

Energy and Its Link to Global Warming

Handout #1: Summary

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Class Description: These days, everyone is talking about energy, carbon dioxide, and global warming. But what do these things have in common? What are they? Where do they come from? Why is it so important?

This class will give you a better (more scientific) understanding of the following three topics:

1. Energy
2. Carbon dioxide (CO₂) and greenhouse gasses
3. Global Warming

This class will be interactive and you can ask any questions you want.

Resources:

Energy:

1. <http://www.ftexploring.com/>, <http://www.ftexploring.com/me/everything.html> - This is a great website written for learning basic energy concepts. Even if you know what energy is and a great deal of physics, this website will be a great review for you in thinking about energy and why it's so important to ... well... everything.
2. <http://www.brainpop.com/science/energy/> - This website uses simple cartoons to explain energy topics in more detail. If you register for a free trial, you get 5 days access to all videos.
3. <http://www.eia.doe.gov/emeu/aer/contents.html> - Official U.S. government annual energy review. I recommend reading this to understand where we get energy from and how we use it. It is quite dense, so try starting with the chapters that appeal to you the most.
4. <http://www.iea.org/index.asp> - This is the international Energy Agency, which deals with world energy issues. Here are some interesting reports, some which are easy to understand, and some which are quite dense. (All reports: http://www.iea.org/publications/free_all.asp)
 - a. Key World Energy Statistics 2009 - http://www.iea.org/publications/free_new_Desc.asp?PUBS_ID=1199
5. Other U.S. Agency websites on energy:
 - a. National Renewable Energy Laboratory - <http://www.nrel.gov/>
 - b. Energy Efficiency and Renewable Energy - <http://www.eere.energy.gov/>
 - c. U.S. Department of Energy - <http://www.energy.gov/>

Global Warming:



1. <http://www.ipcc.ch/> - This is a link to the IPCC (Intergovernmental Panel on Climate Change) reports on climate change. You might remember that the IPCC and Al Gore won the Nobel Peace Prize in 2007). These reports are considered to be the most credible scientific analysis of global warming available and elaborate on all the potential effects of this issue. Items are discussed clearly and with statistical probability to emphasize our confidence level with a particular prediction.
2. <http://www.epa.gov/climatechange/> - The U.S. EPA (Environmental Protection Agency) webpage on global warming.

Other:

1. <http://web.mit.edu/esi/symposium2009-presentations.html> - Interesting discussion on the topic of geoengineering (man-controlled climate). These are some solutions that are being proposed to combat global warming if things get really bad in the future. This is a poorly studied field and potentially very dangerous if we try it before we understand it.

