



Action planning

Journey to net zero carbon emissions

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Before we begin

- Introductions
- Sharing my screen
 - use the side by side view
- Recording the session
 - mute during the presentation
 - questions in the chat
- Time for discussion
 - not recorded
- We will send the slides after the session

We need to go from

this



Photo by [Xavi Cabrera](#) on [Unsplash](#)

to this



Photo by [Omar Flores](#) on [Unsplash](#)



Getting all our pieces in order

Why net zero?

Turning the motion into action

Insights from Diocese of Oxford's process

Laying the groundwork

Questions



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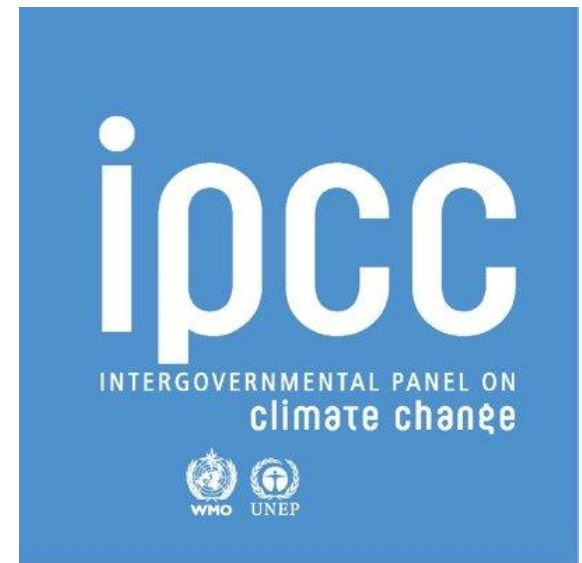
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IPCC report October 2018

- Highlighted the difference between global temperatures raising by 1.5°C and 2°C. The impact of this on people and planet is devastating
- We need to see significant reductions in our climate emissions in the next 12 years in order not to exceed 1.5°C



General Synod motion

That this Synod, recognising that the global climate emergency is a crisis for God's creation, and a fundamental injustice, and following the call of the Anglican Communion in ACC Resolutions A17.05 and A17.06;

- (a) call upon all parts of the Church of England, including parishes, BMOs [Bishop Mission Orders], education institutions, dioceses, cathedrals, and the NCIs [National Church Institutions], to work to achieve year-on-year reductions in emissions and urgently examine what would be required to reach net zero emissions by 2030 in order that a plan of action can be drawn up to achieve that target;
- (b) request reports on progress from the Environment Working Group and the NCI's every three years beginning in 2022 and;
- (c) call on each Diocesan Synod, and cathedral Chapter, to address progress toward net zero emissions every three years.

Five marks of mission

- The mission of the Church is the mission of Christ
 - To proclaim the Good News of the Kingdom
 - To teach, baptise and nurture new believers
 - To respond to human need by loving service
 - To transform unjust structures of society, to challenge violence of every kind and pursue peace and reconciliation
 - To strive to safeguard the integrity of creation, and sustain and renew the life of the earth





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Turning the motion into action in our context

- Taking ownership of the GS motion
 - Making a commitment to reduce emissions and set out a plan of action to reach net zero carbon by 2030
 - Passing a motion at Diocesan Synod?
- Establishing a team to take this forward
- Setting out a plan
- Reporting back and accountability
- Acknowledgment to the work done in Oxford Diocese for some of what follows

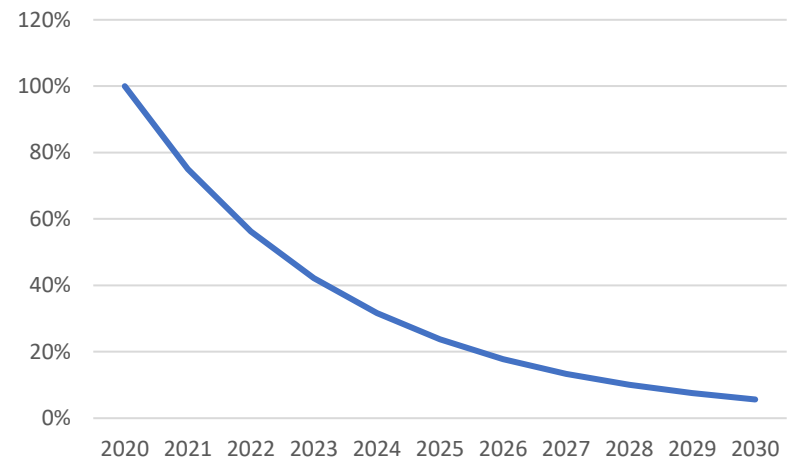
Process

- Define our parameters by working out the scope of what is included in a net zero target
- Assess the scale of the action needed – looking first at where we stand with each element and what the core issues are that we’re going to have to address
- Assess our resources and formulate a plan to address these issues that fits within our resource constraints
- Assess, on that basis, what a feasible timescale would be

