

# Framlingham Sustainability Strategy 2022-2030

Draft for discussion

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On behalf of the Framlingham Town Council Environment and Biodiversity Working Group (ESBWG)

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## 1 Introduction

Declaration of Climate Emergency

Strategic Plan 2021-2025:

- Priorities
  - Develop an Environment Protection Plan (could this document be the basis?)
  - Ensure the Neighbourhood Plan aligns with the EPP
  - Work with ESC to achieve CO2 emissions reduction of 30% from 2010 baseline by 2025 and 75% by 2050
  - Lead by example
  - Recycling & re-use
  - Increase bike use, walking & visitor bike hire; reduce car use in town centre; cleaner/green transport initiatives
  - Understand possibilities for:
    - Tree protection & planting
    - Wild flower meadows
    - Protection of wildlife corridors
    - Plastic-bag free town
    - Low energy housing
    - EV charging
- Success measurement
  - Establish ESBWG
  - Review Neighbourhood Plan 2022 to include EPP policies
  - Carbon reduction action plan in place
  - Community involvement and commitment
  - Increased range & size of recycling facility
  - Cycle paths opened & maintained & more footpaths in use
  - Clear evidence of change
    - More trees, wildflowers, meadows, species etc
    - *Change in measured/estimated CO2/CO2e emissions?*
  - Community satisfaction with appearance of parks & public spaces

**Why 2022?** Because we're already most of the way through 2021!

**Why 2030?** Key dates for emissions targets, endpoint of next FTC strategic plan? (2021-2025, 2026-2030?)

## 2 Proposed Sustainability Framework

These priorities imply a set of 'Sustainability' related themes:

- Emissions reduction (climate change *mediation*) – reducing our emissions footprint
- Biodiversity enhancement – enhancing the natural world
- 'Least trace'<sup>1</sup> living – reducing waste and increasing re-use
- Resilience (climate change *adaptation*) – reducing the risks to our way of life that climate change will bring

These are set out in more detail in the following table. Actions that deliver objectives under one theme are likely to have benefits for other themes as the table tries to clarify.

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<sup>1</sup> Draws on 'Leave no trace' <https://lnt.org/why/7-principles/>

Table 1: A proposed Sustainability Framework for Framlingham

Theme	Detail	Targets (examples – tbd)	Stakeholders
<b>Emissions reduction</b>	Reduce the total Greenhouse Gas (GHG) emissions (measured in T CO2e) of the parish/town in line with the latest scientific pathways to stay within 1.5C warming	Reduce total territorial CO2e emissions by 30% (2010-2025) and 75% (2010-2050) Reduce total consumption-based CO2e emissions by 30% (2010-2025) and 75% (2010-2050) All Town retailers to specify the CO2e footprint of each product by 2025.	Residents, commercial, retail & agricultural businesses, schools, visitors FTC, ESC & SCC Gas & electricity distribution companies Local energy co-operatives?
<b>Biodiversity Enhancement</b>	Increase the biodiversity of the Town to improve residents' quality of life; attractiveness to visitors; increase 'ecosystem services' (e.g. flood protection, shading, pollination, natural pest control) and 'make space for nature' <sup>2</sup> Increase carbon sequestration of hard-to-reduce emissions	?	Residents, commercial, retail & agricultural businesses, schools FTC, ESC & SCC Greener Fram Suffolk Wildlife Trust
<b>'Least trace' living</b>	Reduce waste and increase the circularity ( <a href="#">repair</a> , <a href="#">re-use</a> , <a href="#">recycle</a> ) of the Town's economy Ensure that no Town residents are exposed to unsafe levels of air pollution ...?	Reduce the volume of domestic non-recyclable waste collected by x% by 2030? Reduce the volume of commercial non-recyclable waste collected by x% by 2030? Reduce the number of retailers offering single-use plastic bags to zero by 2030? Double the number of locally-sourced products available in the town & market by 2030? Reduce exposure to unsafe levels of air pollution to zero by 2030	Residents, commercial, retail & agricultural businesses, schools, visitors FTC, ESC & SCC Greener Fram <a href="#">WRAP</a>
<b>Resilience</b>	Increase the Town's ability to adapt to the probable consequences of climate change under a 1.5C or 2C warming future	Reduce the risk of climate change related damage to zero by 2030	Residents, commercial, retail & agricultural businesses, schools, visitors FTC, ESC & SCC

<sup>2</sup> See <https://www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today> and <https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca>

The next sections take each of these themes in turn, using a phased method of addressing each but ensuring that none are tackled in isolation to ensure as many ‘win-wins’ across the themes as possible. Current proposals for actions are listed in each section.

Cutting across these would be communication activities which try to engage the community in the themes and actions.

### 3 Emissions reduction (climate change *mediation*)

Current targets:

- Work with ESC to achieve CO2 emissions reduction of 30% from 2010 baseline by 2025 and 75% by 2050
- Increase bike use, walking & visitor bike hire
- Reduce car use in town centre

Clarifications needed:

- CO2 or CO2e?
- Council operations vs ‘whole town’
- Territorial or consumption-based emissions
- Which emissions sources are the ‘worst’ and which can FTC and the community effectively address? (see e.g. the [Net Zero Hollesley](#) Action Plan and Suffolk County Council’s Climate Emergency Plan [Technical Report](#) by Ricardo Energy & Environment<sup>3</sup>)
- Are targets ambitious (enough)?

Suffolk CC report notes:

“Carbon neutrality, also known as net zero emissions, means a balance between emissions to the atmosphere and removals of emissions from the atmosphere (for example, from forests, carbon capture and storage etc). For this project, carbon neutrality has been defined in its broadest sense, meaning a net balance between emissions of all greenhouse gases (not just carbon dioxide) to the atmosphere as a result of activities in Suffolk<sup>4</sup> and GHG emissions removals taking place in Suffolk.”

#### 3.1 Emissions reduction action planning

The following table gives an example of a phased planning framework based on Bristol City’s Smart Energy City’ approach<sup>5</sup>. This framework can be used to plan actions under each of the themes. Phase 1 actions are likely to be research/audit oriented whereas Phase 2 and 3 actions will need to ensure change happens. Phase 2 might need to focus on ‘moderate’ change that is easier to achieve while Phase 3 might need to focus on bigger changes that are harder to achieve.

