



## **Carbon Performance**

CO2 emissions are the major cause of global warming. Typically, saving 1,000 kWh of electricity, means burning 640 kg less coal with a CO2 emissions reduction of 1,150kg. Thus, reducing electricity consumption helps the environment and also directly saves money spent on electricity. This in turn, reduces the investment required by the country for power stations, mining capacity, etc. to the bottom line - lower taxes or less wasted tax money.

If you have used the calculator on this site, you know how much carbon you use. Have a look at these tips to see how you can make a difference in the carbon footprint.

### **Simple tips for reducing your carbon usage**

#### **General**

- Recycle in your home and buy recycled products.
- Plant trees in your yard.
- Donate or give-away items that you no longer use.

#### **Electricity**

- Ask your energy provider to switch you to green power.
- When making a new purchase, choose appliances with a high energy-efficiency rating.
- Don't charge appliances for longer than necessary.
- Unplug appliances when they are not being used.
- Use rechargeable batteries.
- Turn off the lights when you leave a room.
- Replace standard and halogen light bulbs with energy-saving bulbs.
- Dry your clothes on a clothesline rather than in a dryer.

#### **Heating & Cooling**

- Turn your heating or cooling down by a few degrees.
- Use a pre-programmed thermostat to control your heating and cooling.
- Close your curtains when the sun goes down to prevent hot air from escaping.
- Replace the filters in your heaters and air conditioners.
- Insulate your home and put insulation blankets around your hot water heater and pipes.

#### **Water Usage**

- Take shorter showers and install a water-saving shower head.
- Fix leaking taps, especially hot taps, and make sure they are turned off when not in use.

#### **Goods and Services**

- Buy locally-produced food and choose fresh and whole foods over processed and frozen foods.
- Where possible, buy organic foods.
- Avoid products with heavy packaging and buy refills where available.
- Try reusable shopping bags or use a basket.

#### **Transport**

- Reduce the number of flights you take each year and the amount of luggage you take.
- Consider carpooling, riding, walking or catching public transportation, rather than driving.
- Service your car regularly to improve fuel efficiency and reduce emissions.
- When buying a new car, choose one with a higher fuel-efficiency rating.
- Consider working from home a few days a week.

The table below shows examples of 3 hypothetical 100m<sup>2</sup> systems located in London, Tokyo, and Los Angeles. For these examples, assume that each installation has a south facing roof at a 30 degree angle with no shading.

The London carbon dioxide savings, of 1,829kg, are equivalent to driving 16,000 km in a car, or burning 810kg of coal - enough CO<sub>2</sub> to fill 8,100 bathtubs.

<b>SITE</b>	<b>LONDON</b>	<b>TOKYO</b>	<b>LOS ANGELES</b>
Insolation (kWh/m <sup>2</sup> /yr)	1112	1405	2028
<b>SYSTEM</b>			
No of modules	100	100	100
System width (m)	8.08	8.08	8.08
System height(m)	15.8	15.8	15.8
System area (m <sup>2</sup> )	127.7	127.7	127.7
System weight (kg)	1550	1550	1550
System rated power (kW)	17	17	17
<b>OUTPUT</b>			
Carbon Saving rate	0.46	0.36	0.275
Annual Carbon saving	6485	6306	6954