



Living Routes' Carbon Commitment Calculator

We can each make a difference in our carbon footprint by (1) measuring our emissions, (2) reducing these emissions where possible, and (3) offsetting remaining emissions. There are many online calculators to help measure our footprints (e.g., www.earthcharterinaction.org/climate/2007/09/find_the_right_carbon_calculat.html) and offset remaining emissions (e.g. www.cleanair-coolplanet.org/ConsumersGuidetoCarbonOffsets.pdf), but there are few and scattered resources available to help determine CO₂ reductions that result from behavioral/lifestyle changes.

This worksheet aims to fill this gap by allowing you to commit to *new* actions (i.e. ones that you are not presently or planning on doing) and calculate resulting offsets. Many of the calculations are broad estimates. When more than one was available for the same action, the more conservative and/or more specific one was chosen. This is a work in progress. If you have ideas for improving this worksheet, please contact me at Daniel@LivingRoutes.org.

Personal Emissions

Car: _____ RT mileage ÷ _____ mpg ÷ _____ # Occupants X 19.6 lbs CO₂/gal^a = _____ lbs CO₂
Bus: _____ RT mileage X 0.66 lbs CO₂/mi^b = _____ lbs CO₂
Train: _____ RT mileage X 0.38 lbs CO₂/mi^b = _____ lbs CO₂
Flight (< 3 hours): 1,320 lb CO₂/flight^c ... or _____ RT mileage X 0.64 lbs CO₂/mi^b = _____ lbs CO₂
Flight (3-7 hours): 2,860 lb CO₂/flight^c ... or _____ RT mileage X 0.45 lbs CO₂/mi^b = _____ lbs CO₂
Flight (7+ hours): 8,140 lb CO₂/flight^c ... or _____ RT mileage X 0.39 lbs CO₂/mi^b = _____ lbs CO₂
Other (describe): _____ = _____ lbs CO₂

TOTAL = lbs CO₂

Personal Offsetting Commitments

Please consider *new* actions (i.e. ones you are not presently – or planning on – doing) you can commit to by a certain date in order to offset your personal conference carbon footprint. You are welcome to offset others' as well! Please note that many of the calculations are broad estimates. When multiple estimates were available, the more conservative and/or more specific one was chosen. You are welcome to adjust them based on your individual circumstances.

HOME	<u>lbs CO₂/yr</u>	<u>Offset</u>	<u>Start Date</u>
<input type="checkbox"/> Plug computer into a power strip and turn off when not in use ²	43	→ _____	by _____
<input type="checkbox"/> Ditto for home entertainment equipment ²	240	→ _____	by _____
<input type="checkbox"/> Replace a pre-2001 refrigerator with an Energy Star model ²	500	→ _____	by _____
<input type="checkbox"/> Check refrigerator door seals, clean coils, defrost, keep top clear ²	700	→ _____	by _____
<input type="checkbox"/> Thoroughly seal air leaks in your home ⁸	800	→ _____	by _____
<input type="checkbox"/> Replace a washing machine with an Energy Star front load washer ⁸	500	→ _____	by _____
<input type="checkbox"/> Use a clothesline instead of a dryer for 6 months/year ⁹	700	→ _____	by _____
<input type="checkbox"/> Clean a dirty air conditioner unit filter ¹⁰	175	→ _____	by _____
<input type="checkbox"/> Only run dishwasher when full and use energy-saving setting ⁹	100	→ _____	by _____
<input type="checkbox"/> Replace a pre-2001 dishwasher with an Energy Star model ⁸	125	→ _____	by _____
<input type="checkbox"/> Raise air conditioner thermostat to 74°F from 72°F ²	242	→ _____	by _____
<input type="checkbox"/> Raise air conditioner thermostat to 76°F from 72°F ²	484	→ _____	by _____
<input type="checkbox"/> Replace gas lawnmower with a manual push mower ⁶	120	→ _____	by _____
<input type="checkbox"/> Rake a one acre lawn instead of using a leaf blower ⁶	100	→ _____	by _____
SUBTOTAL	=	_____	

HOME (cont.)	<i>Use one depending on whether you heat by...</i>	<u>Electric</u>	<i>or</i>	<u>Gas</u>	<u>Offset</u>	<u>Start Date</u>
<input type="checkbox"/>	Wash clothes in cold water for one year ⁷	250	<i>or</i>	110	→	by _____
<input type="checkbox"/>	Change showerhead to low-flow device ⁷	225	<i>or</i>	100	→	by _____
<input type="checkbox"/>	Lower hot-water thermostat to 130°F from 140°F ⁷	240	<i>or</i>	106	→	by _____
<input type="checkbox"/>	Lower hot water thermostat to 120°F from 140°F ⁷	480	<i>or</i>	212	→	by _____
<input type="checkbox"/>	Lower thermostat 68°F from 70°F in winter ²	472	<i>or</i>	640	→	by _____
<input type="checkbox"/>	Lower thermostat 66°F from 70°F in winter ²	944	<i>or</i>	1,280	→	by _____
<input type="checkbox"/>	Wrap water heater in an insulating blanket ¹⁰	1,100	<i>or</i>	220	→	by _____
<input type="checkbox"/>	Caulk and weather strip your home ²	472	<i>or</i>	639	→	by _____
<input type="checkbox"/>	Insulate attic of a six room house ⁷	4,430	<i>or</i>	1,390	→	by _____

