

FINAL EXAM

Comprehensive Closed book

Be able to describe:

- How wind turbines work
- How solar collectors work/ solar concentrators
- Different ways of collecting energy from the sun
- Hydroelectric power
- Geothermal power
- How to get energy from the ocean
- Biofuels
- The pros and cons of different sources of renewable energy
- Different methods of energy storage

Understand thermal transport;

- Conduction, convection, radiation

Be able to calculate heat or power transfer

Be able to calculate a renewable energy device payback period

Go through all homework sets and the midterm

Know the difference between entropy and energy

Know the difference between energy and power/kinetic vs potential energy

Know the difference between efficiency and capacity

Know the 1st and 2nd laws of thermodynamics

Hubbert Model for resource utilization

Embodied Energy