**Annex to URC Yorkshire Synod Environment Policy 2021**

### **Annex 1 URC Environment Policy:** esp. Section 2.6 and Section 5

<https://urc.org.uk/images/mission/church_and_society/Resources/201905_URC_Environmental_Policy.pdf>

Synod asks churches to always ensure they have a current URC Environment Policy in their Eco portfolio. In presenting the URC Policy we are conscious of on-going change:

*The science has become more definite in its assertion of a Climate Emergency since the 2019 Policy was approved, with associated deadlines moving on. We are now asking churches to be zero carbon by 2030.*

**URC Youth achieve climate emergency action at Mission Council**

**United Reformed Church (URC) Youth are celebrating that the wider denomination has officially recognised the climate emergency.**

URC Youth presented a resolution, which subsequently passed, at Mission Council, the executive body of General Assembly, held digitally on 10 July 2020.

<https://urc.org.uk/latest-news/3536-urc-youth-achieve-climate-emergency-action-at-mission-council.html>

**Annex 2 Net Zero Carbon**

“In June 2019, parliament passed legislation requiring the government to reduce the UK’s net emissions of greenhouse gases by 100% relative to 1990 levels by 2050.  Doing so would make the UK a ‘net zero’ emitter. Prior to this, the UK was committed to reducing net greenhouse gas emissions by at least 80% of their 1990 levels, also by 2050.

[**What does ‘net zero' mean?**](http://twitter.com/intent/tweet?text=What%20does%20%E2%80%98net%20zero'%20mean%3F)Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. There are two different routes to achieving net zero, which work in tandem: reducing existing emissions and actively removing greenhouse gases.

A *gross*-zero target would mean reducing all emissions to zero. This is not realistic, so instead the *net*-zero target recognises that there will be some emissions but that these need to be fully offset, predominantly through natural carbon sinks such as oceans and forests. (In the future, it may be possible to use artificial carbon sinks to increase carbon removal, research into these technologies is ongoing.)

When the amount of carbon emissions produced are cancelled out by the amount removed, the UK will be a net-zero emitter. The lower the emissions, the easier this becomes.

[**Why is the government trying to achieve net zero?**](http://twitter.com/intent/tweet?text=Why%20is%20the%20government%20trying%20to%20achieve%20net%20zero%3F)In May 2019, the Committee on Climate Change (CCC), a non-departmental public body that advises the government on the climate, recommended that the UK should aim to be net zero on all greenhouse gases by 2050. This would keep the UK in line with the commitments it made as part of the 2016 Paris Agreement to keep global warming under 2 degrees”. Institute for Government.

**Synod recommends** churches and Synod aim to achieve net zero emissions by 2030. We believe this can be achieved with forethought and whole church cooperation.

**Carbon neutrality** refers to achieving net-zero [carbon dioxide emissions](https://en.wikipedia.org/wiki/Carbon_dioxide_emissions). This can be done by balancing emissions of carbon dioxide with its removal (often through [carbon offsetting](https://en.wikipedia.org/wiki/Carbon_offset)) or by eliminating emissions from society (the transition to the "post-carbon economy"). It is used in the context of [carbon dioxide](https://en.wikipedia.org/wiki/Carbon_dioxide)-releasing processes associated with transportation, energy production, agriculture, and industry.

Although the term "carbon neutral" is used, a [carbon footprint](https://en.wikipedia.org/wiki/Carbon_footprint) also includes other [greenhouse gases](https://en.wikipedia.org/wiki/Greenhouse_gas), usually [carbon](https://en.wikipedia.org/wiki/Carbon)-based, measured in terms of their [carbon dioxide equivalence](https://en.wikipedia.org/wiki/Carbon_dioxide_equivalent). The term climate-neutral reflects the broader inclusiveness of other greenhouse gases in [climate change](https://en.wikipedia.org/wiki/Climate_change), even if CO2 is the most abundant. The term "net zero" is increasingly used to describe a broader and more comprehensive commitment to decarbonization and climate action, moving beyond carbon neutrality by including more activities under the scope of indirect emissions, and often including a science-based target on emissions reduction, as opposed to relying solely on offsetting. Wikipedia

**See also Annex 7 A Guide to going Greener**

**Annex 11** sets out suggested one, two and five year plans for guidance in each church.

**Annex 3 URC Vision 2020 Statement 10 of Ten Statements**

<https://urc.org.uk/what_we_do/mission/documents/vision2020genlassembly_report.pdf>

**Statement 10: The integrity of creation**: We will be a Church that has taken significant steps to safeguard the integrity of creation, to sustain and renew the life of the earth.