	<u>#</u>		<u>lbs CO₂/yr</u>			
<input type="checkbox"/>	Replace # 75w incand. bulbs w/ 19w CFLs ²	_____	X 55 =	_____	by _____	
<input type="checkbox"/>	Purchase # 100kWh or "Green Electricity" ²	_____	X 200 =	_____	by _____	
<input type="checkbox"/>	Reduce showers by # minutes for one year ²	_____	X 171 =	_____	by _____	
<input type="checkbox"/>	Plant # trees ⁸	_____	X 25 =	_____	by _____	

WASTE	<u>#</u>		<u>lbs CO₂/yr</u>			
<input type="checkbox"/>	Reduce/re-use # plastic bags/week ³	_____	X 23 =	_____	by _____	
<input type="checkbox"/>	Reduce/re-use # plastic bottles/week ³	_____	X 57 =	_____	by _____	
<input type="checkbox"/>	Reduce/re-use # aluminum cans/week ⁷	_____	X 18 =	_____	by _____	
<input type="checkbox"/>	Reduce/re-use # glass bottles/week ⁷	_____	X 16 =	_____	by _____	
<input type="checkbox"/>	Recycle # lbs paper/week ⁷	_____	X 10 =	_____	by _____	

TRANSPORTATION	<u>#</u>		<u>lbs CO₂/yr</u>			
<input type="checkbox"/>	Carpool # days/week ⁹	_____	X 800 =	_____	by _____	
<input type="checkbox"/>	Fly # fewer miles ³	_____	X 0.9 =	_____	by _____	
<input type="checkbox"/>	Buy a car with # better mpg than current car ⁵	_____	X 83 =	_____	by _____	
<input type="checkbox"/>	Drive # fewer miles/week ⁷, _____ mi ÷ _____ mpg	_____	X 1,248 =	_____	by _____	
<input type="checkbox"/>	For a 500 mile flight, take the train instead ²		205 →	_____	by _____	
<input type="checkbox"/>	Tune up your car ⁷		900 →	_____	by _____	
<input type="checkbox"/>	Maintain adequate tire pressure (usually around 32 psi) ⁷		250 →	_____	by _____	
<input type="checkbox"/>	Maintain maximum tire pressure (usually around 35 psi) ⁷		500 →	_____	by _____	

FOOD	<i>(Use the % change you are willing to make)</i>	<u>%</u>		<u>lbs CO₂/yr</u>		
<input type="checkbox"/>	Replace red meat with fish, eggs, and poultry ²	_____	X 950 =	_____	by _____	
<input type="checkbox"/>	Move from meat diet to ovo-lacto veg. diet ¹	_____	X 2,156 =	_____	by _____	
<input type="checkbox"/>	Move closer to 100% organics as a vegetarian ¹	_____	X 3,124 =	_____	by _____	
<input type="checkbox"/>	Move from ovo-lacto diet to vegan diet ¹	_____	X 1,848 =	_____	by _____	
<input type="checkbox"/>	Move closer to 100% organics as a vegan ¹	_____	X 2,244 =	_____	by _____	

SUBTOTAL = _____

Name: _____

SUBTOTAL (from other side) + _____

Email: _____

TOTAL REDUCTIONS =

SOURCES

- | | |
|--|--|
| a. http://www.eia.doe.gov/oiaf/1605/factors.html | 4. http://www.dep.state.fl.us/mainpage/tips/default.htm |
| b. http://pdf.wri.org/wri_co2guide.pdf | 5. http://www.epa.gov/climatechange/emissions/ind_calculator.html |
| c. http://en.wikipedia.org/wiki/Short-haul | 6. http://www.unc.edu/~mccarty/lawncareestimates.htm |
| d. http://www.epa.gov/cleanenergy/powerprofiler.htm/ | 7. http://www.fiu.edu/~envstud/labs/CO2Audit.htm |
| 1. http://www.chesapeakeclimate.org/pages/page.cfm?page_id=29 | 8. Gershon, David. <i>Low Carbon Diet</i> . Empowerment Institute, 2006 |
| 2. http://www.thegreenguide.com/doc/119/calculator | 9. http://www.climatecrisis.net/takeaction/whatyoucando/ |
| 3. http://www.timeforchange.org/what-is-a-carbon-footprint-definition | 10. http://www.powerscorecard.org/reduce_energy.cfm |