

Alaska Carbon Calculator

```

window.onload=function(){
Nifty("div.hometop,div.transtop","top");
Nifty("div.homebot,div.transbot","bottom");
Nifty("div.total,div#hometitle,div#transtitle");
}

```

```

input {vertical-align:middle}
div#container{width:660px;margin: 0 auto;padding:10px 0;text-align:left}
div#home{float:left;width:300px;padding:10px 0;margin:5px 0}
div#trans{float:right;width:355px;padding:10px 0;margin:5px 0}
div.hometop{padding:4px 0;margin:0;background: #000066}
div.transtop{padding:4px 0;margin:0;background: #FF9900}
div#hometitle{padding: 4px 0;margin:0;background: #990000; margin-bottom:5px;}
div#transtitle{padding: 4px 0;margin:0;background: #990000; margin-bottom:5px;}
div#hometitle h1 {margin: 0 .4em; padding:0; font-weight:bold; color:#FFFFFF; float:left; vertical-align:middle}
div#transtitle h1 {margin: 0 .4em; padding:0; font-weight:bold; color:#FFFFFF; float:left; vertical-align:middle}
div#hometitle p.float {float:left; margin: 0 .5em; font-weight:bold; color:#FFFFFF; vertical-align:middle;}
div#transtitle p.float {float:left; margin: 0 .5em; font-weight:bold; color:#FFFFFF; vertical-align:middle;}
div.hometop h1 {margin-left:.5em; font-weight:bold; color:#FFFFFF}
div.hometop h3 {margin: 0 .5em; color:#FFFFFF; vertical-align:middle; float:left }
div.hometop img {vertical-align: text-top; float:right; margin: 0 .5em}
div.hometop select {float:left; margin: 0 .5em}
div.hometop p.float {float:left; margin: 0 .5em; color:#FFFFFF; font-weight:bold}
div.transtop h1 {margin-left:10px; font-weight:bold; color:#FFFFFF}
div.transtop h3 {margin: 0 .5em; color:#FFFFFF; vertical-align:middle; float:left }
div.transtop img {vertical-align: text-top; float:right; margin: 0 .5em}
div.transtop select {float:left; margin: 0 .5em}
div.transtop p.float {float:left; margin: 0 .5em; color:#FFFFFF; font-weight:bold}
div.homebot{padding: 6px 0;margin-bottom:5px;background: #8FD6EC}
div.transbot{padding: 10px 0;margin-bottom:5px;background: #FFDD88}
div.homebot p {margin: 4px 10px; margin-top:0; color:#000000}
div.transbot p {margin: 14px 10px; margin-top:0; color:#000000}
div.total{ margin-left: 14px;background: #999999; width:450px}
div.total p {margin: 10px; font-weight:bold; color:#FFFFFF}
div.transbot p.p1 {margin: 2px 10px;}
div.transbot p.p2 {margin: 2px 10px;}
div.spacer {clear: both;}

```

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input.i1 {margin: 0 2px; vertical-align:middle}
```

Each of us personally affects global warming by the greenhouse gases we emit, either directly or indirectly. Use this calculator to compute your personal "carbon footprint," the amount of carbon that you as an individual are contributing to global warming. Notice which sections bring your emissions up the most, then visit the Alaska Carbon Reducer for simple tips to reduce your emissions. We can all make a difference!

New!

Check out the Yup'ik translation of the Alaska Carbon Calculator - Alaska-mi Carbon-aam Cuqyutii.

Warning: The Alaska Carbon Calculator needs JavaScript to function properly. Your browser is currently set to NOT run JavaScript. You need to enable this feature to use this calculator.
[Click here for instructions on how to enable JavaScript in many popular browsers.](#)

Total Individual CO2 emissions:

pounds

Home:

pounds CO2

Location:

{jgbox linktext:=[] width:=[400] height:=[325]}

Where do you live?

The greenhouse gas emissions produced by your electrical use depends upon the mix of fuels your utility uses to generate electricity. Along the Alaskan Railbelt (Fairbanks – Matanuska/Susitna - Anchorage – Kenai Peninsula), the electric utilities share generation resources that include natural gas, coal, and oil-derived fossil fuels and hydroelectric power. In Southeast Alaska, many utilities make use of hydroelectric power in addition to oil-derived fossil fuels. In most of the rest of the State, diesel-fired generators are the predominant source of electricity. Kotzebue Electric Association and the Alaska Village Electric Cooperative serving Western Alaska have begun to install wind turbines to supplement their diesel-fired generators.

