

# Producing a Net Zero Carbon Action Plan

for your Church

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# Introduction

- Who is this session for? Why am I here?
  - **Anybody** from any church can come along today
  - We have specifically invited representatives from the **top 20% highest emitting churches** in Durham Diocese - these churches are the priority for the next few years but other churches will then need to follow suit
  - I will explain how we reached the top 20% shortly
  - If you aren't in the top 20% - you are getting a head start which is a very good thing!
- I don't understand "net zero"! Our church has no money or time for this! How should I approach this session?
  - **With an open mind** - a "plan" is not an immediate binding commitment, and it doesn't always require expensive actions.
  - **With curiosity**- We will explain as best we can, and have some time after for questions. Feel free to contact Bethan or Martin afterwards, we are happy to help you.
  - **With positivity** - Dream big! Remember why we are trying to lower our emissions. Your positivity will help others in your church get on board, and having people on board is key!

# How did you work out the top 20%?

We used the 2022 Energy Footprint Tool (EFT) results from parish returns:

If your church completed the EFT - **thank you**. We used the data you provided.

If you didn't manage to complete the EFT, we looked at average usage for your size of building and made a best guess of your carbon footprint.

We ordered all carbon footprints biggest to smallest, and identified the top 53 churches.

**Being in the top 20% is not a bad thing!** It is mainly larger, well-used, missional churches that are in the top 20%. You will receive support and help - and hopefully lower bills in the long run.

Energy Footprint Tool 2023 ?

0% complete Not Submitted

*This form will not be verified by the diocese.*

Created: -

Last Modified: -

Enter Your Data

# What is Net Zero Carbon?



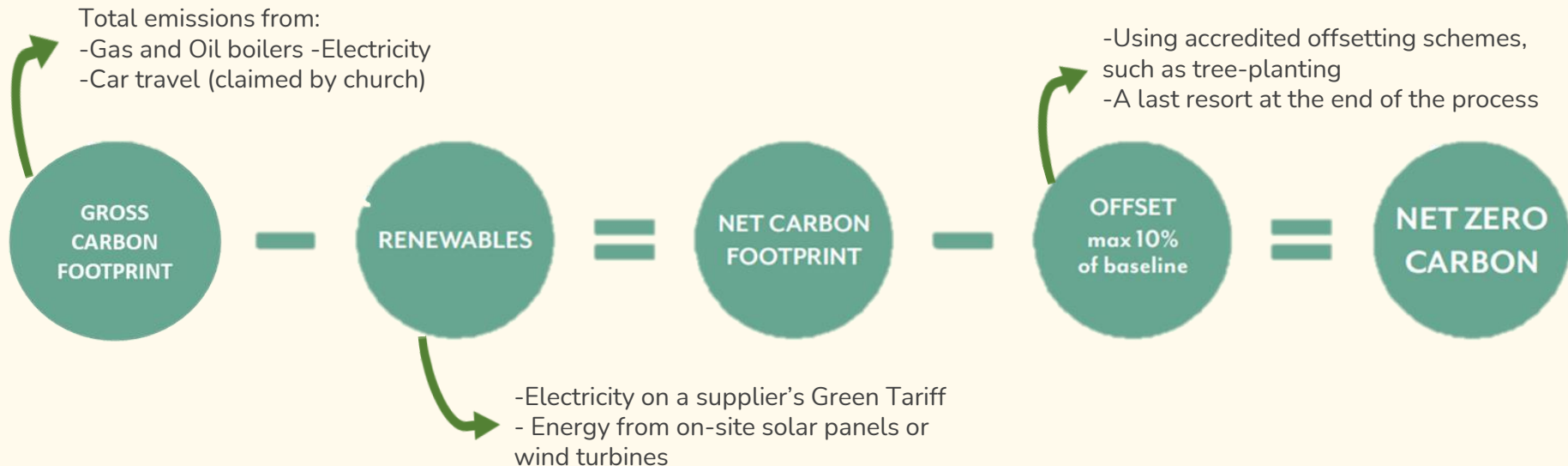
Our day to day activities produce carbon emissions - these emissions exacerbate global warming

Global warming (climate change) leads to droughts, floods, storms, sea-level rise - developing nations are worse affected.