The changing climate and its consequences for all life on planet earth cannot be over emphasised as the most significant underlying issue of our time. Being an intergenerational community of faith that trust in the God of creation past, present and to come, it is vital that the Church recognizes the reality present in environmental debates. We must not neglect science. Our churches, reflecting faith in God the creator and sustainer of life in all its fullness, must discover the radical voice of care for the earth … supported by the way we live. [abridged and altered].

**Some suggested local Indicators:**

Carrying out an environmental audit and implementing the resulting action plan.  
Giving voice to the God whose life and love is expressed in all creation through worship, Bible study and prayer.  
Involving children and young people in activities focusing on care for the environment.  
Production of a piece of community artwork celebrating the Creator God.

**Synod Indicators**The number of Eco-churchesa with clear environmental action plans.  
Developing and implementing plans to become an ‘eco-Synod’.  
The number of churches receiving training and support on issues of climate justice and environmental care.

a See: Eco-churches at A Rocha - <https://ecochurch.arocha.org.uk/>

**Assembly Indicators**  
Significant year-on-year cuts to the URC’s carbon footprint.  
The development of a FURY strategy responding to the challenge of climate change.

See also Annex 1 on Youth Assembly Resolution, passed at Mission Council 2020

**Annex 4** Further Reading - COP 15 and COP26 [as at July2021]

The 2015 United Nations Climate Change Conference, COP 21 was held in [Paris](https://en.wikipedia.org/wiki/Paris) in 2015. It was the 21st yearly session of the [Conference of the Parties](https://en.wikipedia.org/wiki/United_Nations_Climate_Change_conference) (COP) to the 1992 [United Nations Framework Convention on Climate Change](https://en.wikipedia.org/wiki/United_Nations_Framework_Convention_on_Climate_Change) (UNFCCC)

Conference negotiated *the* [*Paris Agreement*](https://en.wikipedia.org/wiki/Paris_Agreement), a global agreement on the reduction of [climate change](https://en.wikipedia.org/wiki/Climate_change)s, the text of which represented a consensus of the representatives of the 196 attending parties. According to the organizing committee at the outset of the talks, the expected key result was an agreement to set a goal of limiting [global warming](https://en.wikipedia.org/wiki/Global_warming) to "well below 2° [Celsius](https://en.wikipedia.org/wiki/Celsius)” compared to pre-industrial levels. The agreement calls for zero net anthropogenic [greenhouse gas emissions](https://en.wikipedia.org/wiki/Greenhouse_gas_emissions) to be reached during the second half of the 21st century. In the adopted version of the Paris Agreement, the parties will also "pursue efforts to" limit the temperature increase to 1.5 °C. The 1.5 °C goal will require zero emissions sometime between 2030 and 2050, according to some scientists.

# **COP26.** The United Nations Climate Change Conference in November 2021. <https://www.gov.uk/government/topical-events/cop26>

# **UK enshrines new target in law to slash emissions by 78% by 2035** The UK’s sixth Carbon Budget will incorporate the UK’s share of international aviation and shipping emissions for the first time, to bring the UK more than three-quarters of the way to net zero by 2050. <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

**Annex 5 Synod Green Apostles**

*Key aspects of the role*

Green Apostles will endeavour to:

* be well informed on the issues, programmes and campaigns around climate change;
* be proactive in highlighting the issues in their synods by offering to speak to churches and synod meetings/groups;
* provide regular updates on action and resources at synod meetings and in other ways;
* take a leading role in supporting the synods as they seek to implement aspects of the Environmental Policy particularly addressed to synods, as follows:
* encourage their churches to gain ‘Eco-Church’ status (in the case of churches in England and Wales) or ‘Eco-Congregation’ status (in the case of churches in Scotland); in so doing they will encourage churches to see the positive benefits in terms of the financial savings that environmentally-friendly practices can bring;
* develop and implement plans to become ‘Eco-synods’;
* ensure that their buildings, including manses, are environment friendly through the use of energy-saving technologies and by identifying and using renewable sources of energy as appropriate;
* encourage their churches to work in collaboration with, or initiate, local transition or sustainability groups;
* encourage their churches to receive training and support on issues of climate justice and environmental care;
* appoint one or more ‘Green Apostles’ to monitor progress on carbon reduction in their synod (if preferred this role could be differently named, for example ‘Sustainability Ambassador’);
* draw up an ‘environmental charter’ along the lines of that adopted by North West Synod in 2015.