Click Anywhere Outside This Box to Return

{/jgbox}

Anchorage
Mat-Su
Kenai Peninsula
Interior
Southeast
Kodiak
Southwest
Western (Y-K)
Aleutians
Northwest
Kotzebue
Arctic

Where do you live?

Renewable Energy:

{jgbox linktext:=[] width:=[300] height:=[200]}

Renewable Energy

Calculator automatically looks up the percentage of electricity that comes from renewable resource based on where you live.

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{/jgbox}

%

Your percentage electricity that comes from renewable resources such as wind and hydro.

Household:

{jgbox linktext:=[] width:=[350] height:=[225]}
Household

When your personal contribution to greenhouse gas emissions is calculated, the total emissions of the house you live in are divided by the number of people in your house. This applies to home heating and electricity emissions that are derived from your estimated average monthly bills for home heating and electricity.

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{/jgbox}

1
2
3
4
5
6+

To calculate your individual contribution, input the number of people in your household.

Electric:

{jgbox linktext:=[] width:=[400] height:=[300]}
What is your Average Monthly Electric Bill?

We've taken your estimate of your average monthly electrical bill, divided that by the average cost per kWh in your region to get a rough estimate of your annual kWh consumption. We've multiplied the annual kWh consumption estimate by the average greenhouse gas emissions per kWh for a rough estimate of the emissions associated with your electricity consumption.

For Alaskans who receive PCE, please input the bill you pay. We have taken into account PCE in the calculation of kWh consumption.

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{/jgbox}

- Choose (\$0)
- \$1-\$25
- \$26-\$50
- \$51-\$75
- \$76-\$100
- \$101-\$150
- \$151-\$200
- \$201-\$250
- \$251-\$300
- \$300+

Household average monthly electric bill.

Gas:
{jgbox linktext:=[] width:=[300] height:=[250]}
What is your Average Monthly Gas Bill?

We've taken your estimate of your average monthly natural gas bill and assumed you have a furnace/boiler of average efficiency and estimated the associated annual greenhouse gas emissions.

Click Anywhere Outside This Box to Return
{/jgbox}

- Choose (\$0)
- \$1-\$25
- \$26-\$50
- \$51-\$75
- \$76-\$100
- \$101-\$150
- \$151-\$200
- \$201-\$250
- \$251-\$300
- \$300+

Household average monthly natural gas bill.

Heating Oil:
{jgbox linktext:=[] width:=[300] height:=[250]}
What is your Average Monthly Heating Oil Bill?

We've taken your estimate of your average monthly heating oil bill and assumed you have a furnace/boiler of average efficiency and estimated the associated annual greenhouse gas emissions.

Click Anywhere Outside This Box to Return

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Choose (\$0)
 \$1-\$25
 \$26-\$50
 \$51-\$75
 \$76-\$100
 \$101-\$150
 \$151-\$200
 \$201-\$250
 \$251-\$300
 \$300+

Household average monthly heating oil bill.

Propane:

{jgbox linktext:=[] width:=[300] height:=[250]}

What is your Average Monthly Propane Bill?

We've taken your estimate of your average monthly propane bill and assumed you are using heaters/ranges/stoves of average efficiency and estimated the associated annual greenhouse gas emissions.

Click Anywhere Outside This Box to Return

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Choose (\$0)
 \$1-\$25
 \$26-\$50
 \$51-\$75
 \$76-\$100
 \$101-\$150
 \$151-\$200
 \$201-\$250
 \$251-\$300
 \$300+

Household average monthly propane bill.

Wood

{jgbox linktext:=[] width:=[400] height:=[400]}

How many cords of wood do you burn a year?

A cord of wood is the amount of wood that fits into a stack 4 feet x 4 feet x 8 feet.

To calculate your carbon footprint from using wood, it is important to know what will subsequently happen to the land from the trees were harvested. If the land is paved or otherwise used so that trees will no longer grow there, then the carbon cycle has been broken. The carbon dioxide generated by burning the wood will not be absorbed by new growing

trees in that location, and it is appropriate to charge the resulting carbon dioxide to your carbon footprint. If trees will re-grow in that area then the carbon cycle is not broken, and it is appropriate to determine that the activity is essentially carbon neutral, so that there is no contribution to your carbon footprint. If you buy your wood from someone else, you can ask them about the subsequent use of the land from which they have harvested the trees.

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Cords of wood burned in your household each year?

Will new trees grow where the wood was harvested?

No
Yes

Transportation:

pounds CO2

Car or Motorcycle

{/jgbox linktext:=[] width:=500 height:=425}

What kind of vehicles do you use either as a driver or passenger?

