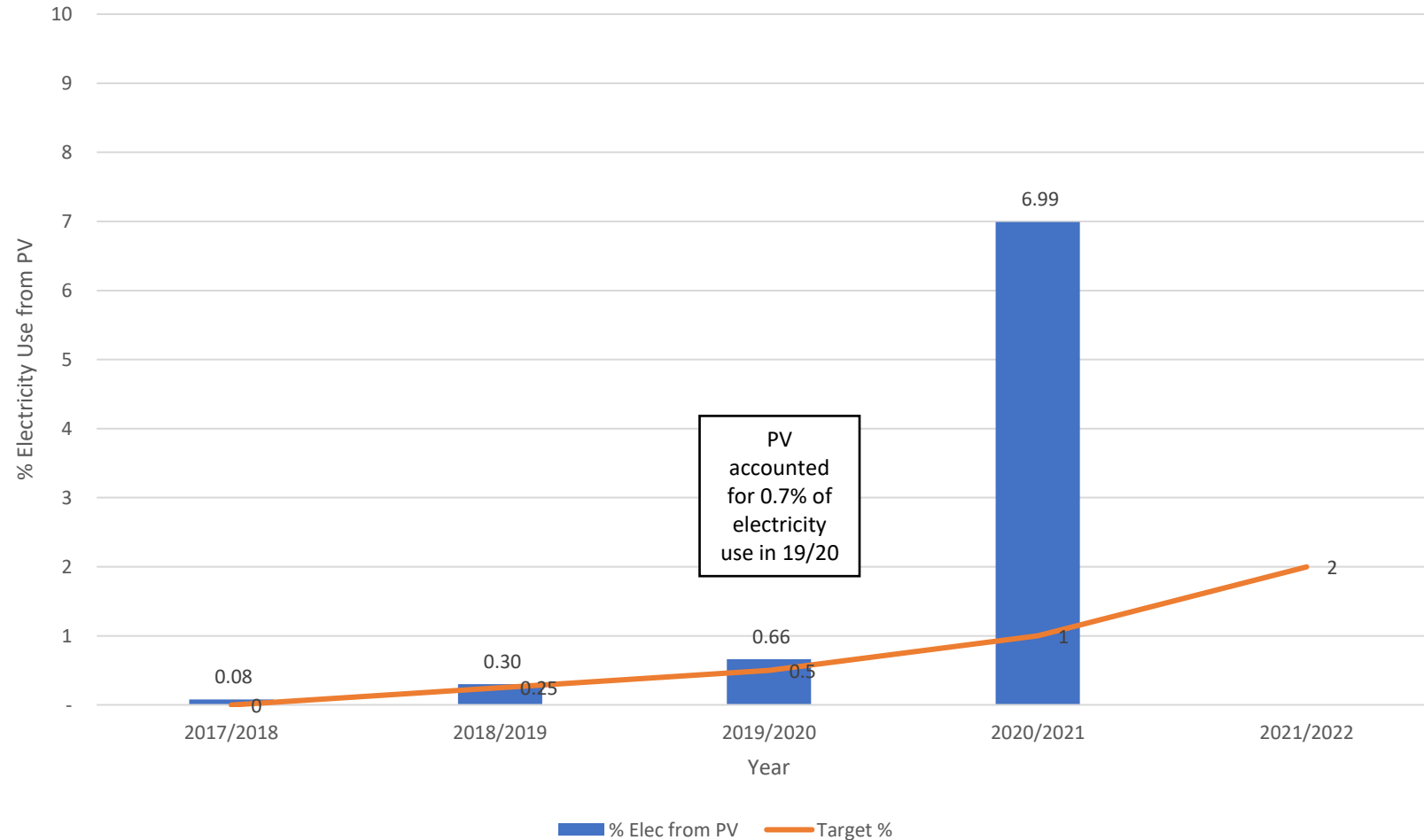
The 2022 target of 400kW was exceeded in 2019, the value us currently 2,386kW

Further PV installations are planned for 2022 and beyond.

Solar PV Electricity Generation



% Electricity Use from PV



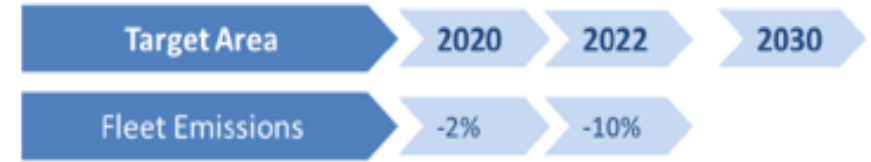
This target relates to the proportion of electricity consumed on our sites which comes directly from our roof mounted solar panels.

We also export zero carbon energy which benefits the city.