The role of ‘Green Apostles’ will have increased significance as they work with the synods to implement the new Environmental Policy for the United Reformed Church which was received and adopted by the General Assembly in July 2016, [amended 2019]. The policy is a statement of intent, providing a basis for appropriate action while recognising the efforts many churches have already taken to reduce their carbon footprint. Church and Society will be sending a mailing to all churches in early September with a copy of the policy and related information.

The Environmental Policy and the resolution passed by General Assembly can be found on the Church and Society Resources page: <http://www.urc.org.uk/cs-resources.html> under ‘United Reformed Church Policies’.

Note: The Assembly resolution included the setting up of a task group to monitor the URC’s progress towards meeting its commitment to reduce its carbon footprint. This group might also review the role of Green Apostles. [2016]

**Annex 6 Eco church explained**

**Eco Synod, Eco church links and key goals A Rocha**: [Eco Synod](https://ecochurch.arocha.org.uk/eco-synod/) is an award programme that helps Synods to look at their own environmental impact as well as encouraging local churches to participate in Eco Church. Synods progress partly according to the number of congregations in their area achieving the Eco Church award at different levels. <https://ecochurch.arocha.org.uk/>

Details on Eco Synod and Eco Church are found at: <https://ecochurch.arocha.org.uk/denominational-awards/eco-synod/>

**Eco Synod status** will be given to your Synod when it has:

**Registered its intent to become an Eco Synod**

**Commissioned an individual or group -** To coordinate progress within the Synod.

**Written an environmental policy -** that has been agreed by the Synod meeting. This should include points on travel, the environmental maintenance of its manses (where appropriate) and a commitment to reducing Synod carbon emissions (taking into account the recommendations contained within the 2019 updated URC [Environmental Policy](https://urc.org.uk/images/mission/church_and_society/Resources/201905_URC_Environmental_Policy.pdf)).

**Gained the appropriate levels of local church registrations and Awards for Eco Church**

* + Bronze Eco Synod: 10% of local churches registered; 5% of local churches awarded
  + Silver Eco Synod: 20% of local churches registered; 10% of local churches awarded
  + Gold Eco Synod: 30% of local churches registered; 20% of local churches awarded

**Achieved the relevant Eco Church Award level -** For its Synod offices (where appropriate) and land (where appropriate)

**Embedded environmental issues -** Having sought to ensure that environmental issues are integrated within the discipleship development provision of the Synod, including continuing ministerial education.

**Managed Synod investments ethically -** With due consideration of the environmental implications of those investments, taking into account the [2019 updated URC’s Ethical Investment Guidelines on Climate Change Issues](https://urc.org.uk/images/2019_version_Ethical_Investment_Policy.pdf).

**Worked with other Synods, denominations and/or faith groups -** To encourage greater environmental action, including promoting Eco Church as a helpful tool

**Established the habit of recording and celebrating individual environmental initiatives**

**Annex 7: A less than exhaustive Guide to being Greener, based on headings in Eco church**

Environment Task team recommends to following two webpages to help with recording and monitoring your church and personal carbon footprints. More in Annex 8

<https://climatestewards.org/> - for the church audit and assessment

<https://carbonfootprint.com/calculator1.html> - for personal analysis

**Worship and Teaching**

|  |  |
| --- | --- |
| All God’s creation at heart of life Prayers for creation, community, humanity Time out with Children as learning experience – explore rural landscape Meeting/chatting with neighbours Tending God’s garden House groups with Eco material  Eco groups for children Reading and sharing | Host Eco events – egg hunts, bird, flower or insect counts Meals or cakes with Fair trade ingredients Sharing worship material Celebrate Christian events with neighbours  Shared coffee morning in the street, front or back garden  Include prayers from environment sources in personal worship |

**Buildings**

|  |  |
| --- | --- |
| Eco survey or Thermal survey: identify heat loss/cold spots  Check windows, doors, floors for draughts Breathable “sock” at open chimneys Repair missing or poor mortar Lime mortar for stone-build with no cavity Replace missing roof slates Repair water ingress/leaks as they occur Make a safe and welcoming threshold Instal LED bulbs Insulate hot and cold water tank  Install cover for key holes + letter box Research with Energy Saving Trust etc  Team up with neighbours on a shared project, e.g. windows, doors, solar, insulation  Ensure paved front gardens drain well  Grant funding for specifics e.g. insulation  Off-set excess emissions | Insulate roof space, incl. flat roof 300mm insulation in loft. Do not compress Insulate under the floorboards Insulate walls internally or externally Check for continuous damp proof course Double or triple glaze windows Review energy provider for ‘Green Option’ Seek out green options for energy, building materials, insulation, maintenance, paint  Independent valves on each radiator Set zero emissions target for 5 or 10 years Make plan to achieve set target  Monitor energy and water use + plan to reduce Solar gain as home heat support and cooling mechanism.  Ensure through air circulation on hot days Shade windows to cool a room  Turn off appliances rather than on standby |

