

Final Paper/Project Topics

A couple of more “projecty” ideas are at the end of the list. With these, make sure you include a reasonable amount of “energy info”.

- 1) **UNFCCC Bali conference;** What is on the agenda? Will developing nations be asked to make greenhouse gas reductions in the successor to Kyoto? What kind of inducements will be offered to the U.S. to participate? What is the process for negotiating the Kyoto successor?
- 2) **Energy & Greenhouse Gas legislation;** What are the bills now making their way through Congress? What are the forces lined up for and against them?
- 3) **Yucca Mountain;** What are the geological properties that make this a promising site for long term high-level waste storage? What are the scientific objections? What are the political forces surrounding the project?
- 4) **Nuclear power in Europe;** What are the attitudes of different European nations towards nuclear power? (Germany is phasing out nuclear power, while Finland is building new plants) How are European countries dealing with spent fuel from nuclear power plants?
- 5) **Advanced nuclear power plant designs;** How have nuclear technologies developed since the last round of U.S. power plants were designed in the 1970's? What is the NRC's process for reviewing applications for new nuclear power plants?
- 6) **Wind power & renewable energy in Denmark;** How did Denmark become a leader in wind power? What other renewable energy sources are being used there? What are plans for the future?
- 7) **Wind power in the U.S.;** What are the arguments for and against wind power? Try to answer the against arguments from the perspective of a wind power proponent. Where are wind power projects happening and why in these particular places? What are federal, state and local governments doing to promote wind power?
- 8) **Renewable Energy in Germany;** How much renewable energy is in place in Germany? How has the government encouraged growth in renewables? What are plans for the future?
- 9) **Solar Technologies;** What ideas are out there for bringing down the cost of solar energy, both in photovoltaics and solar thermal technologies?
- 10) **Passive solar design;** What are the design elements for homes and other buildings that allow them to make efficient use of the solar heating and lighting?

- 11) **Corn based ethanol;** How do estimates of the energy efficiency of corn-based ethanol differ in their assumptions and conclusions? What are the arguments for and against using farmland to grow energy crops? What are the politics of corn based ethanol?
- 12) **Cellulosic ethanol;** What is it? What are some of the different schemes for making and using it? How does the environmental logic of cellulosic ethanol differ from corn based ethanol?
- 13) **Hybrid cars, plug-in hybrids, electric cars;** How do they work? What are the distinctions and relative advantages/disadvantages of these different classes of vehicles? What are their prospects in the marketplace?
- 14) **The hydrogen economy;** What needs to happen to make it work? Is it realistic, or mostly hype? What is the U.S. government doing to move it along? Are any other countries pursuing hydrogen?
- 15) **Chapter of history textbook from 2507 about the age of fossil fuels.**
- 16) **Lesson for high school students about energy and/or global warming.**
- 17) **Lesson for elementary school students about energy and/or global warming.**