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HM Treasury



# GREENHOUSE GAS ACCOUNTING TOOL

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# WHO WE ARE



JOINTLY OWNED BY



**Local Partnerships is a joint venture between the Local Government Association, HM Treasury and the Welsh Government.**

We work solely for the benefit of the public sector. We bring public and private sector experience that provides **confidence, capacity** and **capability**, helping councils achieve and maintain financial resilience.

Our experts provide trusted, professional support and advice over multiple disciplines, helping you make best use of limited resources as demand for services continues to rise.

EFFICIENCY AND SAVINGS

HEALTH AND  
SOCIAL CARE

AIR QUALITY

ENERGY

DIGITAL TRANSFORMATION

REGENERATION  
AND GROWTH

HOUSING AND INFRASTRUCTURE

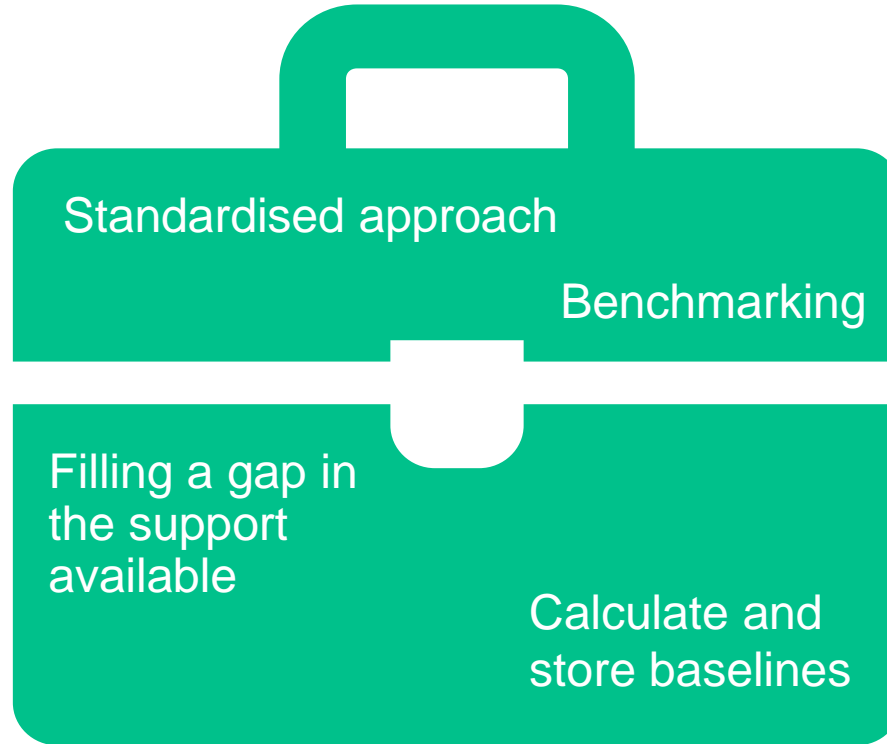
WASTE AND RECYCLING

FINANCIAL RESILIENCE



# THE GREENHOUSE GAS ACCOUNTING TOOL

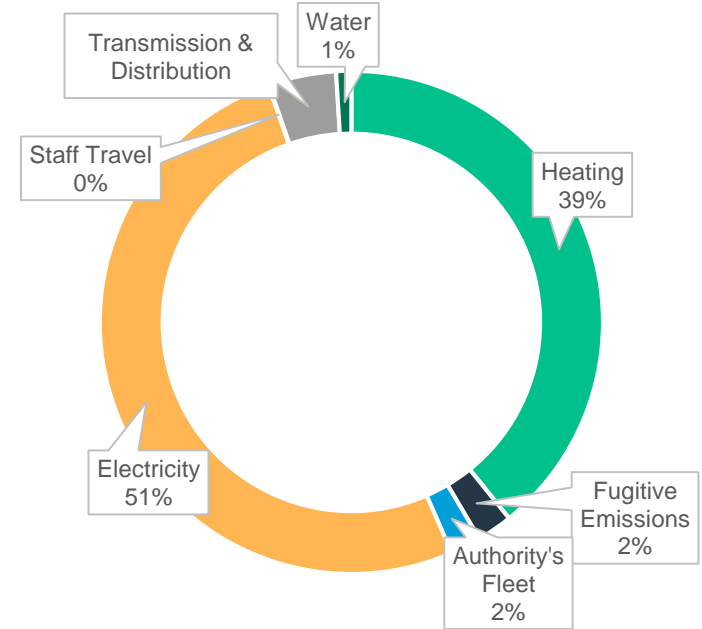
WHY?