**Land**

|  |  |
| --- | --- |
| Favour insects over insecticides Peat free compost Feed birds Plant and seed share or swop Bat or bird boxes  Let the spring grass grow, mow pathway + cut in autumn Scatter wild flowers Scope to install renewables Collect and use rainwater in water butts  Allow air behind planting against a wall to prevent damp build up. | Make a compost heap Grow vegetables relative to available space  Tool sharing scheme Help a neighbour as neededCreate wildflower meadow Work towards organic gardening Adopt a ‘no dig’ policy  Water vegetables only with can or hidden drip hose *timer?* [rather than sprinkler]  Water during cooler periods of day  Celebrate harvests, climate Sunday  Plant a tree or trees |

**Community and Global Engagement**

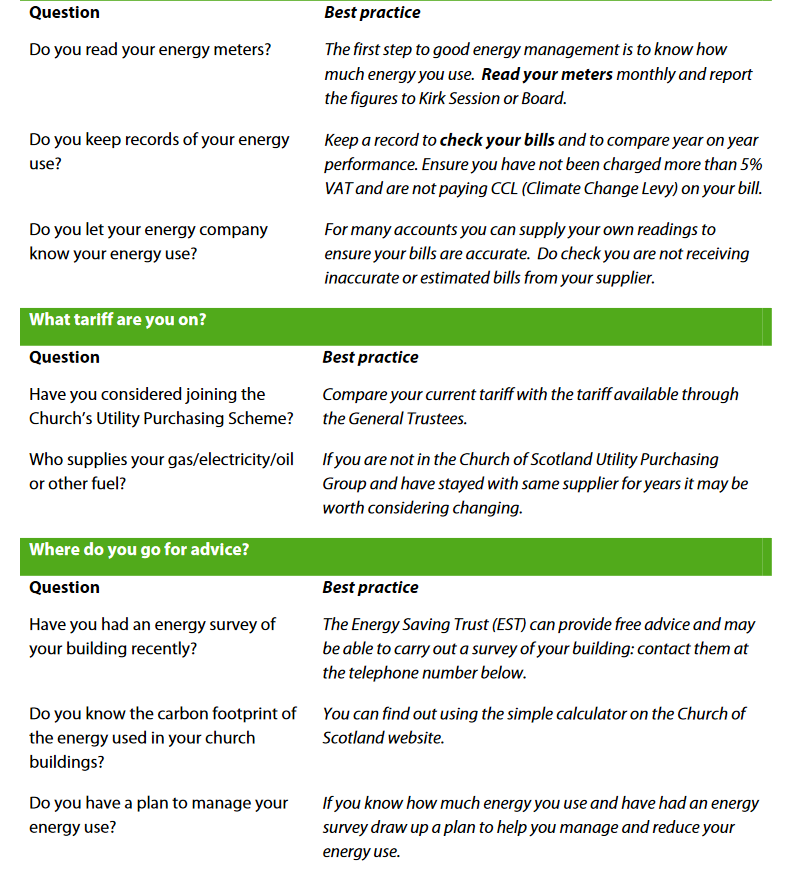
|  |  |
| --- | --- |
| Let a neighbour use some of your spare garden for growing vegetables Is there scope at a locally for your garden expertise? Do you need to off-set some of your carbon emissions with: tree planting, toilet twinning, sustainable farming projects, water on tap scheme, tools for farmers for developing world  Support charities in environmental mission Host meetings (at church) with invited speaker on an eco topic | Start a car share Walking crocodile to school Start or participate in Local farmers market Tend a patch of spare land, [check with Council] – weed, plant bulbs, wildflowers  Responsible recycling Donate unwanted items to charity Help a neighbour with a garden Respond positively to local issues, waste collections, transport, roads etc  Suggest a green scheme to local councillors Host hustings (at church) posing questions on environment issues |