We've got 10 years

- This is both longer and shorter than you think!
- We are in the scoping, measuring, planning and gathering phase
- This is also the time when we need to bring everyone with us on our journey

Illustration of pace of change required to achieve net zero carbon by 2030 (25% reduction year on year)



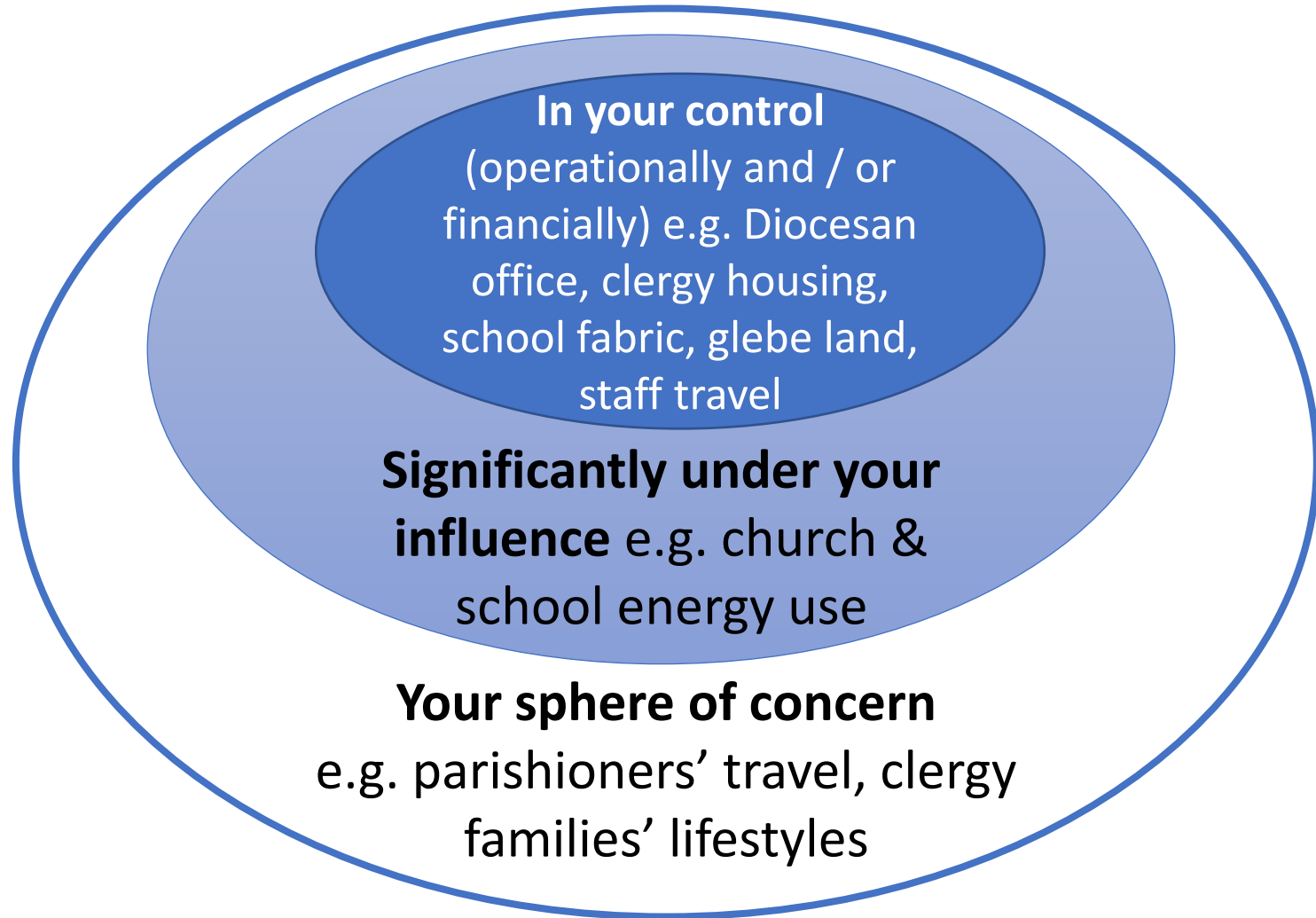
Timing our interventions

2020 – 2024

2024 onwards



Circles of control





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Defining the scope

In scope?	Buildings / activities
<p>✓ 2030 NET ZERO</p> <p>These are in scope of our “net zero by 2030” target.</p> <p>We will aim to measure these as soon as possible.</p>	<ol style="list-style-type: none"> <li data-bbox="347 357 1275 1013"> <p>The energy use of our buildings;</p> <ul style="list-style-type: none"> Gas, oil, or other fuel use Electricity purchased (no matter the source it is purchased from – renewable electricity purchased is accounted for later – see Page 8) For the following buildings; <ul style="list-style-type: none"> Churches, including church halls and ancillary buildings. (This includes non-parochial churches, BMOs and others if they have their own utility supplies. Tenants should be excluded if possible, e.g. if on their own sub meters) Cathedrals Schools (only Voluntary Aided & Diocesan Academy Trusts)  Clergy housing and bishop’s housing wholly owned by the Church (based on EPC grades and <u>average</u> reasonable use, not actual usage, see later ) Church bodies’ offices including Church House Westminster, diocesan offices, and bishops’ offices Peculiar, only if they come under faculty jurisdiction Other diocesan property, including common parts of tenanted properties Theological Education Institutions which are part of the Church of England A choice can be made about including or excluding the “well to tank” and “transmission and distribution” factors involved in getting energy to the building. Here, it is proposed to include them.  <li data-bbox="347 1021 1275 1142"> <p>The petrol / diesel we use for work-related travel (eg by archdeacons on visitations, CBC / DAC members on visits to discuss projects, reimbursable clergy and ordinand travel, reimbursable staff and volunteer travel, staff and clergy making reimbursable flights for work or ministry).</p> <p><i>In standard Greenhouse Gas reporting definitions, see overleaf, these are our “Scope 1” and “Scope 2” emissions, and some small elements of Scope 3 which are operational simpler to include.</i></p>

This is covered in detail by the webinar ‘Defining and measuring net zero’

Assessing the scale

- Covered in detail by the 'defining and measuring net zero' webinar
- Tools for measuring each part of what's in scope