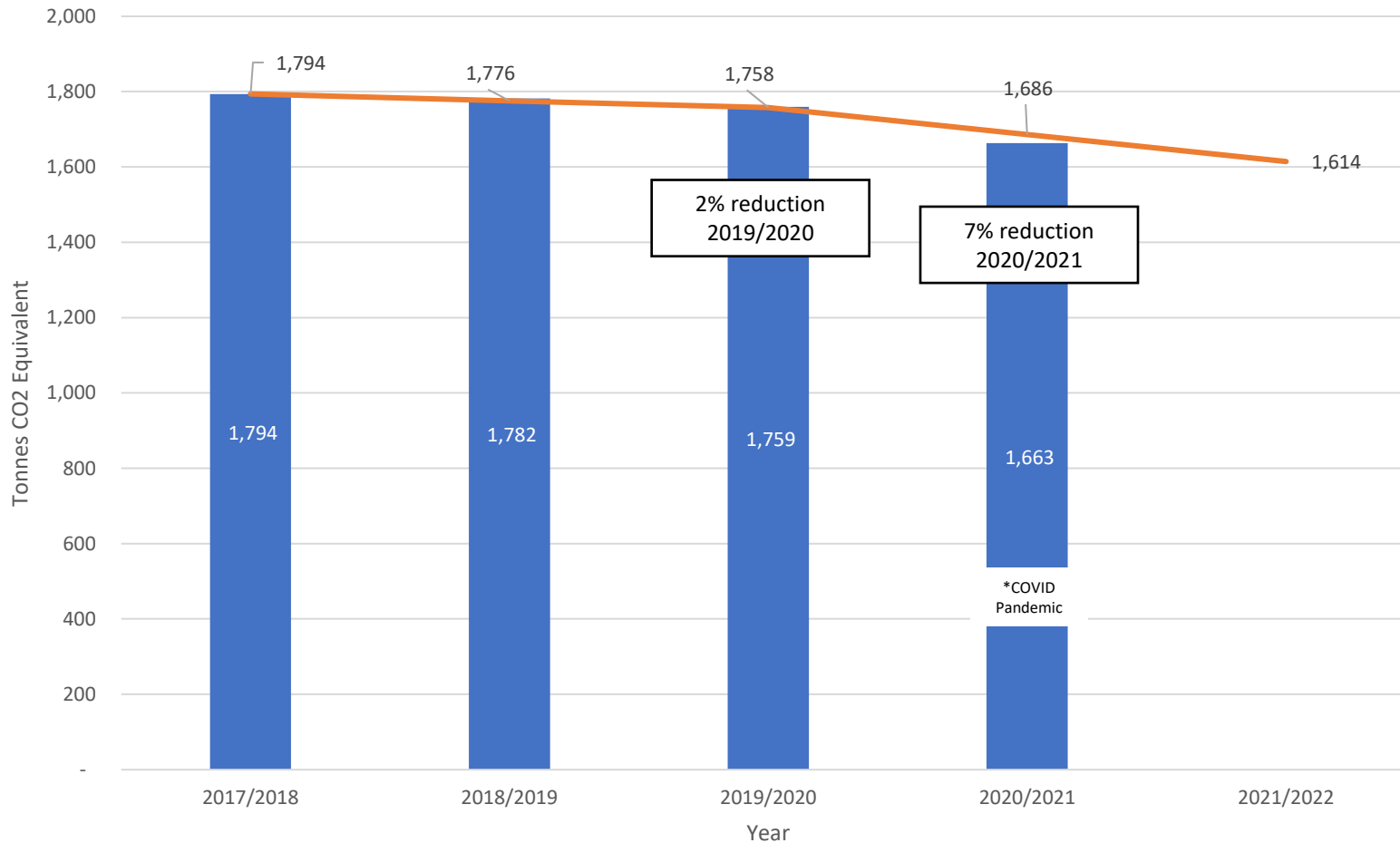
7% of our electricity came from solar PV in 2020/2021

We predict that we will achieve the 2022 target of 2%.