**Lifestyle**

|  |  |
| --- | --- |
| Rethink, Reinvent, Redefine – WRAP UK Love food. Hate waste – WRAP UK Reuse, Recycle, Repurpose, Reduce, Repair Walk/cycle instead of car on short journeys  Take regular walks Car sharing to church When replacing gas boiler consider non-fossil fuel alternatives or add air source heat pump to gas system  Look for grant funding or eco loans  Develop affordable action plan at home for 2-5 years hence  Aim for improvement in air quality and reduced emissions Review every purchase from alcohol to meat to toothpaste. Is it Fairtrade, organic, local, ethical, Eco friendly and sustainable? Avoid: plastics generally, clothes from sweat shops, excess packaging  Recycled plastics may be useful – fencing? Switch off electrical goods when not in use Ditto lighting Assess carbon footprint of leisure activity Consider the environment in any purchase Collect rainwater for watering in the garden Microplastics come from synthetic clothes in washing. Avoid or wash carefully. Select clothes to last not ‘wear and throw’ Recycle or repurpose old clothes  Turn down thermostat by 1°C Porch as barrier to heat loss  Measure personal carbon footprint. | Limit flights to essential only – even work ones may not be necessary Celebrate Earth day or Christian Aid week at home Replace older appliances when no longer energy efficient Buy highest energy rated appliance where appropriate Use bus or train instead of car Electric vehicle to replace older diesel or petrol car may be cost effective  Work from home some days a week  Add extra layer of clothes and lower thermostat Buy seasonal and local food  Animal friendly cosmetics & other goods Avoid food waste  Cook at home and eat together  Knit or sew to make something for the home or yourself Enjoy picnics without debris Make gifts for birthday or Christmas install a sand [egg] timer in the shower Install a brick or sack in the water cistern for reduced flush Use less water; add a nozzle to taps Drink tap water where safe to do so Recycle unwanted furniture to charity  Shop at charity shops for all sorts Put washing outside rather than tumble dry  Ethical banking and investment  Read articles/books on sustainability |

And a paper from **Eco Congregation Scotland**: Greening Church Buildings - <http://www.ecocongregationscotland.org/wp-content/uploads/2012/11/Greening-Church-Buildings.pdf> Extract from Eco-Congregation Scotland publication:

**Ideas for Action: GREENING CHURCH BUILDINGS**



**Annex 8: Some websites to support worship, property, community and global outreach**

**Carbon calculators** *(for a review of Carbon Calculators, see Annex 11)*

* <https://360carbon.org/> 3600 - Calculates Church footprint
* <https://www.carbonfootprint.com/calculator1.html> Carbon Footprint calculators for Individuals and Small Businesses
* <https://carbonsavvy.uk/calculator/> Carbon Savvy - Calculates Your share of national infrastructure emissions
* <https://www.climatecare.org/calculator/> Climate Care carbon calculator – focuses on off-setting
* <https://www.open.edu/openlearn/nature-environment/energy-buildings/content-section-2.4.1> Technical paper on how to Calculate the total heat loss of a house
* <https://carbon-calculator.climatehero.me/?source=GoogleAdwords&gclid=EAIaIQobChMIisHK3LG18AIV45PVCh1LnQsQEAAYAiAAEgJ3BPD_BwE> Climate Hero calculator – shows how to improve on what you are already doing
* <https://footprint.wwf.org.uk/#/> Questionnaire style to find environmental footprint
* <https://www.lner.co.uk/tickets-savings/the-best-way-to-travel/carbon-calculator/> LNER Best Foot Forward – compares environmental impact of modes of transport
* <https://www.gov.uk/guidance/carbon-calculator> The MacKay carbon calculator - provides a model of the UK energy system 9for educational purposes)

**Greening our buildings**

* [www.ired.co.uk](http://www.ired.co.uk) Thermal Imaging Surveys
* <https://greenchristian.org.uk/carbon-footprinting-green-christian-workshop/> Carbon Footprinting – a Green Christian Workshop
* <http://www.ecocongregationscotland.org/wp-content/uploads/2012/11/Greening-Church-Buildings.pdf> Eco Church Scotland – greening church buildings
* <https://wrap.org.uk/about-us> WRAP promotes and encourages sustainable resource use through product design, waste minimisation, re-use, recycling and reprocessing of waste materials.

**Worship resources**

* <https://www.wwdp.org.uk/> World Day of Prayer
* <https://www.climatesunday.org/> Climate Sunday an initiative calling on all local churches across Great Britain & Ireland to hold a climate-focused service on any Sunday before COP26 (November 2021).
* <https://urc.org.uk/latest-news/3785-could-you-hold-a-climate-sunday> Reform magazine article - Could you hold a Climate Sunday?
* <https://greenchristian.org.uk/resources/prayer-guide/> Green Christian – Prayer Guide - contains lots of useful links about a range of related issues

**Politics and Campaigning**

* <https://thetimeisnow.uk/> Use your voice to tell politicians that you want a cleaner, greener, fairer future at the heart of plans to rebuild a strong economy.
* <https://www.reform-magazine.co.uk/2021/04/a-good-question-protest-how-far-would-you-go/> Reform magazine article - Protest: How far would you go?
* <https://www.fairtrade.org.uk/what-is-fairtrade/> Fairtrade - one simple way to spark change
* <https://www.christianaid.org.uk/appeals/key-appeals/christian-aid-week> Christian Aid Week
* <https://ukcop26.org/> Information about the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow on 1 – 12 November 2021 which the UK will host.

