

# Norwich Energy Committee and Sustainable Energy Resource Group

## *SOLAR HOT WATER CHALLENGE*

### Contacts

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### Websites for Incentives and Tax Credits

Federal Incentives for Renewable Energy:

[www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=US37F&State=Federal&currentpageid=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=US37F&State=Federal&currentpageid=1)

IRS Energy Tax Credit Form: [www.irs.gov/pub/irs-pdf/f5695.pdf](http://www.irs.gov/pub/irs-pdf/f5695.pdf)

Vermont Solar Energy Incentive: [www.rerc-vt.org/incentives/index.htm](http://www.rerc-vt.org/incentives/index.htm)

Clean Energy Development Fund:

[http://publicservice.vermont.gov/energy/ee\\_cleanenergyfund.html](http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html)

### Steps to sustainability

**\*\*Conservation:** use less, live thoughtfully and avoid waste

**\*\*Efficiency:** convert to more efficient vehicles and appliances over time

**\*\*Renewables:** energy sources that use little or no fossil fuel

### Our Fossil Fuel/CO<sub>2</sub> Footprint

Total tons of CO<sub>2</sub> per American household as share of GNDP = **59 tons**

Total tons produced per household by the rest of the world = **10 tons**

Each gallon of gasoline releases 19.5 pounds of CO<sub>2</sub> into the atmosphere.

#### Annual CO<sub>2</sub> Emitted by an Average Vermont Household<sup>1</sup>

Driving	720 gallons	7.0 tons CO <sub>2</sub>
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Heating	950 gallons	9.3 tons CO <sub>2</sub>
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Hot water	230 gallons	2.2 tons CO <sub>2</sub>
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Electricity	7,300 kWh	4.8 tons CO <sub>2</sub>
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Food supply	400 gallons	3.9 tons CO <sub>2</sub>
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**2,300 gallons + kWh=27.2 tons CO<sub>2</sub>**

+ fuel used in manufacturing, construction, and military

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<sup>1</sup> 2003 figures from <http://www.thehcf.org/emaila5.html>

## How to Reduce CO2 Emissions

**Energy conservation** can reduce household CO2 by up to **50% (12+ tons)**.

\*Insulate, reduce air infiltration, fix water leaks

\*Combine trips, car pool, use public transportation, work from home

\*Install low-flow showerheads and aerators

\*Buy only the things that will really improve your life and buy for the long run

\*Hand wash dishes, dry clothes on a rack rather than in a clothes dryer

\*Grow your own food, pursue Community Supported Agriculture, buy local whenever possible

**Efficiency** can reduce household equipment use by **20-75% per item (7+ tons)**.

\*Choose a vehicle with a high mpg rating (**2.3-5 tons**)

\*Replace old or malfunctioning refrigerator (**1 ton**)

\*Select a front loading clothes washer, which uses 2/3 less water & soap (**0.6 tons**)

\* Replace 20 lights with compact fluorescents (**1 ton**)

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## Resources

### Internet

A collection of carbon footprint calculators, <http://www.pathtofreedom.com/calculators.shtml>

Vermont Peak Oil Network <http://vtpeakoil.net/>, in-depth resource site including a state calendar.

First Branch Sustainability Project information and discussion page,

<http://www.vtpeakoil.net/community/folder.php?id=2>

SERG, Sustainable Energy Resource Group <http://www.serg-info.org/>

VPIRG, Vermont Public Interest Research Group <http://www.vpirg.org/>

Step It Up, <http://www.stepitup2007.org/>

Oil drum, <http://www.theoil drum.com/> Extensive blog on peak oil and related issues.

Public Service Broadcasting, "For A Post Carbon World," <http://globalpublicmedia.com/>

The Renewable Energy Resource Center, [www.rerc-vt.org](http://www.rerc-vt.org), 877-888-7372

### Books

*The Citizen-Powered Energy Handbook: Community Solutions to a Global Crisis*, Greg Pahl.

Tackling Climate Change in the U.S. (Am. Solar Energy Society, free@

<http://www.ases.org/climatechange>)

*The Party's Over: Peak Oil and Its Implications*, Richard Heinberg

### DVDs

*An Inconvenient Truth*, Al Gore: excellent overview of the conservative science.

*The Great Warming*, CBC documentary also good

*The Power of Community: How Cuba overcame oil and food supplies being shut down.*

## THANK YOU for your Generous Support

**Mascoma Savings Bank** at [www.mascomabank.com](http://www.mascomabank.com)

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\*groSolar \*Sun Catcher \*ReKnew Energy Systems \*USA Solar Stores \*South Face