

## Going Carbon Neutral Stirling – Carbon Crib Sheet

Action Code	Activity		kg CO <sub>2</sub>	unit	weekly	monthly	annual
<b>Personal Activities</b>							
E101	Switch off lights in empty rooms at night (10pm - 7 am) (based on 1 low energy 11 W Bulb)		0.006	hour	0.3	1.3	15.7
E102	Change from standard (60w) to low energy (11w) light bulb and the lights on for eight hours per day		0.028	hour	1.5	6.7	80.2
E103	Switch off electrical appliances when not in use (off to on stand-by)	LCD TV on Stand-by	0.051	hour	5.6	24.1	289.2
		Digital TV set top box on stand by	0.001	hour	0.1	0.3	3.2
		Sony Playstation 3 on stand by	0.106	hour	11.6	50.3	604.2
		Home cinema sound system on stand-by	0.002	hour	0.2	0.8	9.6
		<b>Total</b>	<b>0.158</b>	<b>hour</b>	<b>17.4</b>	<b>75.5</b>	<b>906.3</b>
E104	Turn off electrical equipment at the wall when not in use	Computer	0.001	hour	0.1	0.5	6.4
		Laptop	0.000	hour	0.03	0.1	1.6
		Stereo Amplifier	0.003	hour	0.4	1.6	19.3
E105	Unplug chargers when devices have finished charging (7am-10pm)		0.000	hour	0.03	0.1	1.5
E106	Boil only the water that you need (Based on boiling one cup of 250ml rather than a full kettle once a day)		0.048	use	0.3	1.5	17.5
E107	Wait until dishwasher is full before washing, saving one load in the course of the week and another at the weekend (based on an A rated dishwasher)		0.596	use	1.2	5.2	61.9
E110	Reduce the number of light sources being used to the minimum required from two 11w bulbs to one 11w bulb, and for two hours each day		0.033	hour	0.5	2.0	24.5
E121	When cooking roasts or stews turn the oven off ten minutes before you serve the meal		1.872	event	5.6	24.2	292.2
E202	Reduce the amount of time you spent watching television	Not watching 3 hours per week TV on stand by instead	0.506	Hour	0.5	1.9	23.7
		Not watching 3 hours per week TV off at socket.	0.561	hour	0.5	2.2	26.3
E204	When replacing computer, buy a laptop instead of a desktop	On for 8 hours per week day and two at the weekend	0.097	hour	4.3	18.6	223.8
H202	Draft proof windows and doors						1000

Action Code	Activity		kg CO <sub>2</sub>	unit	weekly	monthly	annual
H204	Insulate your hot water tank						195
H205	When replacing your boiler, replace with a condensing boiler						875
W&W104	When using washing machine only do full loads; these figures show the CO <sub>2</sub> saved when uses are reduced by two a week		0.314	event	0.6	2.7	32.7
W&W111	Take a shower instead of a bath		2.022	event	14.2	61.4	736.2
W&W205	Reduce the number of times that you use the tumble dryer; CO <sub>2</sub> saving of reducing use by twice per week		1.404	event	2.8	12.2	146.1
<b>Business Activities</b>							
E111	Switch computer/monitor off between 10pm and 7am	Computer	0.044	hour	4.1	17.7	211.9
		Laptop	0.009	hour	0.8	3.5	42.1
		CRT Monitor	0.062	hour	5.7	24.9	298.9
		LCD monitor	0.020	hour	1.8	7.7	92.4
E114	Switch off all office equipment at the end of the day	Includes figures for 2 Computer, 2 CRT monitor, 1 printer, 1 television plus 2*60w bulbs	0.106	hour	9.8	42.6	510.8
E101	Switch lights off at night	Lights off for 12 hours per day during the week and 24 over the weekend, based on 2*60w bulbs per 30sqft	0.067	hour	7.2	31.5	378.6
New	Power to run air conditioning		0.280	hour	15.7	68.2	818.1

## Other Tables

### Transport

Emissions saved by leaving the car and using other forms of transport (kg CO <sub>2</sub> )					
Miles	1	5	10	15	20
CO <sub>2</sub> Emitted by using the car	0.3	1.6	3.3	4.9	6.6
CO <sub>2</sub> Saved by using the bus rather than car	0.3	1.2	2.4	3.7	4.9
CO <sub>2</sub> Saved by using the Train rather than car	0.3	1.6	2.9	4.4	5.8
Emissions per person saved if two people in car	0.2	0.8	1.6	2.5	3.3
Emissions saved if cycle rather than car	0.3	1.6	3.3	4.9	6.6

T114: Drive at a more efficient speed kg CO <sub>2</sub>		
Speed	Distance	CO <sub>2</sub>
50 not 60 mph	25	1.3
	50	2.5
	75	3.8
	100	4.9
60 not 70 mph	25	0.8
	50	1.7
	75	2.5
	100	3.4