**Campaigning and support groups**

* <https://www.climatestewards.org/> Carbon Stewards
* <https://operationnoah.org/> Operation Noah - a Christian charity working with the Church to inspire action on the climate crisis
* <https://christianclimateaction.org/> Christian Climate Action - a community of Christians supporting each other to take meaningful action in the face of imminent and catastrophic anthropogenic climate breakdown - Direct action, public witness for the climate
* <https://christianclimateaction.org/get-involved/regional-groups/> Christian Climate Action – link for local groups
* <https://greenchristian.org.uk/> Green Christian: a community of ordinary Christians from all backgrounds and traditions, who, inspired by faith, work to care for Creation through prayer, living simply, public witness, campaigning and mutual encouragement
* <https://www.theclimatecoalition.org/> The Climate Coalition - the UK’s largest group of people dedicated to action against climate change
* <https://www.theclimatecoalition.org/faith-members> The Climate Coalition – faith members
* <https://www.permaculture.org.uk/> A network empowering people to make the right choices for a sustainable future using a design approach based on understandings of how nature works
* <https://www.permaculture.org.uk/whats-going-on/transition-towns> The Permaculture Association - The Transition Towns network
* <https://greeneruk.org/> Greener UK - a coalition of 12 major environmental organisations, with a combined public membership of over 8 million
* <https://www.christianaid.org.uk/our-work/about-us> Christian Aid - a global movement of people, churches and local organisations
* <https://www.earthhour.org/> Earth Hour - one of the world's largest grassroots movements for the environment.
* <https://globaloptimism.com/> Global Optimism exists to catalyse transformative actions in our world. Founded by Christiana Figueres - Global Optimism works to inspire and catalyse stubborn optimists around the world, to rise to the next level of our abilities, because it’s necessary to do so, and because together, we can.

**Educational resources**

* <https://greenchristian.org.uk/carbon-footprinting-green-christian-workshop/> Carbon Footprinting – a Green Christian Workshop
* <https://greenchristian.org.uk/resources/> Green Christian – General resources (includes worship)
* <https://www.christianaid.org.uk/appeals/key-appeals/christian-aid-week/resources> Christian Aid Week - resources
* <https://www.ecocongregationscotland.org/wp-content/uploads/2020/07/Lets-talk-about-the-climate-emergency-PDF-.pdf> A pack of materials that has been produced as a resource for use by churches to get their congregations talking about climate change, care for creation and how Christians can engage with and support COP26 when it is able to come to Glasgow.
* <https://climatekids.nasa.gov/how-to-help/> Climate Kids is produced by the Earth Science Communications Team at NASA's Jet Propulsion Laboratory.Targeting upper-elementary-aged children, the site is full of games, activities and articles that make climate science accessible and engaging
* <https://www.reform-magazine.co.uk/wp-content/uploads/2021/01/SQ-Feb-20.pdf> **Reform –** Small group study material from URC General Secretary

**Joint Public Issues Team**

* <http://www.jointpublicissues.org.uk/issues/> The issues identified
* <http://www.jointpublicissues.org.uk/wp-content/uploads/2020/03/TTWUD-Flourishing.pdf> a conversation starter - Why you can’t solve the climate crisis without talking about the economy
* <http://www.jointpublicissues.org.uk/economy/> The Economy
* <http://www.jointpublicissues.org.uk/issues/environment/> The Environment
* <http://www.jointpublicissues.org.uk/issues/poverty-and-inequality/> The Marginalised - Poverty and Inequality
* <http://www.jointpublicissues.org.uk/issues/peacemaking/>Peacemaking
* <http://www.jointpublicissues.org.uk/issues/asylum-and-migration/> Welcoming - Asylum and Migration
* <http://www.jointpublicissues.org.uk/issues/politics-and-elections/> Politics and Elections