# What is Net Zero Carbon?

Getting to Net Zero = reducing our emissions so that we no longer have a harmful effect on the planet



# Why should our church care?

- The Bible commands that we are to be stewards of God's creation
- The Bible commands us to love our (local and global) neighbour
- 5th Mark of mission
- Diocesan Priority - Caring for God's Creation
- General Synod Motion - July 2022



“That this Synod, having recognised that the global climate emergency is a crisis for God's creation, and a fundamental injustice, and following General Synod's motion passed in February 2020 to plan to reach net zero carbon by 2030:

a) endorse the “Routemap to Net Zero Carbon by 2030” ...

c) request high energy users within the Church (every cathedral, TEI, school, office and **the top 20% of energy-consuming churches**) to **similarly draw up a programme of action**, with a clear time frame, based on the Routemap...

# Why do we need a church action plan?

THE CHURCH  
OF ENGLAND  
DIOCESE OF DURHAM  
**Net Zero Action Plan v1.0**  
November 2023

Compiled by Bishop 2023, Diocesan Environmental Office, on behalf of the Net Zero Working Group.  
For comments and questions regarding this document please email [netzero@dioceseofdurham.org](mailto:netzero@dioceseofdurham.org)

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- Requirement of the national Routemap to Net Zero Carbon
- Requirement of Diocesan Net Zero Action Plan
- Better awareness of energy usage = lower carbon footprint = better stewardship of God's creation
- Provides an in-place contingency plan for when your boiler/heating system/lightbulbs fail
- May open up funding opportunities, and actions may save you money into the future





# Questions





# Action Plan - Phase 1 (March-June)

Many churches will have already done the first few steps.

**Step 1:** PCC to nominate a Net Zero Carbon (NZC) Lead on the PCC and if appropriate form a small NZC Working Group.

Add NZC to every PCC Agenda

**Step 2:** Complete Energy Footprint Tool on the Parish Returns Website and summarise the information in the table.

**Step 3:** Complete the Practical Path to Net Zero Checklist. This will help you identify some areas for immediate action and longer term action

	Building 1	Building 2	Building 3
Name <small>e.g. church, hall</small>	Church	Hall	N/A
Size (sqm)	565	420	N/A
Heating Type	Gas	Gas	N/A
Carbon emitted	5.6 Tonnes CO <sub>2</sub> e	8.7 Tonnes CO <sub>2</sub> e	N/A
Total Carbon	14.3 Tonnes CO <sub>2</sub> e (down from 15.6 last year)		

## CHECKLIST

### Part A - Where do we start?

These are actions that nearly all churches can benefit from, even those primarily used only on a Sunday.  
They are relatively easy and are a good place for churches to start, when trying to move towards 'net zero'.

	Already done / up-to-date	Not applicable	Not a priority right now	Explore further / get advice	Priority
<b>The building itself:</b>					
A1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

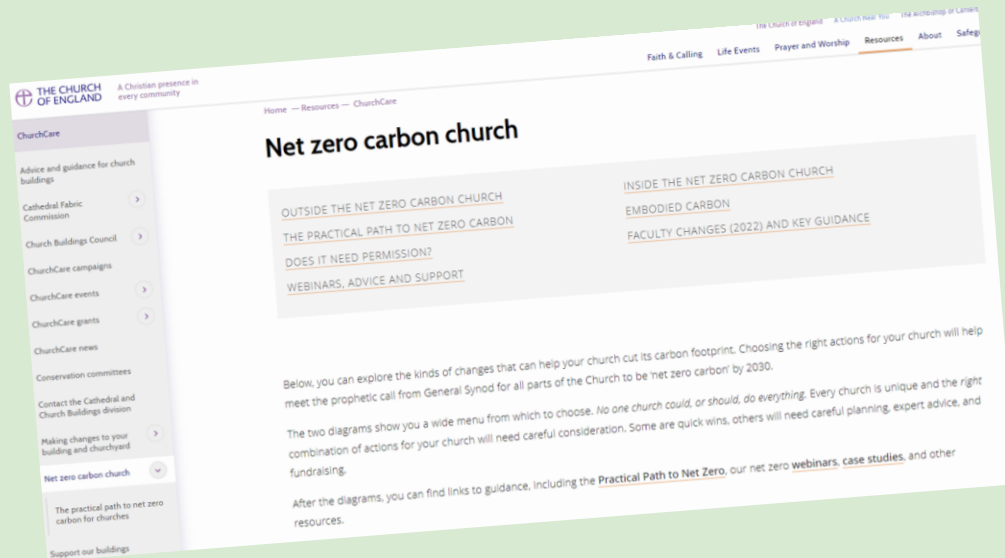
# Action Plan - Phase 1

## Step 4: Review the Church Building Council (CBC) Guidance on Net Zero Carbon

A large amount of resources have been produced and it is worth looking through as much as possible.

