

## **Transition Redhill Personal Carbon Footprint (PCF) Monitoring Scheme**

The rules of the Scheme are set out below. If you have any queries about the scheme, please contact Derek Smith at [derek.redhill@gmail.com](mailto:derek.redhill@gmail.com)

### **Membership**

1. All members of Transition Redhill (TR) may join. Membership is voluntary, and members may leave the scheme at any time.

### **Scope**

2. The scheme enables members to monitor their PCF, expressed in terms of annual carbon dioxide emissions, from the following sources:

- Home heating
- Home electricity
- Transport by own car or motorbike
- Air travel

The scheme does not include public transport or the use of other products and services as there is no easy way to calculate these contributions.

3. The scheme is based on emissions per adult person, not households.

### **PCF Calculations**

4. The following rules describe how PCF is calculated for the year 2012. The same rules apply for subsequent years.

Members will provide the following information to the PCF scheme administrator to enable their PCF to be calculated.

- Number of adults in household. Use fractions for part occupation eg if an adult is present 6 months of the year, count as 0.5 adults. Children under 18 count as one third of an adult.
- Gas and electricity meter readings at 1 Jan 2012 and 2013.
  - No reductions or adjustments are allowed for a renewable or green electricity tariff. See note 1.
  - Members who have PV panels supply both their import and generation meter readings (and export meter readings if they have one). The PCF attributable to electricity usage will then be calculated from the net electricity import, ie import minus export: this may be a negative number.

- Air travel. To find out emissions from any air travel in 2012 , members need to use the air travel calculator on the Climate Care web site (<http://www.climatecare.org/>), entering the flight start and end locations. Business flights are excluded, in line with other business travel.
- Personal car or motorbike mileage, fuel (diesel or petrol), and average mpg. This requires members to record the odometer readings at 1 Jan 2012 and 2013, and to calculate their average mpg by recording the quantities of fuel and miles travelled over a few months.  
Alternatively, and more accurately, members may record all their fuel purchases during the year. A year-end adjustment is in theory appropriate but not essential.
- If a car is shared, members need to either record the mileage when they are driving, or simply estimate the fraction of the total miles that are attributable to them (see note 2). Travel to and from normal place of work is included, but other business mileage, including self-employed person’s business mileage, is excluded. Alternatively members may record the volumes of fuel bought over the year and allocate it to business and personal use.
- Ideally all taxi and car-hire use for non-business purposes should be recorded too. Members should record the mileage of each journey (the AA website is useful for saying how far it is from A to B), and, if shared-use, the number of people in the vehicle). Great accuracy isn’t necessary, estimating the distance to, say, the nearest 50 miles is adequate. For hired cars members can instead record the fuel volume bought and that gives a better estimate.

5. If members join after 1 January 2012, they should record the joining date and their gas and electricity meter readings on that date. They should also start to record their transport data as described above. They should provide a second set of data on 1 Jan 2013 as the other members. The PCF scheme administrator will then estimate their annual emissions from this data.

6. At the end of each year, the PCF administrator will calculate and record each member’s PCF from the data provided. CO2 emissions are calculated using factors published by the Department of Energy and Climate Change. For 2012 these factors are:

Electricity	0.463	kg per kWh
Gas	0.183	kg per kWh
	5.37	kg per therm
Petrol	2.19	kg per litre
Diesel	2.51	kg per litre

7. A small prize will be awarded for the member with the lowest emissions in 2012, and, starting in 2013, another for the biggest reduction in emissions.

Notes.

1. No reductions are allowed because unfortunately there is no way of clearly demonstrating the reduction in emissions (if any) that arises from switching to a green tariff. Despite this we still want to encourage people to select a good green tariff. The following are recommended by most surveys: Good Energy, Green Energy and Ecotricity. This position should be kept under review if possible.

2. For example suppose a shared car does 10000 miles per year. A drives 1000 miles alone, B drives 4000 miles alone, 5000 miles is shared. Miles attributable to A is  $1000 + 5000/2 = 3500$ . Miles attributable to B is  $4000 + 5000/2 = 6500$ .

Derek Smith 29 February 2012