

Make the 2007 ACA Meeting Climate Neutral

Science is the search for an objective understanding of the way things are and work. The best scientists are intellectually ambitious, rigorous, and creative. They are independently minded and instinctively look for the weaknesses and alternative explanations in the work of others. Therefore, when scientists in a large and dynamic field reach a consensus their collective opinion should be taken very seriously. So it is with Global Climate Change, where strong scientific consensus states that human activity is on track to cause worldwide challenges that within a few tens of years are likely to be very serious and possibly catastrophic.

We therefore hope that members of the ACA will join our effort to make the 2007 annual meeting Climate Neutral. We cannot prevent all greenhouse gas emissions, but we can ensure that the net result of our activities decreases rather than increases the amount of CO₂ in the atmosphere. This goal can be achieved by offsetting the CO₂ released as a consequence of attendees and vendors flying to the meeting and use of the conference center and hotels. There are two general approaches to achieving this goal, conservation and alternative technologies, both of which will be used.

Thoughts of conservation typically include fuel-efficient vehicles, telecommuting, public transportation, compact fluorescent light bulbs, and turning off lights, printers, and computers when not in use, all of which are important. We are going to take the alternative approach of supporting a tropical rainforest preservation/reforestation program. These programs allow local people to develop out of poverty through activities such as highly sustainable harvesting and ecotourism. Thereby preventing the release of CO₂ through burning/clearing of forest for unsustainable harvesting of wood or for agriculture. This mechanism is effective in preventing CO₂ release and, as with most good ideas, there is more than one benefit. Destruction of rainforests causes about 25% of all CO₂ emissions. In 1950, tropical rainforests covered about 14% of the earth's land surface, today it is about 7%, and it is projected that at the current rate rainforests will have largely disappeared in 40 years. Rainforests have been called the lungs of the planet and may be home to more than 50% of the world's species. Their loss would be an epic calamity, and for these reasons we have pledged to offset CO₂ emissions associated with the meeting by rainforest preservation. At the time of press, the exact details of this purchase are still being negotiated, but will probably offset about 50% of the emissions associated with the meeting. Details will be announced at the meeting and reported in future issues of RefleXions.

We have also established a wind energy campaign that will allow attendees and vendors to additionally offset the consequences of CO₂ emission, with total contributions for the ACA campaign updated and posted monthly (<http://windpower.utah.edu>). Most of our electricity is produced from burning coal, a process that causes more than 30% of the total CO₂ emissions in the USA. Furthermore, use of coal to produce electricity causes 40% of all mercury pollution in the USA and the EPA recently announced that one sixth of US women of childbearing age carry mercury above their level of concern for the fetus. In contrast, production of electricity from wind has very low environmental impact, it is highly cost effective, and the potential for its increased utilization is huge. According to the US Department of Energy we could produce 150% (yes, 150%!) of our electricity from wind, although the current amount is just 0.6%. In contrast, Denmark currently makes more than 20% of its electricity from wind and has recently

announced plans to increase this to 50% by 2025. Our campaign is run through the University of Utah and, to the best of our knowledge, it is the most cost effective way for individuals to fund wind energy in the country. The donations fund construction of new wind turbines that serve the Western US grid and, because of the 1978 energy act, they will necessarily displace the use of fossil fuels, especially coal. The program costs just \$3 per mwh and represents a 5% increment on the standard residential electricity rate. Moreover, donations to this campaign are tax deductible. The impact of an average domestic US flight would be offset by a donation of \$5 (\$3 if accounting for just your own coach class seat but not considering empty or first class seats) and the total impact of an average attendee at the meeting (conference center and hotel) would be offset by an additional \$2. This campaign is also an effective mechanism to mitigate other sources of emission. For example, electricity used by an average university worker (\$30/year), an average US household's electricity (\$30/year), an average US family's total direct fossil fuel use, excluding air travel, (\$90/year).

It is lamentable that the serious warning about climate change from a remarkable scientific consensus is not being taken more seriously by policy leaders. To some extent this is understandable because politicians are obliged to consider input from innumerable sources, including major industries that help drive economic processes that often have a huge resistance to change. As scientists we share a responsibility to raise awareness of the true consensus in our community, accept personal responsibility, and show leadership by taking meaningful action to address the issues directly. We hope that you will join our efforts to make the 2007 ACA meeting Climate Neutral by donating to the ACA campaign on the <http://windpower.utah.edu> web site.

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NOTE

We are advocating a specific campaign because we believe that it is the most cost effective option for individuals to offset their CO₂ emissions and because it allows a campaign approach in which ACA members and friends can work collectively to achieve a significant goal. It is important to note, however, that there are many other programs that one might choose to support, including those listed here.

Carbon Offsets

www.terrapass.com, www.gocarbonzero.org, www.carbonfootprint.com, www.carbonfund.org,
www.nativeenergy.com, www.paxnatura.org, windpower.utah.edu

Other Links

www.climatecrisis.net, www.carbontradewatch.org