

## GENERAL SYNOD

## Energy Toolkit 2020 Preliminary Summary

## Summary

At the November meeting of General Synod, the Routemap to Net Zero Carbon was shared with all members. This paper gives a brief estimate of a starting point: the carbon footprint of the Church of England buildings in 2020 (estimated at 475,000 tonnes CO<sub>2</sub>e).

The data below is based on data collected in the first year of the Church of England's 'Energy Toolkit'. This toolkit was created and developed by the Research and Statistics Team to help parishes, schools, and dioceses measure their carbon footprints.

The figures below have been ascertained using a basic level of estimation, with a more sophisticated estimation process ongoing in preparation for publishing the full "Energy Toolkit Report 2020" in February 2022. Therefore, data below should not be viewed as firm figures.

The key message from this data is the high importance of schools (estimated just over half of the Church of England's total net footprint in 2020) in achieving Synod's goal of becoming net zero carbon by 2030. A building's carbon footprint depends on its size, how many hours a week it is heated, and how 'clean' the heat source used is: our thousands of schools are large, busy buildings, heated all week round, generally with oil or gas boilers.

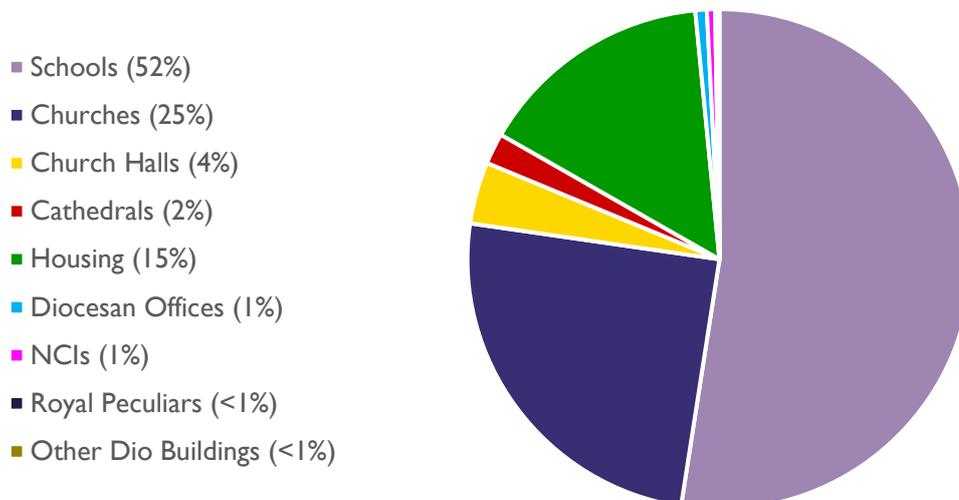
## Energy Toolkit Findings

- Below is an initial review of the data collected from the new Energy Toolkit for 2020. Table 1 highlights the response rates and Total Estimated Net CO<sub>2</sub>, which stands at 475,000 tonnes CO<sub>2</sub>e for all buildings within the Church of England. Figure 1 highlights the percentage contribution of each building type to the total estimated net footprint of all church buildings.

a) Table 1: Estimated net carbon footprint for all building types, calculated from data collected from the Energy Toolkit.

Building Type	Number of Buildings	Response Rate	Total Estimated Net CO <sub>2</sub>
Churches	15,500	23%	118,000
Church Halls	3,000	17%	19,000
Housing	9,500	40%	72,000
Schools	4,000	13%	249,000
Diocesan Offices	41	49%	3,500
Cathedrals	42	12%	9,500
Royal Peculiars	8	0%	700
TEIs	22	0%	N/A
Other Diocesan Buildings	30	43%	600
NCIs	3	33%	2,500
<b>Total</b>	<b>32,000</b>	<b>26%</b>	<b>475,000</b>

b) Figure 1. A graphical representation of the percentage contribution of different building types to the total estimated net footprint of all Church of England buildings.



## Reliability Issues

2. There are several reliability issues to be noted with the data presented above:

- a) Due to national lockdowns in 2020, many of the estimated total tonnes CO<sub>2</sub>e are lower than they would be in typical years. Using Churches and Church Halls as an example, their combined estimated value of 137,000 tonnes CO<sub>2</sub>e would be closer to 189,000 tonnes CO<sub>2</sub>e in a typical year.
- b) The figure for the total number of buildings in the Church of England should be taken with a level of caution.
  - The total number of church halls nationally is currently not known, however, data collected in both 2019 and 2020 estimated that number to be around 3,000.
  - The figure of 9,500 houses has been estimated from housing lists received from two-thirds of dioceses.
  - The list of 'Other Diocesan Buildings' is compiled at the discretion of each diocese and may grow.
- c) The estimated net carbon footprint of schools will change as more data is being gathered in preparation for the publication of the 'Energy Toolkit Report 2020'.
- d) Despite low response rates for certain building types, it is possible to estimate footprints for some (e.g., Cathedrals and Royal Peculiars) due to other held data. However, regarding TEIs, no data is currently held that would aid the estimation process, which is why no estimate has been provided.

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January 2022

Published by the General Synod of the Church of England  
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