

Northamptonshire Healthcare NHS Foundation Trust Carbon Footprint Report (2017/2018)

Prepared by: Loreus Ltd
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Loreus Ltd have been contracted to provide ongoing support to embed sustainability throughout the Trust's operations. As part of this ongoing support, Loreus Ltd have calculated the Trust's carbon footprint for the 2017/18 financial year.

Executive summary

For the 2017/18 financial year, the Trust has made a 24.79% reduction in direct carbon emissions compared with the 2011/12 baseline year. The Trust is on target to achieve its 2020 target of a 28% reduction in direct carbon emissions compared with a 2011/12 baseline. Carbon emissions resulting from electricity & gas consumption have reduced by 27.76% and 18.00% respectively when compared with the 2011/12 baseline. There have been increases in the carbon emissions resulting from water consumption (+33.33%) & waste production (5.50%). Carbon emissions resulting from Travel have seen a 30.73% decrease when compared with the baseline year. The carbon emissions resulting from procurement have seen the single largest increase since the baseline year (+74.51%). This has been driven by a £6,639,535 increase (inflation adjusted) in procurement spend over the 2017/18 financial year compared to the baseline. However, there is a reduction in total procurement spend for 17/18 compared with last year.

Direct carbon footprint

The direct footprint total for the 2017/2018 financial year amounts to 8,859 tCO₂e (tonnes of CO₂ equivalent), which is a 24.79% reduction from the baseline year and a 0.98% reduction compared with the previous financial year (2016/2017).

Table 1 summarises the Trust's carbon footprint for the current year and previous years, including the baseline year (2011/2012).

Source	Carbon emissions (tCO ₂ e)					% change from baseline
	2011 / 2012 (baseline)	2014 / 2015	2015 / 2016	2016 / 2017	2017/2018 (current)	
Electricity	5,411	5,045	3,982	3,889	3,909	-27.76%
Gas	3,834	3,038	3,157	3,124	3,144	-18.00%
Water	69	61	84	86	92	+33.33%
Waste	18	13	19	21	19	+5.50%
Travel	2,447	1,834	1,815	1,827	1,695	-30.73%
Direct footprint total	11,779	9,991	9,057	8,947	8,859	-24.79%
Procurement	11,069	18,843	21,445	20,158	19,316	+74.51%

Table 1 – NHFT summary of carbon footprints for the current & previous years.

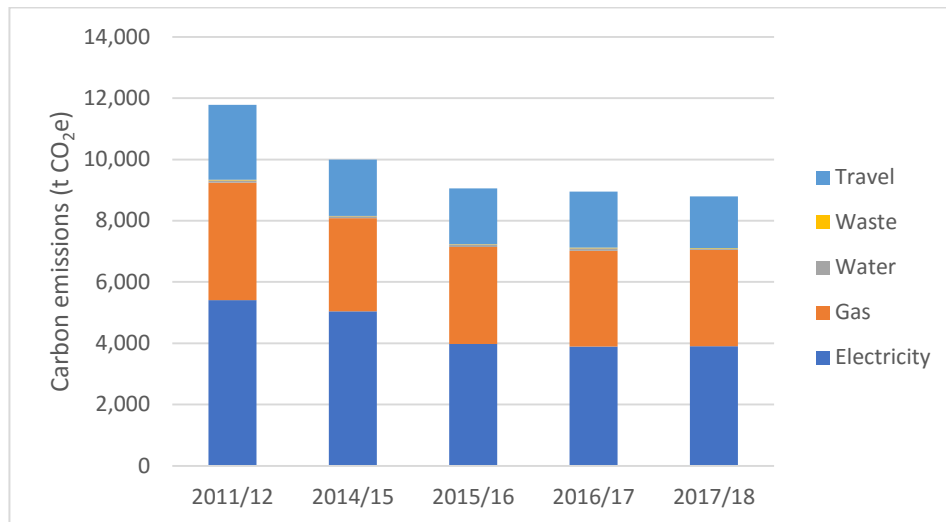


Figure 1 – Summary of the relative contributions to the Trust’s total direct carbon footprint
 Note: the contribution from waste & water is very small compared to the other areas.

Figure 1 above, highlights the relative contributions to the Trust’s direct carbon footprint. While electricity remains the largest individual contributor to the Trust’s total direct footprint, it is the area which has seen the largest reduction since the baseline year. This reduction is partially driven by internal efficiency improvements made by the Trust but also by de-carbonisation of the electricity grid, as renewable sources are increasingly used to generate electricity e.g. solar power and onshore/offshore wind.

Gas consumption has been broadly consistent since 2014/15 with increases and decreases in line with yearly variation, e.g. colder winters and milder summers will typically increase gas consumption and vice-versa.

Water consumption carbon emissions have seen a slight increase in 2017/18 (92 tCO₂e) compared with 2016/17 (86 tCO₂e). Unfortunately, there has been an issue with the main water meter to one of the Trust hospitals during 17/18, this has meant that estimates have been used to cover the missing period.