A104 Holiday in the UK rather than travelling abroad		
CO <sub>2</sub> Emissions for a return drive from Stirling to Blackpool (674 km round trip)	34.4	kg per person based on two adults and two children in car
CO <sub>2</sub> Emissions from flying to Edinburgh to Madrid (3403.94km taken from airtimetable.com)	364.7	kg per passenger
Total CO <sub>2</sub> Saving	330.3	kg per passenger
A202 If going on holiday to Disneyland in Europe, drive rather than fly		
CO <sub>2</sub> Emissions of return drive from Stirling to Disneyland Paris	118.2	kg per person based on two adults and two children in car
CO <sub>2</sub> Emissions of return flight from Edinburgh to Paris and back	185.6	kg per passenger
Total CO <sub>2</sub> Saving	67.3	kg per passenger

Using the train rather than flying for internal UK journeys			
<i>All journeys beginning return from Edinburgh</i>			
Journey	Distance (km)	kg CO <sub>2</sub> Emissions from train	kg CO <sub>2</sub> saved per passenger km
London	1,003	60	495
Birmingham	762	13.5	409
Aberdeen	524	41	249

A103 Reduce the number of flights you make in a year (return flights)		
Destination from Edinburgh	Distance (km)	kg CO <sub>2</sub>
Paris	1732	538
Madrid	3404	1,058
New York	10,514	3,267

T205: kg CO <sub>2</sub> Saving by use of video conferencing rather than travel to a meeting (assumes a two hour meeting)							
Miles	5	10	15	20	50	<i>150 per week (annual)</i>	
Car	1.4	3.1	4.7	6.4	16.2	2,563	
Bus	0.4	0.9	1.5	2.1	5.6	903	
Train	0.1	0.4	0.7	0.9	2.8	469	
Car share	0.5	1.3	2.1	2.9	7.9	1,281	

A102: Use video conferencing rather than flying to a meeting in the UK			
Destination from Edinburgh	Distance (km)	Emissions	kg CO <sub>2</sub> Saving
London	1,003	555.5	555.3
Birmingham	762	422.3	422.1
Aberdeen	524	290.2	289.9

CO <sub>2</sub> emissions using a car and carbon savings from using alternatives (kg CO <sub>2</sub> )					
Miles	1	5	10	15	20
Car	0.3	1.6	3.3	4.9	6.6
Bus instead of Car	0.2	1.2	2.4	3.7	4.9
Train instead of car	0.3	1.5	2.9	4.4	5.8
Car share (1 extra person)	0.2	0.8	1.6	2.5	3.3
Bike	0.3	1.6	3.3	4.9	6.6

## Food

<b>F201 CO<sub>2</sub> savings from eating locally produced seasonal strawberries rather than importing them from California including packaging – it is assumed that Strawberries are packed at the production plant (USA) /farm (Scotland)</b>		
CO <sub>2</sub> emissions for importing strawberries by long haul air freight (8,657km plus transport from Heathrow to Stirling)	16.6	kg of CO <sub>2</sub> per kg of strawberries
Carbon emission in transporting locally produced strawberries from Blairgowrie (78 km)	0.000036	kg of CO <sub>2</sub> per kg of strawberries
Carbon saving of eating strawberries from Canterbury	16.6	kg of CO <sub>2</sub> per kg of strawberries

<b>F203 Buying food and drink based on the number of food miles</b>		
	kg CO <sub>2</sub> Emissions per litre (assuming 1kg of wine has a volume of 1 litre) of wine	kg CO <sub>2</sub> Annual based on 4 bottles per week
CO <sub>2</sub> Saving based on buying a bottle of French Wine rather than a wine from New Zealand		
CO <sub>2</sub> Emissions for importing wine Auckland to London (18,331km) by Large Bulk Carrier	0.13	27
CO <sub>2</sub> Saving of importing a bottle of wine from Bordeaux to London (742km) by articulated lorry	0.06	12.5
CO <sub>2</sub> Saving of importing wine from France rather than New Zealand	0.07	14.5

## Recycling

<b>Carbon saved by Recycling Aluminium Cans, Plastic Bags and Glass Bottles, thus preventing production of new containers</b>			
<b>Container</b>	<b>Per Day</b>	<b>One Month</b>	<b>One Year</b>
<b>Aluminium Can 330ml</b>	1 Can	0.003	0.033
	6 Cans	0.017	0.199
	12 Cans	0.033	0.398
	24 Cans	0.066	0.796
<b>Single Use Plastic Bag</b>	1 Bag	0.000	0.005
	6 Bags	0.002	0.028
	12 Bags	0.005	0.056
	24 Bags	0.009	0.111
<b>Glass Bottle 750ml</b>	1 bottle	0.004	0.053
	6 Bottles	0.026	0.317
	12 Bottles	0.053	0.633
	24 Bottles	0.106	1.267
<b>Jam Jar</b>	1 bottle	0.002	0.021
	6 Bottles	0.011	0.127
	12 Bottles	0.021	0.253
	24 Bottles	0.042	0.502