If you have a group you could look through a section each and then feedback to the rest of the group.

The webinars are a good starting point.



# Action Plan - Phase 1

**Step 5:** Begin to form your action plan.

## Quick Wins (zero or minimal cost):

	Action	Resources required	Who's responsible?
1	Clear all the gutters and drain pipes to ensure all walls are kept dry.	Get quote from usual roofing contractor for gutters. Work party to clear all gulleys.	Churchwarden
2	Change times of the regular church prayer meetings to follow on from a previous activity and reduce heating times	None	Vicar
3	Change light fittings to LED lights in the most used areas.	Quote to be obtained from electrician. Permission from Archdeacon	Churchwarden

# Action Plan - Phase 1

**Step 5:** Begin to form your action plan.

## Medium Term Actions (next 2 years):

	Action	Resources required	Who's responsible?
1	Add zones to the existing heating system so that meeting room can be heated separately.	Quote to be obtained from local heating contractor	M. Smith
2	Move Evening Service to follow Messy Church on 4 <sup>th</sup> Sunday.	None	Vicar
3	Install a smart meter so that energy use can be tracked more closely.	Contact energy supplier	F. Jones

# Action Plan - Phase 1

**Step 5:** Begin to form your action plan.

## Longer Term Actions (by 2030):

	Action	Resources required	Who's responsible?
1	Replace oil boiler with electric heating system.	Obtain quotes for pew heaters and infrared heating. Fundraising/ grants.	<i>F. Jones</i>
2	Add insulation to the roof when it is replaced. QI report suggests within the next 5 years.	Obtain quotes for roof replacement. Long term budget. Fundraising/ grants.	<i>F. Jones</i>
3	Replace windows to side rooms with double glazing.	Obtain quotes for double glazing Long term budget. Fundraising/ grants.	<i>M. Smith</i>



# Action Plan - Phase 1

**Step 6:** Identify what further support / information that you need to obtain to allow you to develop your action plan.

You will all be starting this from a different point so for some this section may be quite limited, whereas for others you will need a lot more information and support.

## Further information and support required:

- *Attend training session on "Achieving Net Zero in your Church Building".*
- *Arrange for Bethan Still to visit the church and talk through some of the different heating options that might be appropriate.*
- *Contact Martin Howard to discuss what permissions will be required to add zones to the heating system e.g. will a faculty be required.*

**Next:** Send your completed Phase 1 Action Plan to [netzero@durham.anglican.org](mailto:netzero@durham.anglican.org) by 30th June.



# Questions



# Action Plan - Phase 2 (July - December)

**Step 1:** Review of actions that have taken place already from your “Quick Wins” Actions

*During phase one of your action plan you identified some “Quick Wins” which need to be reviewed. You may not have done them all as yet but this is your opportunity to review where you are up to.*

*If you have a church magazine or newsletter it would be good to have regular articles to keep the whole congregation aware of the Net Zero Carbon Plans for the church.*

	Action	Completed Y/N?	Next Steps	Further resources required
1	Clear all the gutters and drain pipes to ensure all walls are kept dry.	Y	Book contractor to carry out an autumn gutter clear. Arrange another work party for November	Add to budget for 2025
2	Change times of the regular church prayer meetings to follow on from a previous activity and reduce heating times.	Y	Consider meeting in homes every other week during winter months.	None
3	Change light fittings to LED lights in the most used areas.	N	Quote obtained. Contact Archdeacon for permission.	Add other lights to 2025 budget.