Table 2: Phased approach to emissions reduction action planning

	Phase 1 (2021-2023)	Phase 2 (2023-2025)	Phase 3 (2025-2030)
<b>Doing</b>	<ul style="list-style-type: none"> <li>• Estimate 2010 baseline for FTC and ‘Framlingham’</li> <li>• Estimate 2021 baseline for FTC and ‘Framlingham’</li> <li>• Define targets</li> <li>• Develop action plan</li> <li>• Define ‘impact’</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring impact</li> <li>• Phase 2 actions</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring impact</li> <li>• Phase 3 actions</li> </ul>

<sup>3</sup> <https://www.suffolk.gov.uk/assets/planning-waste-and-environment/Pledge-to-climate-emergency-declaration/suffolk-climate-emergency-plan-technical-report.pdf>.

<sup>4</sup> “More specifically, this report focuses on ‘Scope 1’ emissions (direct GHG emissions in Suffolk) and ‘Scope 2’ emissions (emissions that may occur outside of Suffolk as a result of electricity consumption in Suffolk).”

<sup>5</sup> <https://www.cse.org.uk/news/view/2069>

	assessment method		
<b>Preparing</b>	Phase 2 actions	Phase 3 actions	Future actions
<b>Exploring</b>	Phase 3 actions		

## 3.2 Baselineing our emissions

In order to provide a clear baseline from which to set targets and measure our progress against them we need to clarify which emissions we are including and for whom. The following sections are an attempt to do this with currently available data.

### 3.2.1 Baselineing FTC operational emissions 2021

These are the emissions that result from the Council's own activities. There is currently no requirement for Town or Parish Councils to report these emissions but the UK's Streamlined Carbon Reporting (SECR (BEIS/DEFRA 2019)) requirements now apply to most large businesses and could be used as a template. SECR itself is based on the international and widely used Greenhouse Gas Protocol<sup>6</sup> emissions reporting categories which have been designed to ensure all emissions from all sources and gases relevant to the Kyoto and Paris agreements are included (see Section 9.2, GHG gases).

The reporting categories are organised into Scope 1, 2 and 3:

1. **Scope 1** emissions are those produced by direct fuel combustion such as gas boilers, fleet vehicles; by physical or chemical processes and from fugitive emissions such as air-conditioning, refrigeration or pipework leaks.
2. **Scope 2** emissions are those that come from purchased or acquired electricity, steam, heat and cooling.
3. **Scope 3** emissions are indirect emissions that derive from activities of the organisation from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, employee commuting, procurement (i.e. supply chain), leased assets, waste and water.

The sub-categories of the Scopes used for reporting are summarised in Table 3 with examples of how they might apply to FTC. The table is replicated with more detailed explanations in Table 10 in Appendix 9.2 (9.3).

Table 3: GHG Protocol Scopes 1-3 and applicability to FTC

Scope	Category	FTC examples
<b>Scope 1</b>	Stationary combustion	Gas purchase for properties owned or leased
	Mobile combustion	Direct purchase of fuels for FTC owned vehicles
	Process emissions	Not applicable?
	Fugitive emissions	Leaks from owned gas pipes or cooling refrigerants e.g. when undergoing maintenance
<b>Scope 2</b>	Purchase of electricity from the grid	Electricity purchased for properties owned or leased
	Purchase of steam and hot water	Not applicable?
<b>Scope 3 (Upstream)</b>	Purchased goods and services	Purchase of paper, printer ink, appliances, stationary, catering, cleaning services, maintenance services
	Capital goods	Purchased equipment, machinery, buildings, facilities, and vehicles?
	Upstream fuel & energy (non Scope 1 & 2)	Adds a small uplift to the emissions due to gas & electricity purchase
	Upstream transportation and distribution	Delivery of products purchased to FTC
	Waste generated in operations	Emissions resulting from waste collected from FTC assets
	Business travel	Travel on FTC business – e.g. attendance at non FTC meetings etc (claimed as expenses?)
	Employee commuting	Not strictly applicable but could be used to report

<sup>6</sup> See <https://ghgprotocol.org/corporate-standard>

		attendance by councillors at FTC meetings
	Upstream leased assets	e.g. emissions from cleaning or maintenance services of leased offices
<b>Scope 3 (Downstream)</b>	Downstream transportation and distribution	Potentially the place to report emissions due to transport services commissioned by FTC?
	Processing of sold products	N/A?
	Use of sold products	N/A?
	End-of-life treatment of sold products	What does FTC sell?
	Downstream leased assets (operation)	Market Square/Market?!
	Franchises (operation)	N/A?
	Investments (operation)	N/A? Bank-held savings etc may count?

Currently the GHG Protocol approach does not include integrated reporting of carbon capture (sequestration) through, for example, land use and land-use change. These ‘negative emissions’ can however be reported as ‘other information’ and may be relevant for some FTC assets. These ‘-ve’ emissions values can then be presented alongside Scope 1-3 emissions as is commonly done at national level (see e.g. (Climate Change Committee, 2020)). As an example, 30-year mixed native woodland captures around 10 tonnes of CO<sub>2</sub>e per hectare per year while grassland captures ~1 T CO<sub>2</sub>e/ha/year<sup>7</sup>. Other values are available for hedgerows, species rich meadows, ponds and marshland (e.g. the Mere) and other land-uses. Some organisations are therefore able to report these sequestrations as internal ‘offsets’.

3.2.2 ‘Framlingham’ baseline 2010 and measuring change

Before estimating Framlingham’s emissions, we need to define the area we are referring to. In this section we refer to the civil parish of Framlingham as shown in the map in Figure 1. This includes the town and surrounding agricultural land and hamlets up to the parish boundary.

