

St. Dennis Care of Creation Team - Basic Carbon Footprint Estimate Calculator (Revised 03/18)

Name:		Date:	
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Source	Type (if applicable)	Annual Household Usage <i>Enter your values below:</i>	Unit	/	Constant <i>Units per ton of CO₂e</i>	=	Tons of CO ₂ e per year
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Electricity	Electricity		Kwh	/	1260	=	
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**For MGE electricity, look up your household at the website below. Multiply your monthly average kilowatt hours (Kwh) by 12 and enter the result above as your annual usage.*

<https://www.mge.com/customer-service/home/average-use-cost/>

Offsets	Solar & wind power		Kwh	/	(1260)	=	
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Heating	Oil		Gallons	/	89	=	
	Propane		Gallons	/	161	=	
	Natural Gas - see note below*		Therms	/	208	=	

**For MGE natural gas, look up your household at the website below. Multiply your monthly average therms by 12 and enter the result above as your annual usage.*

<https://www.mge.com/customer-service/home/average-use-cost/>

Vehicles	Gasoline <i>(fill out wkst. on 2nd page)</i>		Gallons	/	102	=	
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Air Travel	See instructions on 2nd page		Metric tons CO ₂ e	/	0.907	=	
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Source	Options for Household Members	Assign Household Members to Options ("1" Per Person)	Unit	x	Constant <i>Tons of CO₂e per Unit</i>	=	Tons of CO ₂ e per year
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Food <small><i>For each household member, select the best option. See chart on back for a breakdown of these options.</i></small>	'Meat Lover'		Persons	x	3.3	=	
	Average		Persons	x	2.5	=	
	No Beef		Persons	x	1.9	=	
	Vegetarian		Persons	x	1.7	=	
	Vegan		Persons	x	1.5	=	

Waste & Recycling <small>Select per person</small>	Don't recycle		Persons	x	0.346	=	
	Recycle (metal, plastic, glass, & paper)		Persons	x	0.201	=	

Number of people in household:		Estimated tons of CO ₂ e generated by household:	
		Estimated tons of CO ₂ e generated per member of household (total divided by number of people in household):	

Notes:

- This worksheet estimates a household's annual carbon footprint in the above areas, and does **not** attempt to estimate its entire carbon footprint. For example, it does not factor in the carbon footprint of manufacturing and transporting most purchased goods.
- This worksheet uses short tons (=2,000 lbs)
- "CO₂e" refers to carbon dioxide (CO₂) equivalents.

References:

- "Compare Old and New Fuel Economy Estimates." www.fueleconomy.gov, <https://fueleconomy.gov/feg/compareMPG.shtml>
- "ENVIRONMENTAL AND SUSTAINABILITY 2016 REPORT Revised and updated September 2017." Madison Gas and Electric (MGE), page 8, <https://www.mge.com/images/PDF/ECA/EnvResRpt-2017.pdf>
- "Flight carbon footprint calculator." Carbon Footprint, <https://calculator.carbonfootprint.com/calculator.aspx?tab=3>
- "General Provisions Subpart A, Greenhouse Gas Reporting Program". United States Environmental Protection Agency, https://www.epa.gov/sites/production/files/2018-02/documents/generalprovisions_infosheet.pdf
- "Greenhouse Gases Equivalencies Calculator - Calculations and References." United States Environmental Protection Agency, <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>
- "List of Assumptions for Household GHG Calculator." United States Environmental Protection Agency, <https://www3.epa.gov/carbon-footprint-calculator/data/GHGCalculator.xls>
- Wilson, Lindsay. "The carbon footprint of 5 diets compared." Shrink That Footprint, <http://shrinkthatfootprint.com/food-carbon-footprint-diet>

Vehicle Usage Calculator

Calculate total gallons used per year for all household by dividing each vehicle's miles per year by its average miles per gallon.

Vehicle #1	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #2	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #3	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #4	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #5	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #6	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	
Vehicle #7	Miles Per Year		/	Miles Per Gallon		=	Gallons Per Year	

You can use the website linked to below to look up a vehicle's average miles per gallon (MPG):

<https://fuelconomy.gov/feg/compareMPG.shtml>

Total Gallons Per Year	
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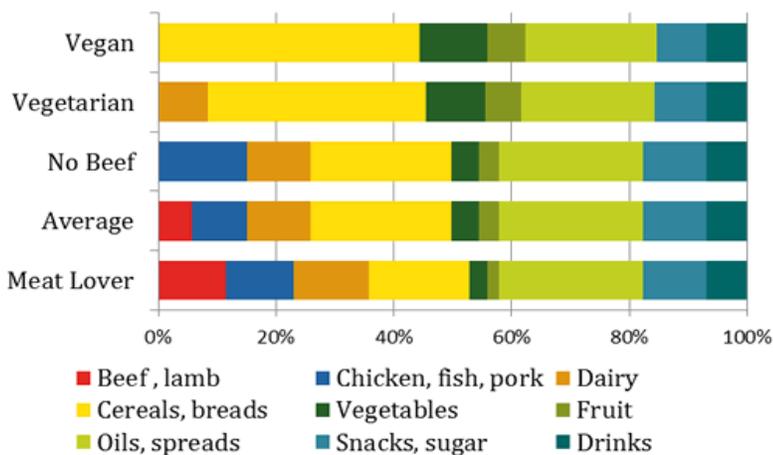
Air Travel

Instructions:

- Navigate to the following website: <https://calculator.carbonfootprint.com/calculator.aspx?tab=3>
- On the "Flight carbon footprint calculator" page, calculate the carbon footprint of all flights taken by household members in the past year.
- Enter the total metric tons of CO₂e as the "Annual household usage" for your household for Air Travel on the 1st page.

Food: The diet options in the Food section reflect the sample diets broken down in the table below. For each household member, choose the option that best matches their general diet.

Sample Diets: distribution of food energy



Note: Each of the four example diets have been based on 2,600 kcal of food consumed per day, roughly the same as an average American. This figure should not be confused with total food supply which is around 3,900 kcal/day.

Sources: ERS/USDA



Source: Wilson, Lindsay. "The carbon footprint of 5 diets compared." Shrink That Footprint, <http://shrinkthatfootprint.com/food-carbon-footprint-diet>