- Tools which are ready
 - Energy Footprint Tool for churches
 - Display Energy Certificate for schools
 - Energy Performance Certificate for clergy housing
- Research and Stats team hoping to compile a toolkit to add to the EFT and keep everything together

Assessing the scale

- Aggregate the data so you know where to focus to have the most impact
- Major components in Oxford's findings:
 - Schools
 - Energy use in large churches open all week
 - Clergy housing
- Oxford also found that the measurement which is enough for a carbon baseline and progress report (ie EFT or DEC) not necessarily adequate for planning what to do about it

Formulating a plan - buildings

- Basic principles:
- Reduce energy use
 - Cut waste – only use what you need
 - Improve energy efficiency – making sure the system is working well and the building is well maintained
- Decarbonise the energy you continue to use
 - Switch to a renewable tariff
 - Where possible move away from fossil fuel

One finding from Oxford

- Start with off-grid properties
 - these will definitely need to change their heating systems.
- On grid properties
 - The government also has a commitment to net zero carbon and will need to decarbonise heat
 - This strategy is not yet clear. Three main options in consideration:
 - hydrogen in the grid (which appears to be favoured)
 - district heating networks
 - switch to heat pumps
 - Very different financial implications
 - Defer major changes not immediately required until both a national strategy and the strategies adopted by local authorities are clear.
- Depends whether you have lots of off-grid properties!

Oxford's strategy for churches

- Initial measuring identified three strands needing different approaches:
 - churches with high energy usage, complex buildings, planned works, increased usage and/or specific heating questions
 - those with less complex issues
 - those which are not going to require a change in heating system and are so low use that capital expenditure to reduce emissions is not going to be warranted
- Correlates with approach laid out in 'vision of a net zero carbon church'

Guidance for churches

- <https://www.churchofengland.org/sites/default/files/2020-04/the-practical-path-to-net-zero-carbon-for-churches-FINAL-April-2020.pdf>
- <https://www.churchofengland.org/sites/default/files/2019-12/Energy%20-%20Economic%2C%20Environmental%20and%20Efficiency%20%20Guidelines.pdf>

A practical path to “net zero carbon” for our churches

These recommendations aim to help churches reduce their energy use and associated carbon emissions. They are based on the findings of our church energy audit programme and input from a range of professionals in the field.