# Action Plan - Phase 2

**Step 2:** Using the carbon data that you collated as part of Phase 1, identify priority areas for reduction.

	Building 1	Building 2	Building 3
<b>Name</b> <i>e.g. church, hall</i>	<i>Church</i>	<i>Hall</i>	<i>Annex</i>
<b>Size (sqm)</b>	<i>565</i>	<i>420</i>	<i>95</i>
<b>Energy sources used</b> <i>(gas, electricity, oil)</i>	<i>Gas &amp; Electricity</i>	<i>Gas &amp; Electricity</i>	<i>Electricity</i>
<b>Carbon emitted</b>	<i>5.6 Tonnes CO2e</i>	<i>8.7 Tonnes CO2e</i>	<i>1.2 Tonnes CO2e</i>
<b>Target 1</b>	<i>Reduce the amount of heating used during the winter months by moving midweek meetings into the Annex</i>	<i>Reduce the amount of electricity used to light the building.</i>	<i>Investigate more efficient heating systems.</i>
<b>Target 2</b>	<i>Investigate ways to reduce heat loss when main church doors are open.</i>	<i>Investigate more efficient heating control system, to reduce wated energy.</i>	<i>Investigate sensors for external and entrance lighting.</i>

# Action Plan - Phase 2

**Step 3:** Using the Targets identified in Step 2 along with the Medium and Long Term Priorities identified in Phase 1, agree on priorities and begin to develop action plans for each priority

<b>Priority 1</b> <i>Zoned heating system</i>				
<b>Details</b>	<i>Divide existing heating system into 3 zones so that the main church, vestry and meeting rooms can be heated separately using the existing boiler. <u>Therefore</u> reducing the amount of gas used and avoid heating empty spaces.</i>			<b>Overall Lead for priority 1</b>
	<i>M. Smith</i>			
	<b>Key action</b>	<b>Resources required</b>	<b>Deadline</b>	<b>Who will lead this?</b>
<b>Action 1</b>	<i>Obtain quotes for adding zone valves and necessary pipework.</i>	<i>Time to meet contractors.</i>	<i>14/9/24</i>	<i>F. Bloggs</i>
<b>Action 2</b>	<i>Research different types of SMART thermostats that will allow the zones to work efficiently.</i>	<i>None other than time.</i>	<i>14/9/24</i>	<i>P. Jones</i>
<b>Action 3</b>	<i>Check with DAC Secretary if a faculty will be required for the work.</i>	<i>None</i>	<i>15/8/24</i>	<i>Churchwarden</i>
<b>Action 4</b>	<i>Complete faculty application</i>	<i>Access to the Online Faculty System &amp; Time</i>	<i>30/10/24</i>	<i>Churchwarden</i>
<b>Action 5</b>	<i>Agree on proposal.</i>	<i>PCC agenda item. Sufficient funds in budget.</i>	<i>12/11/24</i>	<i>M. Smith</i>
<b>Notes</b>	<i>If faculty is not required it can be discussed at the October PCC meeting.</i>			

## Action Plan - Phase 2

**Step 4:** Review proposed actions with PCC.

**Step 5:** Looking at your action plans, what are the potential barriers that you will need to overcome?

### Potential Barriers

- *Lack of finance to make the changes to the building.*
- *Lack of knowledge of which interventions might have the best impact on reducing carbon.*
- *Getting the whole congregation on board with the plans.*
- *Lack of time to do something "extra".*

### Resources needed to overcome these barriers

- *Information from Bethan or Martin on the different options that might be suitable for our church.*
- *Funding from the Diocese / Church of England to support this.*
- *Support with grant applications.*
- *Time!*

**Next:** Send your completed Phase 2 Action Plan to [netzero@durham.anglican.org](mailto:netzero@durham.anglican.org) by 31st December.



## Action Plan - Phase 3 (January - June)

The format of your final action plan will to some extent depend on whether you decide to produce your own or employ someone to do it for you.

There may be funding to help some churches produce a detailed plan.

We are also waiting to see if any national templates are produced before deciding on the exact format of a final action plan will take.

We will keep you informed.

## Summary - What to do next

- Nominate a Net Zero lead in your church, consider setting up a small working group
- Fill in quick wins checklist
- Make use of resources to understand options available
- Send Phase 1 form to [netzero@durham.anglican.org](mailto:netzero@durham.anglican.org) by 30th June.
- Fill in EFT on Parish Returns so your church can monitor your carbon footprint
- Encourage ongoing discussions in your PCC meetings and within your church





# Q&A