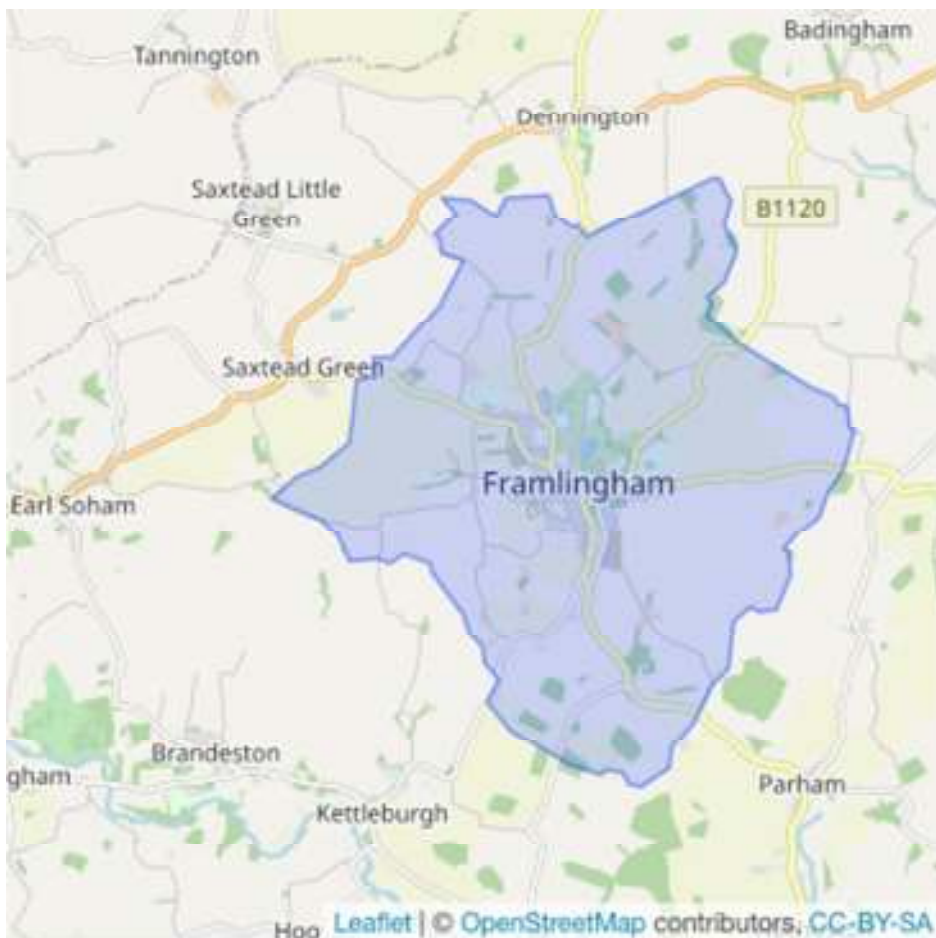


Figure 1: Framlingham civil parish boundary

<sup>7</sup> <http://publications.naturalengland.org.uk/publication/5419124441481216>, Figure 3

The only emissions related data that is likely to be available for 2010 as this level of geography is annual residential gas and electricity consumption data via

- <https://www.gov.uk/government/collections/sub-national-electricity-consumption-data> and
- <https://www.gov.uk/government/collections/sub-national-gas-consumption-data>

This can then be compared with residential energy use data for later years from the same sources to measure change over time.

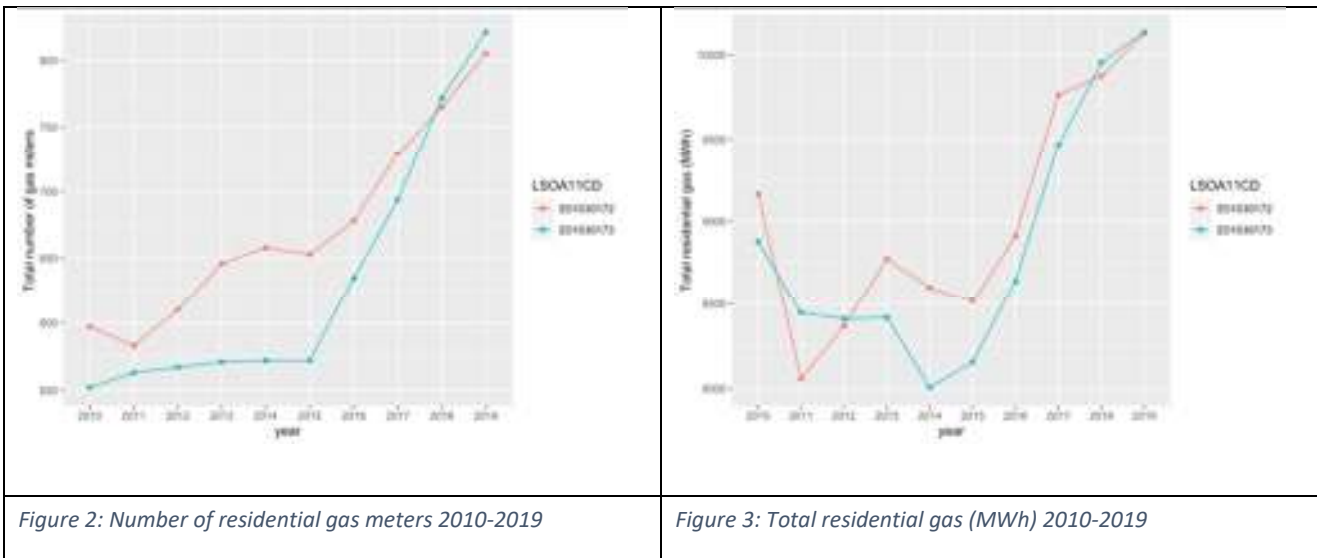
According to the BEIS 2010 data and defining Framlingham according to the parish boundary shown in Figure 1:

- Total residential gas use: 18,043,008 kWh (number of gas meters: 1149)
- Total T CO2e from residential gas use: 3,328 T
- Total residential electricity use: 7,049,024 kWh (number of electricity meters: 1498)
- Total T CO2e from electricity gas use: 3,421 T

By 2019 which is the most recent data available, these values were:

- Total residential gas use: 20,261,232 kWh (number of gas meters: 1626 – an increase of 40%)
- Total T CO2e from residential gas use: 4,209 T
- Total residential electricity use: 6,885,595 kWh (number of electricity meters: 1945 – an increase of 30%)
- Total T CO2e from electricity use: 2,154 T

Overall, total residential gas use increased by 11% between 2010 and 2019 (there are 40% more meters - probably due to new builds) and the emissions footprint of gas increased slightly from around 0.18 kg CO2e/kWh to 0.21 kg CO2e/kWh<sup>8</sup>. As a result, *emissions due to residential gas use increased by over 25%*<sup>9</sup>. Figure 2 to Figure 4 show how the number of meters, total residential gas use and mean gas use per meter have changed over time for the two Census LOSAs that comprise the civil parish. E01030173 comprises the town centre while E01030172 comprises the surrounding area (see Section 9.1.1, Census LSOAs). This data will not include houses added after 2019.