NOTE: Many of the suggestions below require faculty; please seek input early on. If the church interior is of historic, artistic, architectural or artistic interest, seek professional & DAC advice first, before making changes; stabilising the environment for these interiors is important to minimise cycles of treatment, with their inherent carbon cost.

A. Where do we start?

These are actions that nearly all churches can benefit from, even low occupancy churches used only on a Sunday. They are relatively easy, with relatively fast pay back. They are a good place for churches to start, when trying to move towards ‘net zero’.

The building itself:

- Maintain the roof and gutters, to prevent damp entering the building and warm air escaping.
- Fix any broken window panes* and make sure opening windows shut tightly, to reduce heat loss.
- Insulate around heating pipes to direct heat where you want it; this may allow other sources of heat to be reduced in this area.
- If draughts from doors are problematic, draught-proof the gaps* or put up a door-curtain.
- Consider using rugs/floor-coverings (with breathable backings) and cushions on/around the pews/chairs.

Heating and lighting:

- Switch to 100% renewable electricity and “green” gas, for example through Parish Buying’s energy basket.
- Match heating settings better to usage, so you only run the heating when necessary*.
- If you have water-filled radiators, try turning-off the heating 15 minutes before the service ends; for most churches this allows the heating system to continue to radiate residual warmth*.



Oxford's strategy for clergy houses

- 2020-2025
 - Transition off-grid properties to alternative heat sources as the appropriate technologies become clear.
 - Undertake repairs and, if funds allow, proactive measures that involve 'no regret' options, increasing the energy efficiency of the housing in ways that will be effective whatever heating system is used.
- 2024/2025 onwards
 - consider the options for transitioning the remaining housing stock to lower carbon heat sources.

Oxford's strategy for schools

- Transition off-grid properties
- Better facilities management
- 'no-regret' options
 - It is worth noting that the possibilities for external funding are probably greatest for schools, as Salix funding is available; schools have historically benefitted significantly from the Renewable Heat Initiative (though this may change); and there are bodies such as Low Carbon Hub that would be willing to work with schools on renewable projects.

What else?

- Travel
 - Diocesan policy on flights
 - Meetings venues accessible by public transport
 - Electric vehicle salary (and stipend) sacrifice scheme
- Cathedrals
- Land
- Investments



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Management

- Agreeing to commit to carbon reductions
- Getting your team together
- Setting your terms of reference, reporting and accountability structures
- Covered in more detail in the ‘forming your team webinar’

Gathering resources (information)

- It's ok to take time to get this right
- Start with the tools that are ready –
 - EFT, DEC, EPC
- Develop ways to gather other
 - Travel expenses
 - Church House energy costs
- What tools will help you fill the gaps
 - Quinquennial inspection, articles of inquiry



Not just this year



- Quinquennial Inspection
 - Gives you a programme to visit every church and clergy house twice across 10 years
 - First time to assess, second time to review
- Articles of Inquiry
 - A plan for what you want to ask over a few years
- Keep reviewing
 - When you start, you don't know what you don't know
 - You don't have to detail all your planned works at once
 - Celebrate what you've achieved
 - Set the next set of goals/plans

Behaviour change

- How do we tell the story?
 - Embedding this into our discipleship is fundamental to our success
 - All parts of the church need to be involved
 - Therefore this needs to be articulated in your plan



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London Diocese



LDS(A)20/1, Item 8(b)(ii)

Caring for God's Creation 2030 Vision: Compassionate Communities

Framework Action Plan

- Tackling the climate crisis
- Cherishing the natural world
- Cutting needless waste



Focus points

Net zero carbon diocese by 2030: cuts in energy use 1% per year, through 2020s, 2030s & '40s	Every church an Eco Church; Eco Diocese from 2020: Bronze award by 2021, Silver 2023, Gold 2025	Cutting consumption, making green choices in food, transport and lifestyles
LED lighting, electrical heating, solar panels on churches, houses, schools, commercial property	Encouraging wildlife and habitats; Tree planting, green roofs and walls	Less single-use plastic, fighting waste & litter, zero to landfill
Support for victims of weather extremes, informed by partners in Mozambique and Angola	Engaging with young people, working with local schools and colleges	Encouraging creative re-use, in support of the transition to a 'circular economy'