In general the larger the vehicle you drive, the larger the engine and the more greenhouse gases are generated for each mile of travel. Smaller cars usually have smaller engines and are lighter than other cars, trucks, mini-vans and Sport-Utility Vehicles (SUVs). SUVs and trucks, in addition to burning more fuel than other vehicles, do not have the same emissions controls as cars and generally produce more emissions per gallon consumed than cars.

Examples

Small Motorcycle: 250-500cc

Large Motorcycle: 1000cc+

Small Hybrid: Toyota Prius, Honda Civic

Large Hybrid: Ford Escape, Mazda Tribute

Small Car: Honda Civic, Toyota Corolla, Pontiac Vibe, Ford Focus

Midsize: Chevrolet Malibu, Kia Optima, Saturn Aura, Toyota Camry

Full Size: Chevrolet Impala, Ford Taurus, Honda Accord

Small SUV : Subaru Forester, Toyota RAV, Honda CRV, Ford Escape

Medium SUV: Chevrolet Trailblazer, GMC Envoy, Honda Pilot, JEEP

Large SUV, Truck: Cadillac Escalade, Dodge RAM, Ford F150

None: Walk, Bike

How many miles do you personally use your car or motorcycle every year?

Here you need to enter the number of miles that you actually ride in a car or on a motorcycle. Unless you are always in the car whenever it is traveling, your number will be less than the annual total mileage for that vehicle. (In other words, average Alaskan yearly car mileage is around 12,000 miles per year, but your number will probably be less than that.)

If you leave your car idling outside during the winter to keep it warm, you generate additional emissions that are not incorporated into this calculator. Please consider plugging in your car to help reduce the emissions associated with cold starts and long idles in the winter. The amount of emissions associated with the electricity used to keep the engine and/or oil warm is small compared to the emissions associated with cold starts and long idle times in the winter.

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Vehicle #1:

- None
- Small Motorcycle
- Large Motorcycle
- Small Hybrid
- Large Hybrid
- Small Car
- Midsized
- Full Size
- Small SUV
- Medium SUV
- Large SUV, Truck

Yearly mileage as driver or passenger:

Vehicle #2:

- None
- Small Motorcycle
- Large Motorcycle
- Small Hybrid
- Large Hybrid
- Small Car
- Midsized
- Full Size
- Small SUV
- Medium SUV
- Large SUV, Truck

Yearly mileage as driver or passenger:

Commercial Air Miles

{jgbox linktext:=[] width:=[400] height:=[500]}

Commercial Air Miles

We've used national average passenger miles per gallon of jet fuel for a domestic or international flight originating in the U.S. and applied both the CO2 and non-CO2 greenhouse gas emissions per gallon to estimate greenhouse gas emissions per average passenger mile.

Sample Flights - Round Trip Mileage

Anchorage - Fairbanks
520

Anchorage - Seattle
2880

Anchorage - Juneau
1136

Anchorage - Barrow
1450

Anchorage - Bethel
786

Anchorage - Kodiak
514

Anchorage - Kotzebue
1300

Anchorage - Honolulu
5560

Anchorage - Houston
6560

Anchorage - New York
6740

Anchorage - Puerto Vallarta
7040

Anchorage - London
8940

Fairbanks - Barrow
1008

Fairbanks - Juneau
1252

Fairbanks - Kotzebue
882

Fairbanks - Bethel
1006

Fairbanks - Frankfurt
8800

Fairbanks - Frankfurt
8800

Juneau - Ketchikan
460

Ketchikan - Seattle
1296

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Approx. yearly commercial air mileage:

Recreation / Subsistence (in hours/year)
{jgbox linktext:=[] width:=[400] height:=[250]}
Recreation / Subsistence

Alaskans love the outdoors and many use a variety of vehicles for recreation and subsistence activities. Many of these recreational vehicles burn fuel and generate greenhouse gas emissions. For those that burn fuel, we've estimated a middle range of fuel consumption per hour and associated greenhouse gas emissions.

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ORV (four-wheelers, snow machines) average performance

ORV (four-wheelers, snow machines) high performance
Outboard Motor Boat, Jet Ski, small
Outboard Motor Boat, Jet Ski, large/hi-performance
Inboard Motor River Boat
Ocean Fishing Boat
Single Engine Plane
Twin Engine Plane
Sailboat
Motor Home (travel time)

Total Individual CO2 emissions:

pounds