<sup>8</sup> It now includes upstream extraction & processing emissions

<sup>9</sup> Details of calculations and statistical code: <https://dataknut.github.io/energyMapping/mappingParishes.html>



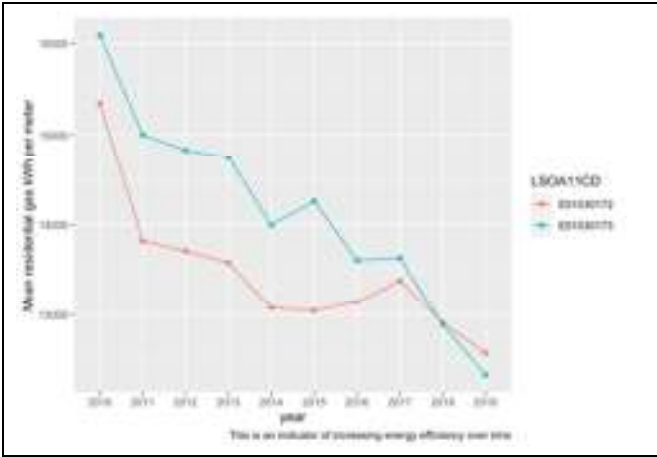


Figure 4: Mean kWh residential gas per meter 2010-2019

Despite a 30% rise in the number of electricity meters, total residential electricity use **fell** by about 2% during the same period (see Figure 5 to Figure 7). However, *emissions due to residential electricity use decreased by 37%* because the emissions footprint of grid electricity has fallen sharply from around 0.49 kg CO<sub>2</sub>e per kWh to 0.31 kg CO<sub>2</sub>e/kWh due to the increase in renewable generation and the phasing out of coal.

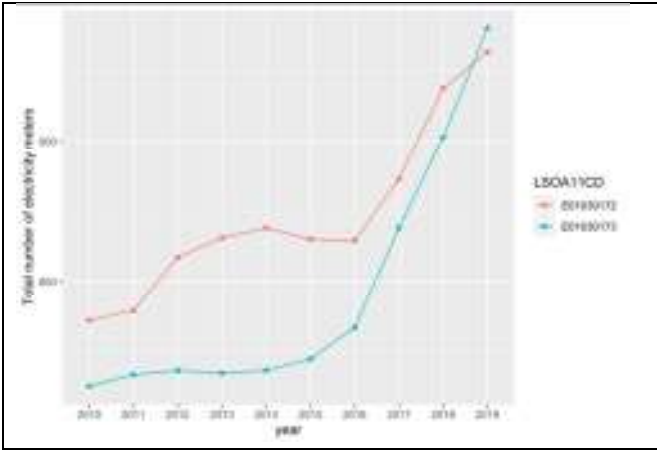


Figure 5: Number of residential electricity meters 2010-2019

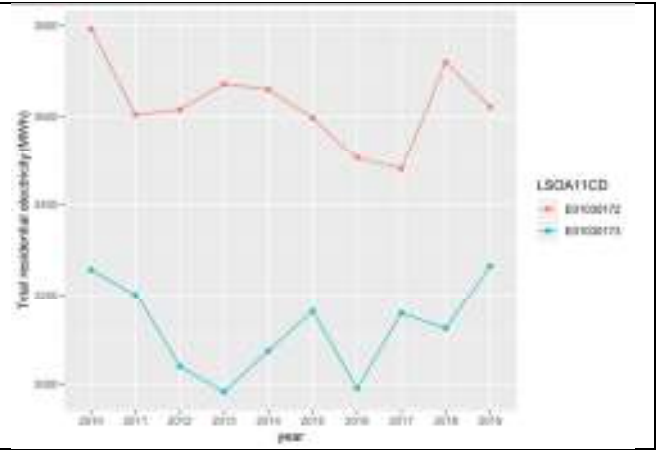


Figure 6: Total residential electricity (MWh) 2010-2019

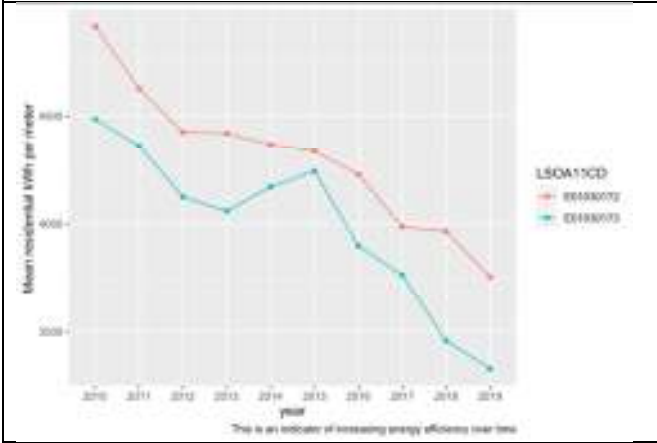


Figure 7: Mean kWh residential electricity per meter 2010-2019

If we take the FTC reduction targets described above then from a 2010 baseline:

- We need emissions from residential gas use to fall to 2,163 T CO<sub>2</sub>e (35% reduction) by 2035 and to 832 T CO<sub>2</sub>e (75% reduction) by 2075. To date we have gone in the opposite direction...
- We need emissions from residential electricity use to fall to 2,223 (35% reduction) by 2035 and to 855 T CO<sub>2</sub>e (75% reduction) by 2075. On this basis we have already hit our 2035 target as far as residential electricity use is concerned but this is largely due to the reduced carbon footprint of UK grid electricity...

