

Sustainable Energy/Fall 2008/Mark Aronson SCC

Exam 1/Chapters 1-6

Please answer the following essay questions:

1. Discuss the principles and ethics of sustainability.
2. Discuss the different types of heat engines. Include in your answer a description of the engines used today in power generation and transportation.
3. Discuss the impact of our energy system on the environment.
4. Discuss the concept of economic “externalities”. Why are evaluating externalities important in solving our problems with our energy system?
5. Discuss the economic concepts: economy of scale and learning curve. How are these concepts relevant to the design of our current energy systems?
6. Discuss the linkage between human air emissions of greenhouse gases and global warming. What effects are we likely to see to our environment in the next century?