Annex to Diocesan Environmental Policy - 1

London Diocese

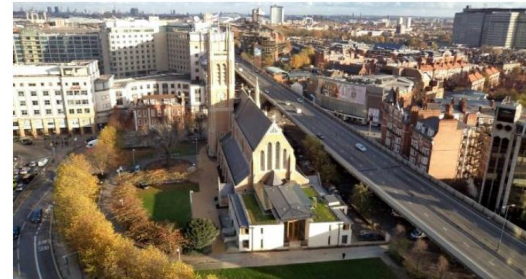
Long-term net zero carbon plan

Principles & theology	<ul style="list-style-type: none"> • Love for God, for his people and for the created order: God’s creation is our shared habitat • Compassionate action for the victims of climate change, with emphasis on the poor and vulnerable in the UK and around the world, especially Mozambique and Angola
Property, buildings & land	<ul style="list-style-type: none"> • Focus on churches, halls, residential, offices, commercial, church schools; the City and St Paul’s Cathedral; • Church growth: more not less use, 24/7 living; working, learning, eating, praying, nurturing, thriving together • Churches and halls: measurement through annual returns, using new National CoE Tool; measurement of other premises by Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs) • Target energy savings from 2005: 25% by 2025, 30% by 2030, 40% by 2040 etc (19.5% already to 2018), equates to min 1% per year from now on • Projected gross savings of greenhouse gases (mainly CO₂) from 2005 – 21.7% already to 2018: 42% by 2025, 56% by 2030, 70% by 2040 • Electrification of most heat; 100% rollout of LED lighting (light emitting diodes); • Generation and storage: widest implementation of solar PV (photovoltaics) on churches, houses, commercial property; ground and air source heat pumps where beneficial • DAC and faculties • Developments on church land: power purchase agreement/private wires? • Residual grid gas incl up to 20% hydrogen and growing proportion of bio-methane • Max 54% residual offsetting by 2030, down to 30% by 2040: renewable tariffs and/or greenhouse gas removal, tree planting, greentech investments • Costing; funding plan – diocesan bonds? Debt finance? Community Benefit Societies?
Operations, purchasing & consumption, finance	<ul style="list-style-type: none"> • Equivalent targets as above • Measurement through Eco Church 360 tool • Assessments by church and premises managers; • Sourcing and purchasing, catering and food; incl through Parish Buying • Procurement and supply chain emissions • Finance and investments

Annex to Diocesan Environmental Policy - 3

London Diocese

<p>Cultures & people, behaviour change, advocacy</p>	<ul style="list-style-type: none"> • Diocesan and Area staff: job descriptions, introductory packs, annual performance reviews • Collective support and leadership by diocese and clergy • Ministerial & lay training, St Mellitus • Getting congregations on board • Inclusion, affirmation and empowerment: children and young people, BAME (Black and Minority Ethnic) groups • Actions at home and work amount to 96% of emissions! • Personal responsibility and choices: transport, lifestyle, food and clothing, consumer goods • Measurement and reduction of footprints on similar principles • Journeys of faith and discipleship: liturgy, prayer and (low carbon) pilgrimage • Communication and engagement: advocacy and activism, national and international stages, local community groups • Building resilience, healing communities • Bearing faithful witness, Resurrection hope
<p>Wider environment</p>	<ul style="list-style-type: none"> • Participation in Eco Church (from 2016), Eco Diocese (from 2020): Diocese Bronze by 2021, Silver by 2023, Gold by 2025 • Partnerships with Universities, Local authorities, schools and colleges • Wildlife & biodiversity in our churches; green walls and roofs • Resources & recycling – alongside efforts on climate change, energy and carbon




























Annex to Diocesan Environmental Policy - 4

Eco Church and Eco Diocese

- Worship and teaching
- Buildings
- Land
- Lifestyle
- Community & global

Set goals - % bronze, silver and gold each year. When will the Diocese hit gold?

<https://ecochurch.arocha.org.uk/>

Registered Dioceses
Bangor
Bath and Wells
 Birmingham
Blackburn
 Bristol
 Canterbury
Carlisle
Chelmsford
Chester
 Chichester
 Coventry
 Derby
Durham
Ely
 Europe
 Exeter
 Gloucester
 Guildford
 Hereford
 Llandaff
 Leeds
Leicester
 Lichfield
 Lincoln
 Liverpool
London
Monmouth
 Manchester
Newcastle
Norwich
Oxford
 Peterborough
 Portsmouth
Rochester
St Albans
 St Asaph
 St Davids
 St Edmundsbury & Ipswich
 Salisbury
Sheffield
Sodor and Man
Southwark
Southwell & Nottingham
 Swansea and Brecon
Truro
 Winchester
Worcester
York

Resources and landmarks

- Preaching resources
 - [Greening the Lectionary](#)
 - [Sustainable preaching](#)
- Creationtide
- [Climate Sunday](#) (2020-2021)
- Lambeth conference 2021
- COP26 in Glasgow 2021
- Your own Diocesan event – when?