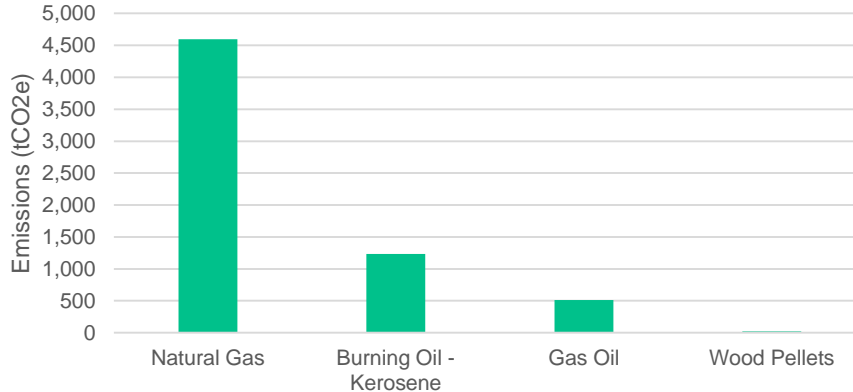
# HOW THE GREENHOUSE GAS ACCOUNTING TOOL CAN HELP

## Summary

Scope	Emissions Type	Emissions (tCO <sub>2</sub> e)	Percentage of Total Emissions
Scope 1	Heating	6,366.97	39.2%
	Fugitive Emissions	371.35	2.3%
	Authority's Fleet	320.61	2.0%
Scope 2	Electricity	8,307.00	51.2%
Scope 3	Staff Travel	6.83	0.0%
	Transmission & Distribution Losses	705.25	4.3%
	Water	157.80	1.0%
<b>Total Emissions</b>		<b>16,235.81</b>	<b>100.0%</b>



