

Carbon Reduction Strategies



Why Do We Need to Reduce Carbon Use?

Human activities during the 20th century have caused the overall temperature of the global surface to increase. In particular, by burning fossil fuels, we have forced the level of carbon dioxide in the atmosphere to rise. In order to slow climate change, we need to reduce the amount of carbon that we are emitting into the atmosphere.

How Can We Reduce Carbon Use?

As individuals



Our daily activities and choices impact how much carbon we emit on an individual basis.

As a community



Local governmental policies and neighborhood designs impact how much carbon communities emit on a daily basis.

As a nation



Federal policies and national infrastructure impact how much carbon our country emits.

Reducing Carbon: Personal Strategies

We emit carbon when we choose to do almost anything that requires energy. Here are some personal strategies to help limit carbon emissions.

ENERGY USE:

Using natural light and opening the windows (in summer without air conditioning) are great strategies for reducing energy use.



- Use natural light whenever possible. When light is needed, use energy efficient light bulbs. Turn lights off when not in use.
- Open windows to allow air circulation. Set thermostat as a reasonable temperature to decrease energy use which means setting the temperature higher in summer and colder in winter.

TRAVEL:

Walking or other human powered travel such as biking, rollerblading or skateboarding is the best strategy for reducing carbon emissions during travel.



- Ride a bicycle.
- Take public transportation such as a bus or train.
- Coordinate carpools with friends or neighbors.
- Drive an energy efficient vehicle. Vehicles that get poor gas mileage—like sport utility vehicles—are the worst choice.

CONSUMPTION:

We emit a lot of carbon to create and ship products, so only buy what you absolutely need and buy products grown or made locally.



- If you must buy something, consider its efficiency in terms of production and transportation.
- Fix something instead of replacing it.
- Recycle, reuse, and reduce your waste stream

Reducing Carbon: Community Strategies

Communities can make policy changes and design decisions in order to promote carbon reducing behaviors amongst the residents. Here are some ways communities can reduce carbon emissions.



BAN SINGLE USE ZONING

Cities are sprawling out. Since industrial, residential and commercial areas are spread out, suburban residents tend to emit more carbon than city residents because they need to drive everywhere. Experts believe that urban sprawl can be controlled by banning single-use zoning so residences can be closer to commerce and industry.



PROMOTE PUBLIC TRANSPORTATION

If more Americans used public transportation, the country could significantly reduce carbon emissions. But most people drive by themselves because it's easier and cheaper. Communities need to provide convenient cost-effective public transit opportunities so people are enticed to choose the lower emissions travel option.



CREATE CLUSTER HOUSING

When residential developments cluster the houses close together, it leaves open space that can be preserved as nature or turned into local agricultural production. Retaining green space and having locally available agriculture are great ways to minimize carbon emissions and enhance your lifestyle by providing nearby natural surroundings. Cluster housing also tends to promote lower emission travel opportunities like walking, biking and public transportation.



COORDINATION OF SERVICES

Communities are not frequently designed with a central location for services. Since services are spread out, people are required to travel between places to get things done. That excess travel emits extra carbon. If a community had a central location offering all necessary services—such as shopping, education, and healthcare—residents could cut down on travel and reduce carbon emissions.

Reducing Carbon: National Strategies

In order to drastically lower carbon use nationwide, the country needs to make significant policy changes and infrastructure upgrades in order to promote conservation.

Tax Carbon-Based Energy Use



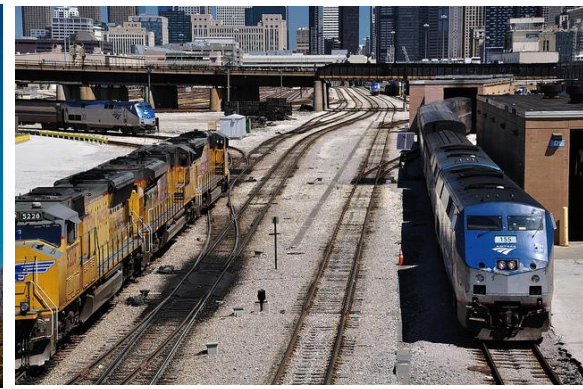
America consumes over 80% of its energy from fossil fuels. Fossil fuels such as oil and coal release carbon dioxide as they are burned to generate heat for energy. Every demand sector--such as transportation, industry, residential, and commercial—relies heavily on these carbon-based energy sources. In order to promote carbon conservation, the country could implement a tax on carbon-based energy use to encourage its responsible use.

Convert to Non-Fossil Energy Sources



Currently, sustainable energy sources represent only a small percentage of overall energy consumption in the U.S. Yet, there are many of these non-fossil energy sources available such as wind, water, and sunlight. By converting to non-fossil energy sources, the country could reduce carbon emissions dramatically.

Upgrade National Rail System



The country needs to upgrade the national rail system so that it provides convenient, cost-effective ground transportation. Right now, people often choose automobiles for personal transportation and trucks for moving freight. With an improved rail system, more people and more freight could move around the country while lowering carbon emissions considerably.