**Further reading**

* <https://energysavingtrust.org.uk/path-net-zero-overview/> On the path to net zero: an overview
* <https://ruthvalerio.net/publications/saying-yes-to-life-the-archbishop-of-canterburys-lent-book-2020/> Ruth Valerio’s book “Saying Yes to Life” - perfect for individuals and groups to think, reflect, pray and be challenged together.
* [www.christian-ecology.org.uk/bap-env.htm](http://www.christian-ecology.org.uk/bap-env.htm) Baptist Union of Great Britain - A Vision for the Environment
* <https://en.wikipedia.org/wiki/Greta_Thunberg> Wikipedia article about Greta Thunberg
* <https://www.kateraworth.com/> Kate Raworth – Exploring Doughnut Economics

**There’s more – add your own ideas and suggestions.**

**Annex 9: Sample On-line Carbon Calculators**

**A review of some carbon calculators**

All the following ‘carbon calculators’ are on-line with many free to use. Please note, any ‘recommended’ comment is from other sources and not Green Apostle or URC.

**Carbon footprint calculators**

<https://www.climatestewards.org/> - for the church audit and assessment

<https://www.carbonfootprint.com/calculator1.html> - for personal analysis

**360o** <https://360carbon.org/> **RECOMMENDED for Buildings**

This calculator is useful to calculate a **Church footprint**

The best way to use this website is to sign-up for a user account so you can save your church's or non-profit's carbon footprint and track it over time.

Needs a fair amount of detailed information about usage including travel, and utilities as well as waste disposal

Creating new carbon footprints for organisations is dependent on having a user account.

**Carbon footprint**  <https://www.carbonfootprint.com/calculator1.html> **RECOMMENDED for individuals**

# This site gives carbon calculators for Individuals and Small Businesses

**Individuals** - Following your calculation, you can offset / neutralise your emissions through one of our climate-friendly projects.

Good for individuals. Needs a fair amount of detailed information about usage including travel, and utilities as well as leisure activities, food consumed, etc

**Small Businesses** – users must create an account first before accessing this facility (we did not wish to create an account, so we have not assessed this facility)

#### The facility is available with three versions - Basic - Micro Business Version (single building), Premium - Small Business Version (single building), and Elite - Small to Medium Size Business Version (**Multiple Buildings & Sites)**

**Carbon Savvy** [**https://carbonsavvy.uk/calculator/**](https://carbonsavvy.uk/calculator/)

### This calculator calculates your share of national infrastructure emissions

The **taster calculator** takes just 1 minute and the **popular calculator** 5 minutes. Both are based on information that most people have in their heads. The **full calculator** requires having your fuel bills to hand and takes around 30 minutes, giving you the satisfaction of picking up the smallest of changes you make in your lifestyle.

Taster Carbon Calculator : Easy to use – based on **life-style choices rather than numerical data**

Popular Carbon Calculator : Easy to use – based on life-style choices with some **additional (numerical) details needed**

**Climate Care carbon calculator** <https://www.climatecare.org/calculator/>

By using this carbon calculator to offset your footprint, you’ll be supporting best practice projects that help the environment and local communities worldwide.

It calculates an amount you to pay to a “social justice” to offset your emissions

A good idea but lacking in instructions and not easy to use.

I would not recommend this calculator

# **Open University** <https://www.open.edu/openlearn/nature-environment/energy-buildings/content-section-2.4.1> **TECHNICAL (quite advanced)**

# A technical paper on how to calculate the total heat loss of a house; part of a free course on “Energy in buildings”

**National Energy Foundation** <http://www.carbon-calculator.org.uk/>

This calculator is designed to enable estimated carbon footprints to be calculated by most UK organisations

Too complex and not appropriate

**Personal Environmental Footprint ‘Calculators’**

**Climate Hero Carbon Calculator** <https://carbon-calculator.climatehero.me/?source=GoogleAdwords&gclid=EAIaIQobChMIisHK3LG18AIV45PVCh1LnQsQEAAYAiAAEgJ3BPD_BwE> **HIGHLY RECOMMENDED**

The questions are divided in three sections: **Housing, Travel** and **Consumption**

**Based on life-style rather than numerical data, this calculator gives a comparison of your carbon footprint with world averages. More importantly it gives an analysis of what you are doing right to reduce your carbon footprint, and what you can do to reduce it further.**

**WWF** <https://footprint.wwf.org.uk/#/> **RECOMMENDED**

A questionnaire to find out how big your personal environmental footprint is compared to the world and UK averages. Questions relate more to **life-style** **rather than numerical data,** and do not depend on detailed figures

**LNER Best Foot Forward** <https://www.lner.co.uk/tickets-savings/the-best-way-to-travel/carbon-calculator/> **RECOMMENDED**

Not a footprint calculator but the user can instantly compare the environmental impact of any journey by train, car and plane by entering journey details. Results show just how little impact travelling by train has on the environment, compared to going by car or plane.