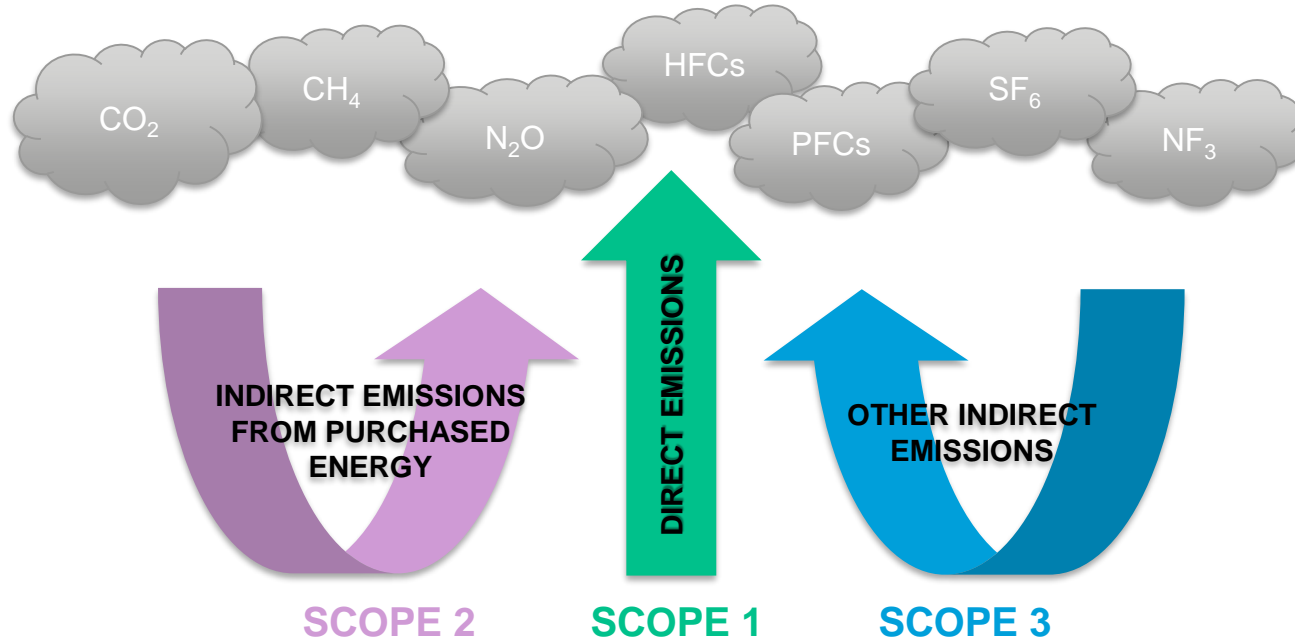
Scope 1 Emissions - Heating



# CALCULATING BASELINE EMISSIONS

## Using the Greenhouse Gas Accounting Tool

- A template that can be used to record council emissions, both Scope 1 and 2 plus basic Scope 3 emissions



# CALCULATING BASELINE EMISSIONS

## Using the Greenhouse Gas Accounting Tool

Overview	Scope guidance	Scope 1	Scope 2	Scope 3	Summary tables	Summary charts	GHG Emission Factors
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### Scope 1

#### Heating

Activity	Consumption Units (Please Select)	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Natural Gas	kWh (Gross CV)	2019-20	25,000,000	0.184	4,596.25
Burning Oil - Kerosene	kWh (Gross CV)	2019-20	5,000,000	0.247	1,233.75
Gas Oil	kWh (Gross CV)	2019-20	2,000,000	0.257	513.52
Wood Pellets	kWh (Gross CV)	2019-20	1,500,000	0.016	23.45

#### Fugitive Emissions

Activity* Please enter any other fugitive emissions calculations using guidance below	Consumption Units	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
HFC-32	kg	2019-20	50	675	33.75
R410A	kg	2019-20	75	2088	156.60
HCFC-22/R22	kg	2019-20	100	1810	181.00
Other Fugitive Emissions		2019-20			

#### Authority's Fleet

Activity* Engine sizes below are for indicative purposes only	Consumption Units (Please Select)	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Small diesel car ≤ 1.7 litre	Litres	2019-20	24	2.594	0.06
Medium diesel car, 1.7 - 2.0 litre	Litres	2019-20	22	2.594	0.06
Large Diesel Car > 2.0 litre	Litres	2019-20	60	2.594	0.16
MPV - Diesel	Mil	2019-20		0.291	Enter Consumption Figure
Diesel van Class I (up to 1.305 tonnes)	Mil	2019-20		0.241	Enter Consumption Figure
Diesel van Class II (1.305 to 1.74 tonnes)	Litres	2019-20		2.594	Enter Consumption Figure

#### Colour code

Drop down selection
Calculation/Formula Cell - locked
Text/number input

# CALCULATING BASELINE EMISSIONS

## Using the Greenhouse Gas Accounting Tool

Overview	Scope guidance	Scope 1	Scope 2	Scope 3	Summary tables	Summary charts	GHG Emission Factors
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### Scope 2

Electricity

Activity	Consumption Units	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Building Use	kWh	2019-20		0.256	Enter Consumption Figure
Streetlighting	kWh	2019-20		0.256	Enter Consumption Figure

Further comments or clarification about your carbon calculation: make any further notes about your calculation in the cell below