If every household in Framlingham switched to a purely renewable electricity tariff, emissions due to residential electricity use could fall to almost zero. If this was coupled with switching household space heating and hot water from gas (and oil – not included here) to electricity (e.g. via heat pumps) then the overall residential energy emissions would fall even further<sup>10</sup>. Exactly how many houses (and businesses) in Framlingham could feasibly (and affordably) switch to electric hot water and space heating via heat pumps is unknown.

It is unlikely to be possible to develop 2010 baselines for any other sources of emissions due to a lack of data at this scale of geography. Data at the local authority level goes back to 2005<sup>11</sup> but does not apply specifically to Framlingham. However, baselines for 2020 for a wider range of emissions sources are possible. These are discussed in the next section(s).

### 3.2.3 Estimating 'Framlingham' emissions 2020

There are at least two ways of measuring the emissions of a given area but the most frequently used are **territorial** and **consumption-based**.

- **Territorial - all emissions occurring within the area:** "A territorial carbon footprint includes all emissions that are generated within a defined geographical area, including those from industry, agriculture and transport activities." (<https://impact-tool.org.uk/faq>) This is the method currently used at the national level by the Climate Change Committee (CCC) in their carbon budget reports<sup>12</sup> although they explain how consumption-based estimates are also required to understand all the emissions caused by the way we live.
- **Consumption-based - all emissions caused by residents of the area, regardless of where geographically they occur:** "Upstream (before we get them) and downstream (after we dispose of them) emissions from residents' consumption of manufactured goods, food and their own transport activity." (<https://impact-tool.org.uk/faq>). The consumption-based approach usually produces a higher overall GHG emissions footprint (up to double) than territorial emissions as it will include, for example, the emissions due to producing and manufacturing of goods (e.g. food, clothing, construction materials etc) that takes place outside the parish, region or country.

These are complementary methods which are not directly comparable to each other although many of the emissions sources included overlap. Instead, they "provide useful information to help target local action to reduce emissions"<sup>13</sup>.

Note that when considering emissions, as with the GHG Protocol described above, all GHG gasses, not just carbon dioxide need to be considered.

#### 3.2.3.1 Estimating territorial emissions 2020

The Centre for Sustainable Energy's 'community carbon calculator'<sup>14</sup> uses a range of data to estimate Framlingham's total territorial emissions to be 17,571 Tonnes CO<sub>2</sub>e<sup>15</sup>. The data varies in age from 2011

<sup>10</sup> This is discussed in detail in the [Net Zero Hollesley](#) Action Plan – many of the same points would apply to Framlingham.

<sup>11</sup> See <https://rushby.shinyapps.io/LAemissions/> using data from <https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2019>

<sup>12</sup> <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

<sup>13</sup> <https://impact-tool.org.uk/faq>

<sup>14</sup> This tool was developed by the Centre for Sustainable Energy and the University of Exeter's Centre for Energy & the Environment.

<sup>15</sup> <https://impact-tool.org.uk/footprint/footprint?parishId=E04009407&footprintType=territorial&scale=absolute>

(Census) to 2019 and it may under-estimate the number of people living in the parish as it may not include recent housing developments. This should only affect the estimates of non-energy household emissions because the energy data is measured on an annual basis.

The estimate breaks down as shown in Table 4 with housing, road transport, agriculture and flights the main sources. The relatively low emissions due to waste management may be a surprise to many people.

Table 4: Framlingham parish estimated territorial emissions (T CO<sub>2</sub>e, 2018)

Source	What's included	Framlingham T CO <sub>2</sub> e	Framlingham T CO <sub>2</sub> e per household	East Suffolk DC T CO <sub>2</sub> e per household
<b>Housing</b>	Gas, electricity, oil & other fuels	6,617	4.02	3.99
<b>Road Transport</b>	Fuels	2,924	1.78	3.73
<b>Agriculture</b>	Livestock, land-use & crop related emissions, fuel use	2,255	1.37	3.02
<b>Aviation</b>	Flights taken by residents, air freight	2,207	1.34	1.64
<b>Industrial and commercial</b>	Gas & electricity use	1,952	1.19	1.36
<b>Shipping</b>	Sea freight "national figure was divided by the national population"	879	0.53	0.73
<b>F-gases</b>	e.g. extinguishants and refrigerants	422	0.26	0.54
<b>Other Transport</b>	"available local authority data apportioned to local levels on the basis of land area"	172	0.1	0.46
<b>Waste management</b>	Transport, incineration, landfill	143	0.09	0.11
<b>Diesel fuelled railways</b>		0	0	0.05
<b>Total</b>		<b>17,571</b>	<b>10.7</b>	<b>15.6</b>

To put these values in perspective, the 90 ha Pound Farm Wood<sup>16</sup> may capture around 900 T CO<sub>2</sub>e/year depending on the mix of forestry types (see Section 3.2.1). Even if the entirety of the 19 km<sup>2</sup> (1900 ha) of the Framlingham civil parish were 30-year mixed woodland with no other land-use, this would still only be capturing around 19,000 T CO<sub>2</sub>e per year.

If we divide by the number of households to give a per-household emissions footprint we can then compare with other areas of different sizes – for example East Suffolk (see Table 4). In this case the Framlingham per household emissions were estimated to be 10.7t CO<sub>2</sub>e while for the whole of East Suffolk it is 15.6t CO<sub>2</sub>e. The differences are shown in Figure 8 with much higher estimated per household agricultural and road transport emissions in the whole of East Suffolk.