Not just this year

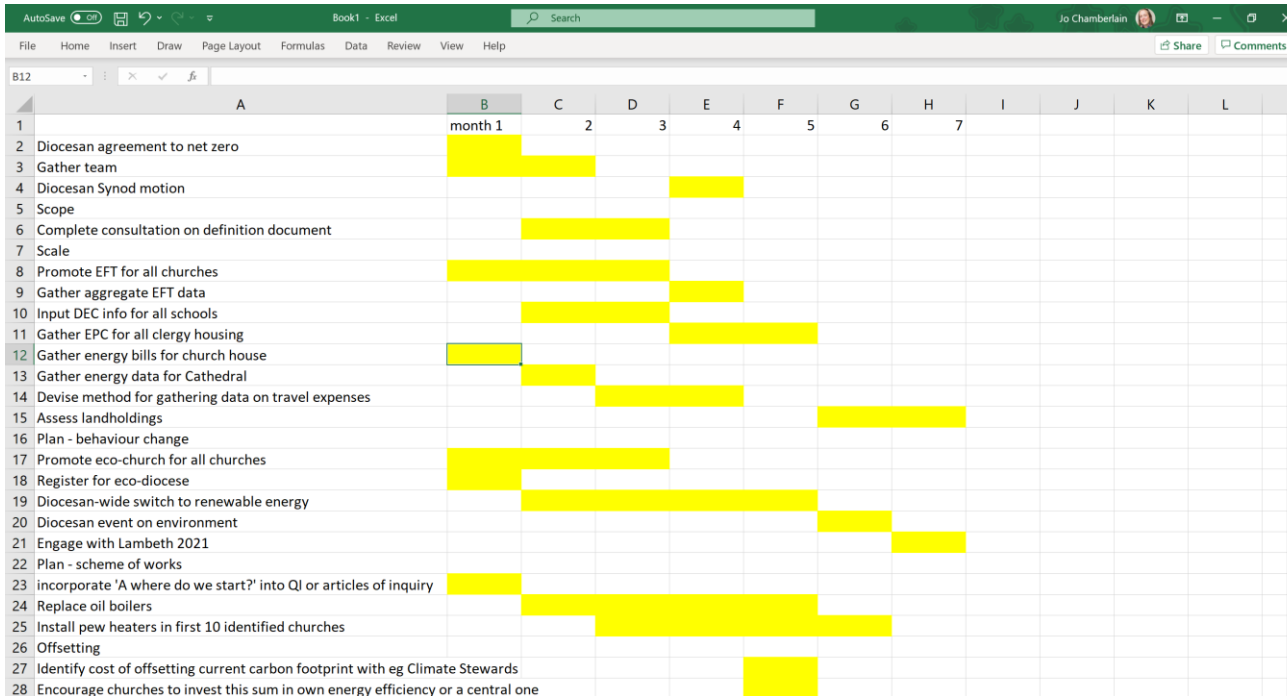
- How will you keep telling the story over the next 10 years?
- Sharing good news and success stories
 - A planned space for environment news in your comms (Parish news, Diocesan news, school newsletter)
 - Social media
- Annual focus on environment/climate in services
 - Creationside (Harvest)
 - Advent, Lent, [Agricultural year](#)
- Other regular events
 - Carbon fast, pilgrimage, walk/cycle to church Sunday

Your own story-tellers

- Identify net zero champions:
- One in each parish or mission partnership
- One in each deanery
- Or go where the energy is – which is your keenest deanery?
- How will you grow this network across the next 10 years
- Identify net zero champions in schools

One more tool

- Gantt chart



A final word on offsets

- Our priority is to reduce our carbon emissions as close to zero as we possibly can, and to make year-on year reductions
- But there will be some emissions we can't reduce
- Only then do we consider offsets
- Start thinking now
 - Assess and return cost to internal energy efficiency
- By 2030 we will need a policy to:
 - Buy offsets (eg Climate Stewards)
 - Improve our own land



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- We still have more webinar slots open

<https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate-change/webinars-getting-net-zero-carbon>

- Vision of a net zero church
- Defining and measuring net zero
- Forming your net zero team