# CALCULATING BASELINE EMISSIONS

## Using the Greenhouse Gas Accounting Tool

Overview

Scope guidance

Scope 1

Scope 2

Scope 3

Summary tables

Summary charts

GHG Emission Factors

### Scope 3

Staff Travel

Activity*	Consumption Units	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Engine sizes below are for indicative purposes only					
Small Petrol Motorbike (Mopeds/Scooters up to 125cc)	Miles	2019-20		0.136	Enter Consumption Figure
Medium Petrol Motorbike (125-500cc)	Miles	2019-20		0.166	Enter Consumption Figure
Average Medium Car (unknown fuel)	Miles	2019-20		0.285	Enter Consumption Figure
Small Petrol Cars ≤ 1.4 litre	Miles	2019-20		0.247	Enter Consumption Figure
Medium Petrol Car 1.4 - 2.0 litre	Miles	2019-20		0.309	Enter Consumption Figure
Large Petrol Car > 2.0 litre	Miles	2019-20		0.455	Enter Consumption Figure
Small Diesel Car ≤ 1.7 litre	Miles	2019-20		0.229	Enter Consumption Figure
Medium Diesel Car 1.7 - 2.0 litre	Miles	2019-20		0.275	Enter Consumption Figure
Large Diesel Car > 2.0 litre	Miles	2019-20		0.337	Enter Consumption Figure
Small Hybrid Car - Petrol	Miles	2019-20		0.169	Enter Consumption Figure
Medium Hybrid Car - Petrol	Miles	2019-20		0.175	Enter Consumption Figure
Large Hybrid Car - Petrol	Miles	2019-20		0.212	Enter Consumption Figure
Electric Vehicle (Average Sized Car)	Miles	2019-20		0.089	Enter Consumption Figure

Transmission & Distribution Losses

Activity*	Consumption Units	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Consumption comprises of both Scope 1 and Scope 3 Electric Vehicle mileage					
T&D Losses - Scope 2 Electricity	kWh	2019-20	0	0.022	0.00
T&D Losses - EV	Miles	2019-20	0	0.008	0.00

Water

Activity	Consumption Units	Year	Consumption	Conversion Factor	Emissions (tCO <sub>2</sub> e)
Water Supply	Cubic Meter	2019-20		0.344	Enter Consumption Figure
Water Treatment	Cubic Meter	2019-20		0.708	Enter Consumption Figure

Colour code

Drop down selection

Calculation/Formula Cell - locked

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# HOW LONG WILL IT TAKE TO COMPLETE THE TOOL?



Hours?



Days?

# WHERE DO I FIND THE INFORMATION FOR THE TOOL?



Utility invoices for gas, electricity etc.



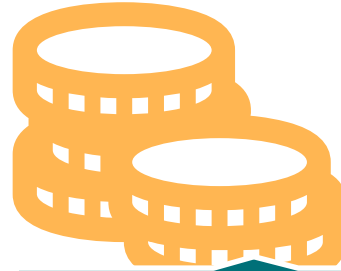
Data from smart meters / HH consumption data