<sup>16</sup> <https://www.woodlandtrust.org.uk/visiting-woods/woods/pound-farm/>

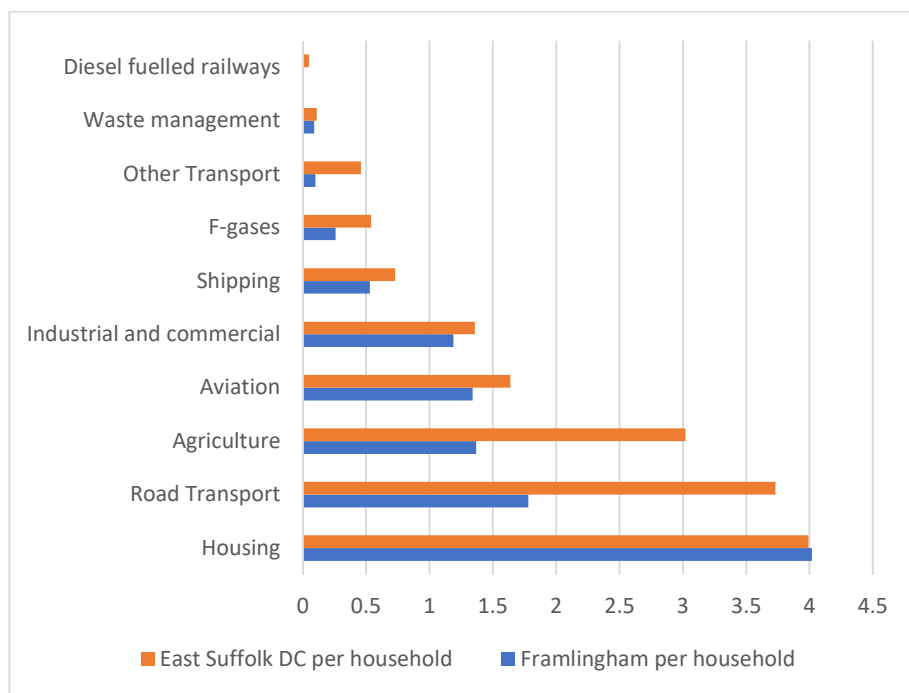


Figure 8: Estimated per household territorial emissions (T CO2e, CSE Impact Tool)

It would also be possible to estimate the carbon capture of various land-uses within the parish boundary – such as woodland, grassland, the mere (wetlands etc). This could be seen as an ‘internal offset’ (see Section 3.2.1) and illustrates the potential value of biodiversity actions to reducing GHG emissions.

3.2.3.2 Estimating consumption-based emissions 2020

According to the CSE tool, Framlingham’s total consumption emissions were estimated to be 30,233 T CO2e - nearly double the territorial emissions (Table 5). Emissions due to the consumption of goods and services together with travel dominate. Food and diet is almost as big a source of emissions as the housing which dominated the territorial emissions.

As before, if we divide by the number of households we can compare with East Suffolk DC as whole. In the case of consumption-based emissions Framlingham has a higher per household emissions rate (18.4 T CO2e/household compared to 16.5 T CO2e/household) largely due to additional per household travel emissions.

Table 5: Framlingham consumption-based emissions estimates

	Framlingham T CO2e	Framlingham T CO2e per household	East Suffolk T CO2e per household
<b>Consumption of goods and services</b>	9691	5.89	5.44
<b>Travel</b>	7712	4.69	3.39
<b>Housing</b>	6617	4.02	3.99
<b>Food and diet</b>	6148	3.74	3.62
<b>Waste</b>	65	0.04	0.04
	<b>30,233</b>	<b>18.38</b>	<b>16.48</b>

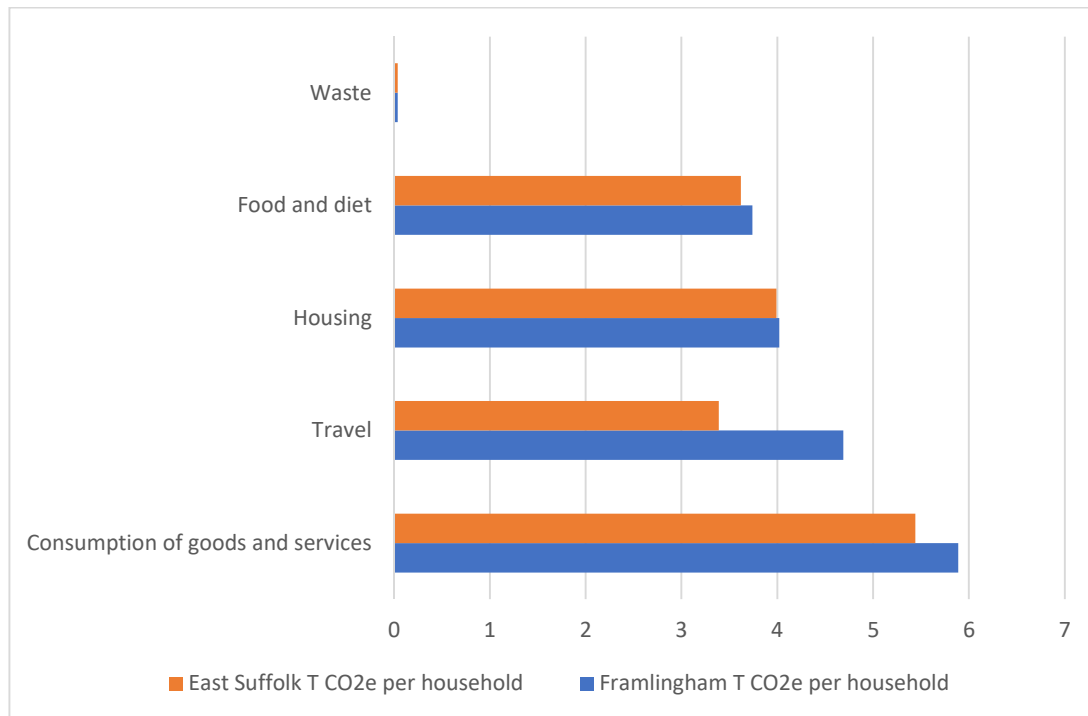


Figure 9: Estimated per household consumption-based emissions (T CO2e, CSE Impact Tool).

## 4 Biodiversity enhancement

Tbc – but if we take the same approach...