Simple to use and of educational value.

**Environmental Pathways to Reducing Carbon Impact**

**The MacKay Carbon Calculator** <https://www.gov.uk/guidance/carbon-calculator> **RECOMMENDED for educational purposes**

The MacKay Carbon Calculator from this government website provides a model of the UK energy system that allows you to explore pathways to decarbonisation, including net zero by 2050.

You need to scroll down to open the calculator My 2050

You can then find your pathway to reduce UK greenhouse gas emissions to Net Zero by 2050 (-100% in the CO2e meter) by:

* choosing your level of ambition from 1 (minimum effort) to 4 (extreme effort) for each of the levers of decarbonisation, namely transport, buildings, industry, ccs & hydrogen, land, bioenergy & waste
* limiting the number of extreme Level 4s you need to a few you think are most important

**Further Reading**

<https://globaloptimism.com/> - Christiana Figueres

<https://climatekids.nasa.gov/how-to-help/>

<https://en.wikipedia.org/wiki/Greta_Thunberg>

<https://wrap.org.uk/about-us>

**URC Reform magazine:** <https://www.reform-magazine.co.uk/>

**Reform –** <https://www.reform-magazine.co.uk/wp-content/uploads/2021/01/SQ-Feb-20.pdf>

**Green Christian:** <https://greenchristian.org.uk/>

**Green Christian – Prayer:** <https://greenchristian.org.uk/resources/prayer-guide/>

**Green Christian** - **Resources**: <https://greenchristian.org.uk/resources/>

**Annex 10 Remit of Task Team 2021**

* To prepare an environment policy that is faith based and science based, God centred and recognises the anthropogenic nature of climate change and its impact on the future of the world and all its inhabitants;
* To seek out best practice, research current science and recognise the precariousness of life on the planet during this century.
* To maintain contact with Tim, Synod Clerk and Jamie, Synod Moderator and Simon, Synod Treasurer and other key people in the formulation of the policy.
* Present a proposed Synod Environment Policy to Synod at its October 2021 meeting;
* To bring an accompanying proposal on the means of implementing the policy for all churches and congregations including a one, three and five year plan for the Synod.

**Annex 11** **Suggested Targets for Years 1, 2 and 5 for Green Apostle and Churches**

**Yorkshire Green Apostle with Task team with Framework for churches**

|  |  |  |
| --- | --- | --- |
| **2021** | **2022** | **2026** |
| 1. register Yorkshire Synod as an Eco Synod in 2021  2. prepare and circulate an environment policy framework for churches. 3. liaise with Synod support networks such as Communications Mission and IT.  4. work towards achieving Bronze award as an Eco Synod in 2021 or early 2022.  5. engage with and work with churches not yet registered with Eco church to support them in their journey.  6. on-going support for churches already registered with Eco church towards achieving their next award, be that bronze, silver or gold. | 1. support churches as they work towards the introduction of an environment policy for their church and congregation  2. work with churches as they undertake an environment audit of their church and church buildings and manse, as appropriate. Direct churches towards recommended easy to use, audit sites that encourage churches to record their energy and water use which can then be used to calculate an initial assessment of CO2 emissions.  3. prepare and circulate a document for churches that will record energy and water use enabling churches to compare year on year reduction in CO2 emissions.  4. encourage churches to appoint a Environment Champion who may create a church-wide team that will liaise across church groups offering training and support in collating information towards energy reduction targets for their church.  5. communicate fully with Environment Champions individually and collectively to share achievement, problem-solving, best practice and proposals with will encourage and support churches’ work in caring for God’s creation. Schedule bi-annual event for sharing and caring.  6. arrange an annual Green Apostle Team event for all environment champions/ Teams with a keynote speaker from URC national network or a speaker from an outside organisation such as A Rocha or other climate supporting organisation.  7. work alongside other Synod committees such as Property and Finance in support of churches proposing or preparing submissions for grant or loan funding. Also, to support churches undertaking fund-raising for events in support of proposed environmental improvements to church property for which they are responsible. Proposals include, building repairs, alterations, green/clean energy installation proposal, water-saving measures. 8. collate information from churches as it comes available | 1. monitor change and progress across all churches and report to Synod on an annual basis.  2. continue to support churches during their energy reduction and water-saving transition period  3. assist churches in celebrating eco-achievements during the previous year or going forward.  4. assist churches with media and press communications in celebration of eco-changes  5. Prepare a ‘progress party’ of worship and celebration for 2026, then for 2030. |