Carbon emissions resulting from travel within the Trust have seen a decrease over the 2017/18 financial year, down to 1,695 tCO₂e compared with 1,827 tCO₂e in 2016/17, a decrease of 7.22%. there are two factors behind this reduction, the first is a decrease in the total number of business miles travelled by Trust staff, 4,756,927 miles in 2017/18 compared with 4,817,734 miles in 2016/17. The other reason for the emissions decrease is the reduction in the conversion factor used to calculate CO₂ emissions resulting from travel, primarily cars, which constitute the majority of the Trust’s business miles. The conversion factors used to calculate the Trust’s carbon footprint are provided by the NHS Sustainable Development Unit (<https://bit.ly/2yf3w0J>). the road travel conversion factor used in 2016/17 was 0.2245 kg CO₂e per km while in 2017/18 the published factor was reduced to 0.2214 kg CO₂e per km. This factor is produced using an average of the emissions resulting from cars on the road in the UK and as time progresses, older less efficient cars are removed from circulation and replaced with more efficient modern cars, leading to a reduction in the published emission factor for car travel.

Like all other NHS organisations, NHFT has adopted a 2020 carbon reduction target in line with the NHS Carbon Reduction Strategy for England, which details the reduction required by the NHS to meet legal targets set out in the Climate Change Act (<https://tinyurl.com/y76d6ltp>).

Figure 2 shows the progress made by NHFT towards the 2020 target. The figure shows the Trust’s carbon emissions (green line) in addition to the reduction required to achieve the 2020 target (red line). As of this report, the Trust has currently made a 24.79% reduction in total carbon emissions compared with the 2011/12 baseline and is on target to achieve the 28% reduction by 2020.

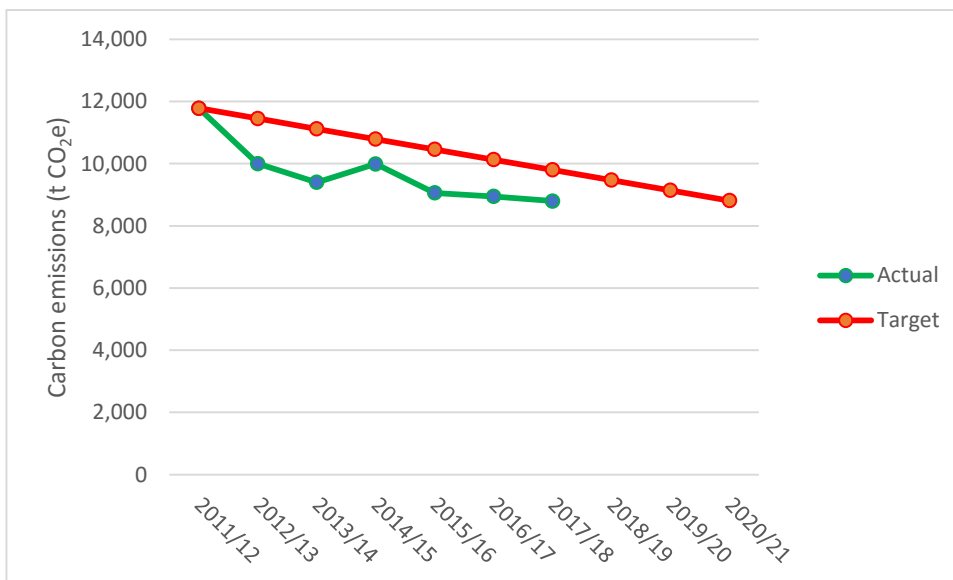


Figure 2 – progress of the Trust towards its 2020 carbon reduction target.

Procurement

Table 2 contains the annual total procurement spend for the Trust from the baseline year (2011/12) through to 2017/18.

Emissions from procurement have significantly increased from the baseline year (+74.51%) because of changes within the organisation. For example, services previously provided in-house, and therefore captured within the direct carbon emissions are now contracted, thus moving their emissions into the procurement element of the carbon footprint.

The total annual procurement spend for the 2011/12 financial year has been adjusted for inflation using the Bank of England’s online tool¹. This is to provide a more accurate comparison with the 2017/18 expenditure.

1. (<https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator>)

	2011/12	2014/15	2015/16	2016/17	2017/18	Change from baseline	% change from baseline
Total annual spend (£)	44,606,476	51,586,825	59,361,374	58,994,705	56,529,311	11,922,835	+26.73
Total annual spend (£) (inflation adjusted)	49,889,776	53,001,631	60,391,468	58,994,705	56,529,311	6,639,535	+13.31
Total emissions (t CO ₂ e)	11,069	18,843	21,445	20,158	19,316	8,247	+74.51

Table 2 – change in the Trust’s procurement spend between 2011/12 and 2017/18.

As can be seen from table 2 above, the total carbon emissions arising from procurement in 2017/18 are 74.51% greater than the emissions arising from procurement in 2011/12. This growth in carbon emissions is primarily driven by the increased annual procurement spend. As mentioned previously, NHFT has outsourced many services since 2011/12 which has in turn contributed to the increased procurement spend.

Table 3 below highlights the main areas of increased expenditure (greater than £1,000,000) between 2011/12 and 2017/18 against the Trust’s internal account codes. Positive values represent an increase in expenditure from 2011/12 to 2017/18, while negative values represent a decrease in expenditure.

Account code description	Change in spend (11/12–17/18)
Other general supplies and services	1,895,742
Misc expenditure	1,226,781
Legal/Prof fees	1,153,938
Audit fees external	1,091,828

Table 3 – summary of the largest changes in spend between 2011/12 and 2017/18