### 4.1 Biodiversity action-planning

Table 6: Phased approach to biodiversity enhancement action planning

	Phase 1 (2021-2023)	Phase 2 (2023-2025)	Phase 3 (2025-2030)
<b>Doing</b>	<ul style="list-style-type: none"> <li>Map existing green corridors and biodiversity</li> <li>Audit current biodiversity projects/activities</li> <li>Map and assess existing carbon sequestration (mere, wetland, meadows, verges, hedgerows, woodland, farmland etc)</li> <li>Define targets</li> <li>Develop action plan</li> <li>Define 'impact' assessment method</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 2 actions</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 3 actions</li> </ul>
<b>Preparing</b>	Phase 2 actions	Phase 3 actions	Future actions
<b>Exploring</b>	Phase 3 actions		

### 4.2 Baselineing our biodiversity

Ecological surveys

Green corridor mapping

## 5 'Least trace' living

Tbc

### 5.1.1 'Least trace living' action planning

Table 7: Phased approach to 'least trace' living action planning

	Phase 1 (2021-2023)	Phase 2 (2023-2025)	Phase 3 (2025-2030)
<b>Doing</b>	<ul style="list-style-type: none"> <li>Estimate baseline volumes of non-recyclable waste collected</li> <li>Conduct 'least trace' living audit of retailers and other projects (Make &amp; mend etc?)</li> <li>Carry out initial air quality monitoring at sites of concern</li> <li>Develop action plan</li> <li>Define 'impact' assessment method</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 2 actions</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 3 actions</li> </ul>
<b>Preparing</b>	Phase 2 actions	Phase 3 actions	Future actions
<b>Exploring</b>	Phase 3 actions		

### 5.1.2 Baselining our 'Least trace living'

Audit/survey of retailers?

## 6 Resilience (climate change *adaptation*)

Climate change related risks to the Town and its operations could include (Climate Change Committee 2021):

- Increases in average and extreme temperatures, in winter and summer.
- Changes to rainfall patterns, leading to flooding in some places, at some times, and water scarcity in others.
- Increased coastal flooding and erosion, alongside increasing sea temperatures and ocean acidification.
- Increased frequency and intensity of wildfire.
- Potential changes to other weather variables including wind strength and direction, sunshine and UV levels, cloudiness, and sea conditions such as wave height.

What steps are ESC, FTC, local businesses and residents taking to ensure resilience to these risks?

### 6.1.1 Resilience action planning

Table 8: Phased approach to resilience action planning

	Phase 1 (2021-2023)	Phase 2 (2023-2025)	Phase 3 (2025-2030)
<b>Doing</b>	<ul style="list-style-type: none"> <li>Audit/establish current and future risks under future warming scenarios</li> <li>Develop action plan</li> <li>Define 'impact' assessment method</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 2 actions</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 3 actions</li> </ul>
<b>Preparing</b>	Phase 2 actions	Phase 3 actions	Future actions

<b>Exploring</b>	Phase 3 actions		
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### 6.1.2 Baselining our resilience

Survey of businesses & organisations?

Environment Agency?

ESC planning etc?

## 7 Cross-cutting engagement

### 7.1.1 Cross-cutting action planning

Table 9: Phased approach to cross-cutting action planning

	Phase 1 (2021-2023)	Phase 2 (2023-2025)	Phase 3 (2025-2030)
<b>Doing</b>	<ul style="list-style-type: none"> <li>Develop action plan</li> <li>Define 'impact' assessment method</li> <li>COP26@The Market</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 2 actions</li> </ul>	<ul style="list-style-type: none"> <li>Measuring impact</li> <li>Phase 3 actions</li> </ul>
<b>Preparing</b>	Phase 2 actions	Phase 3 actions	Future actions
<b>Exploring</b>	Phase 3 actions		

### 7.2 COP26 @TheMarket – 6<sup>th</sup>?

Tbd – who should we invite to join the 'stall'?

- SWT
- Fram Farmers
- Fram Business Council
- ESC
- Co-op
- Renewable energy providers?

Others who reflect the COP26 daily themes?

- Saturday Nov 6<sup>th</sup> = Nature

## 8 References

BEIS/DEFRA. 2019. 'Environmental Reporting Guidelines: Including Streamlined Energy and Carbon Reporting Requirements'. GOV.UK. March 2019.  
<https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>.

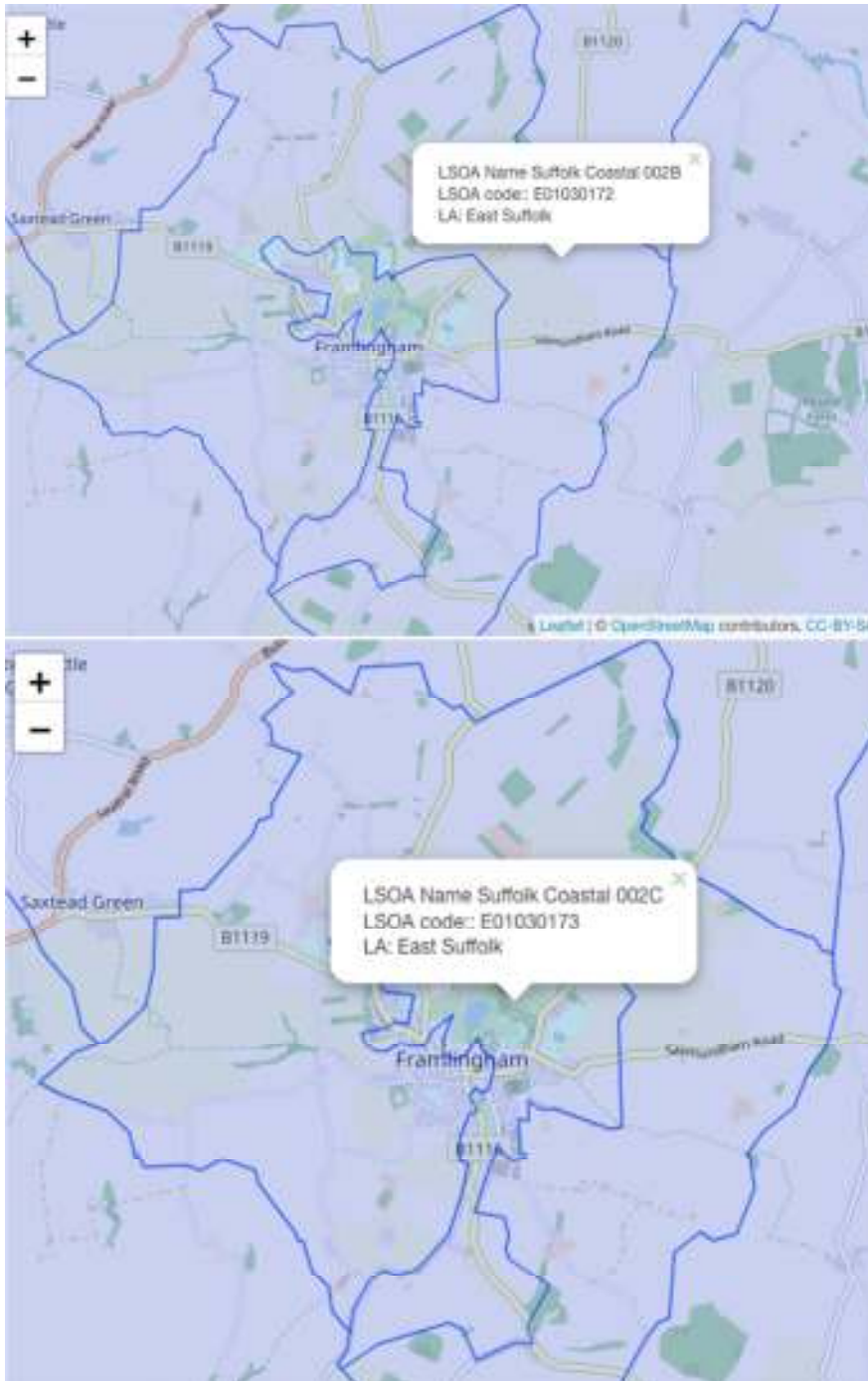
Climate Change Committee. 2021. 'Independent Assessment of UK Climate Risk'.  
<https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>.