Fuel purchase cards



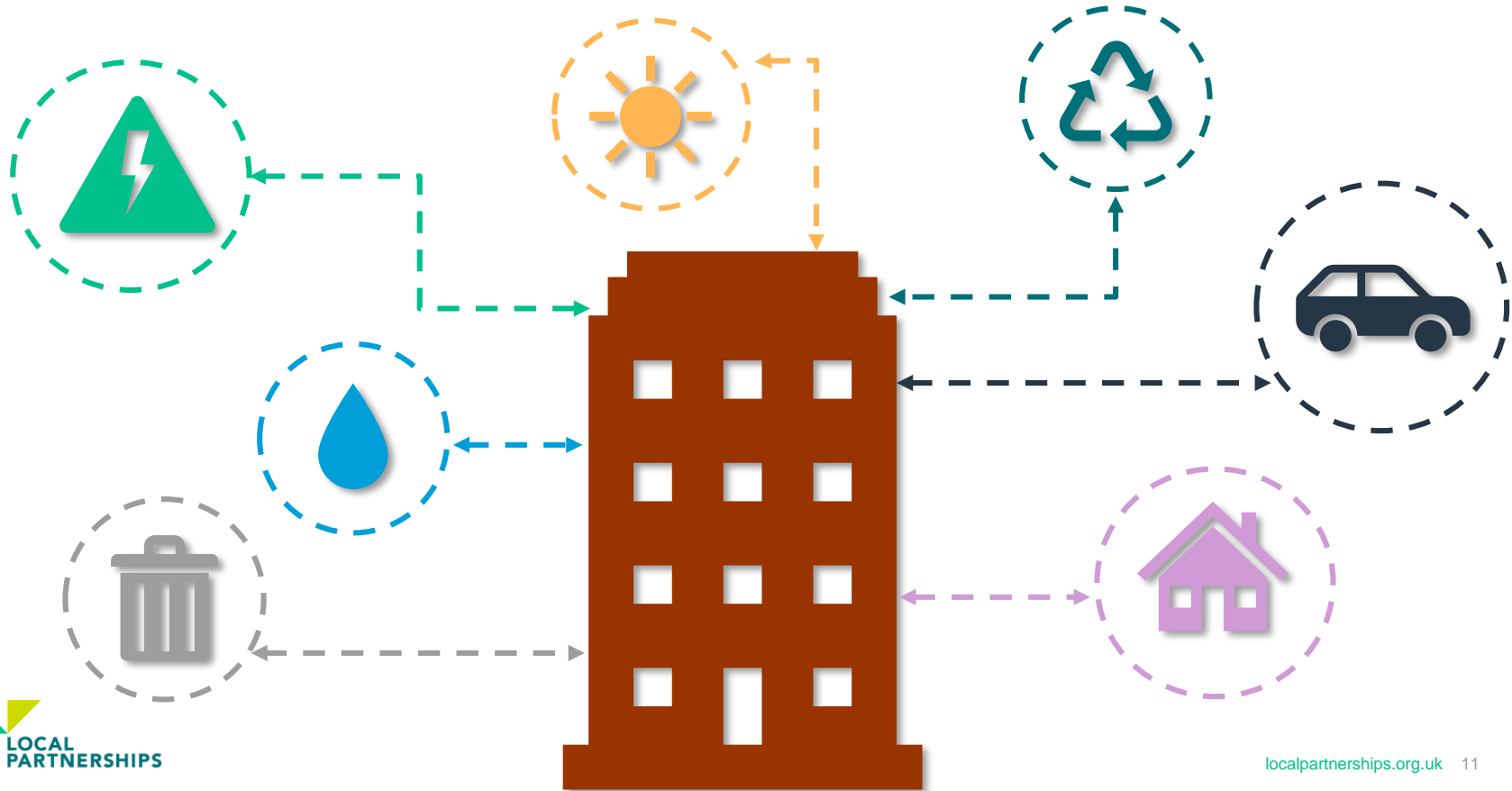
Route mapping calculations for mileage



Travel expense claims

# DEVELOPING SCOPE 3 EMISSIONS

Upstream and downstream scope 3 emissions





# DEVELOPING SCOPE 3 EMISSIONS

## Poll question

Which of the following Scope 3 emissions do you currently include in your baseline?

- Staff business travel
- Staff commuting
- Water consumption
- Waste water
- Electricity transmission and distribution emissions
- Contracted services for transport
- Contracted services for waste
- Other contracted services





# DEVELOPING SCOPE 3 EMISSIONS

## Poll question

Which of the following Scope 3 emissions should we prioritise in the calculator (tick up to three)?

- Staff business (public transport)
- Staff commuting
- Contracted services for transport
- Contracted services for waste
- Leisure services
- Facilities management
- Other

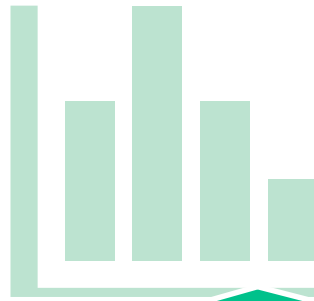




# FURTHER DEVELOPMENT



Tool under  
regular review







Additional data  
requests



Email address



## The local area benchmarking tool from the Local Government Association

-  Area insight
-  Review performance
-  Compare areas
-  Scrutiny

See how your area compares

[Search by area or postcode](#)

[Search](#)



# POLL QUESTION

## Developing benchmarking

Would you be prepared to spend more time providing more granular data in order to improve the quality of benchmarking?

Yes

No





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