Fleet Emissions



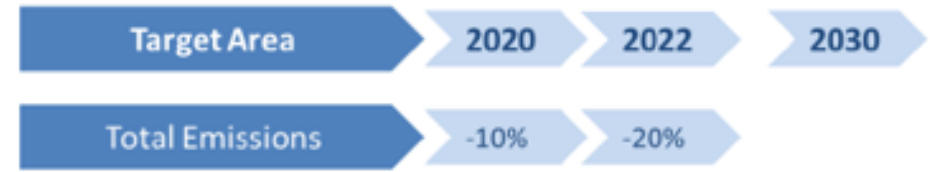
Fleet Emissions



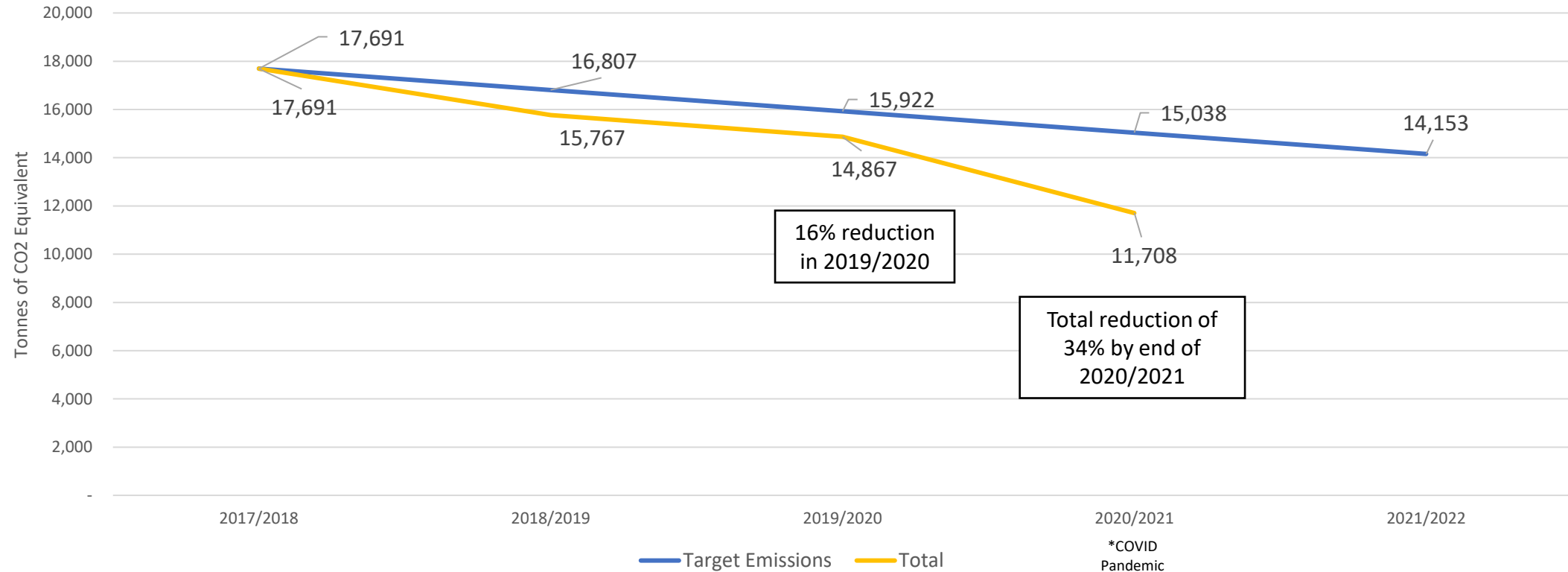
Fleet emission reduction of 7% in 2020/2021

2022 figures will be reviewed in May.
The use of electric refuse vehicles will have had a significant impact of carbon emission reduction.

Total Emissions vs Target








Breakdown of Emissions by Scope



| Scope 1 | | Scope 2 | |
|---------|-------|-------------|--------------|
| Fuel | Fleet | Electricity | Heat & Steam |

We predict that the 2020 target of a 20% emissions reduction will be achieved

Objectives – Progress

-  Reduce total carbon emissions in the shortest possible timeframe → Currently ahead of target
-  Make our buildings more energy efficient and improve user comfort → Draught-proofing and new lighting has improved user comfort in some buildings. This will to be replicated across the entire estate.
-  Reduce our total energy demand and dependance on imported energy through the use of on-site renewable energy generation → 7% of the electricity we consumed in 2020/21 was generated from solar PV panels on our roof. In the future we will need to maximise this proportion.
-  Reduce our business travel, fuel consumption and transision our fleet to electric or alternatively fuelled vehicles → All of these metrics are being progressed as we move to video conferencing and an electric fleet.
-  Where opportunities arise, engage with and support external organisations working to reduce carbon emissions in the Newport area → We have supported diocese schools with community solar installations and engaged with other public sector organisations on a range of matters.

2022 – 2026 and beyond

- The next iteration of the plan covering the period 2022 - 2026 will be published in Autumn 2023.
- The plan will fully align with NCC's organisational climate strategy and have an expanded scope to cover standards for new buildings and an energy usage policy for current buildings.
- The targets for the plan will be set following the completion of reporting for the final year of the current plan (2021 – 22)
- We have calculated that we require a 14.5% reduction per year from 2019/20 until 2030 to achieve an 80% reduction in carbon versus our 2017/2018 baseline.
- Achieving a 100% reduction will not be possible, therefore some local offsetting will be required.

End of Presentation