## 9 Appendices

### 9.1 Framlingham boundaries

#### 9.1.1 Census LSOAs

The civil parish comprises two Census LSOAs as shown below. These more or less match to the 'old' town and 'surrounding' areas.



### 9.2 GHG gases

Emissions are reported as CO<sub>2</sub>e – Carbon Dioxide equivalent units. This enables the reporting of emissions from non-CO<sub>2</sub> sources which have different warming potentials than CO<sub>2</sub>. This is highly relevant to sectors which produce GHG emissions other than CO<sub>2</sub> such as agriculture (e.g. methane - CH<sub>4</sub>) and industry. The



gases to be reported are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).

### 9.3 GHG Protocol detailed table

Table 10: GHG Protocol Scopes 1-3 and applicability to FTC

Scope	Category	Explanation	FTC examples
<b>Scope 1</b>	Stationary combustion	Combustion of fuels in stationary equipment such as boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc.	Gas purchased for properties owned or leased
	Mobile combustion	Combustion of fuels in transportation devices such as automobiles, trucks, buses, trains, airplanes, boats, ships, barges, vessels, etc	Direct purchase of fuels for FTC owned vehicles
	Process emissions	Emissions from physical or chemical processes such as CO <sub>2</sub> from the calcination step in cement manufacturing, CO <sub>2</sub> from catalytic cracking in petrochemical processing, PFC emissions from aluminium smelting, etc	Not applicable?
	Fugitive emissions	Intentional and unintentional releases such as equipment leaks from joints, seals, packing, gaskets, as well as fugitive emissions from coal piles, wastewater treatment, pits, cooling towers, gas processing facilities, etc	Leaks from owned gas pipes or cooling refrigerants e.g. when undergoing maintenance
<b>Scope 2</b>	Purchase of electricity from the grid		Electricity purchased for properties owned or leased
	Purchase of steam and hot water		Not applicable?
<b>Scope 3 (Upstream)</b>	Purchased goods and services	All upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year. Products include both goods (tangible products) and services (intangible products).	Purchase of paper, printer ink, appliances, stationary, catering, cleaning services, maintenance services
	Capital goods	All upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year.	Purchased equipment, machinery, buildings, facilities, and vehicles?
	Upstream fuel & energy (non Scope 1 & 2)	Emissions due to upstream emissions of purchased fuels & electricity, transmission and distribution (T&D) losses, generation of purchased electricity that is sold to end users	Adds a small uplift to the emissions due to gas & electricity purchase
	Upstream transportation and distribution	Transportation and distribution of products purchased by the company; third-party transportation and distribution services purchased	Delivery of products purchased Potentially place to report emissions due to transport services commissioned by FTC
	Waste generated in operations	Emissions from third-party disposal and treatment of waste generated in the reporting company's owned or controlled operations in the reporting year. This category includes emissions from disposal of both solid waste and wastewater. Optionally includes emissions from	Emissions resulting from waste collected from FTC assets

		transport of waste	
	Business travel	Emissions from leased vehicles operated by the reporting company not included in scope 1 or scope 2	Travel on FTC business – e.g. attendance at non FTC meetings etc (claimed as expenses?)
	Employee commuting	Includes emissions from the transportation of employees between their homes and their worksites	Not strictly applicable but could be used to report attendance by councillors at FTC meetings
	Upstream leased assets	Emissions from the operation of assets that are leased in the reporting year and not already included in the scope 1 or scope 2 inventories	e.g. emissions from cleaning or maintenance services of leased offices
<b>Scope 3 (Downstream )</b>	Downstream transportation and distribution	Emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled	N/A?
	Processing of sold products	Emissions from the processing of sold intermediate products by third parties	N/A?
	Use of sold products	Emissions from the use of goods and services sold: The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)	N/A?
	End-of-life treatment of sold products	Emissions from the waste disposal and treatment of products sold: The scope 1 and scope 2 emissions of waste management companies that occur during disposal or treatment of sold products	What does FTC sell?
	Downstream leased assets (operation)	Emissions from the operation of assets that are owned by FTC	Market Square/Market?!
	Franchises (operation)	Emissions from the operation of franchises not included in scope 1 or scope 2. A franchise is a business operating under a license to sell or distribute another company's goods or services within a certain location.	N/A?
	Investments (operation)	If not included in the reporting company's scope 1 and scope 2 inventories: Account for proportional scope 1 and scope 2 emissions of equity investments that occur in the reporting year.	N/A? Bank-held savings etc may count?