

Chapter 16 Objectives: "Nonrenewable Energy Resources"

1. List the advantages and disadvantages of using conventional oil, oil from oil shale, and oil from tar sands to heat space and water, produce electricity, and propel vehicles.
2. Distinguish among natural gas, liquefied petroleum gas (LPG), liquefied natural gas (LNG), and synthetic natural gas (synfuels).
3. List the advantages and disadvantages of using natural gas as an energy source.
4. List and describe three types of coal.
5. Indicate which is preferred for burning and which is most available.
6. List and briefly describe three methods for extracting coal.
7. List advantages and disadvantages of using coal as a fuel source.
8. List two processes used to convert coal to synfuels.
9. List advantages and disadvantages of using synfuels.
10. Briefly describe the components of a conventional nuclear reactor.
11. List advantages and disadvantages of using conventional nuclear fission to create electricity, taking into consideration the whole nuclear fuel cycle, including disposal of radioactive wastes, safety and decommissioning of nuclear power plants, and the potential for proliferation of nuclear weapons.
12. Summarize current thinking about disposal of low-level and high-level radioactive wastes.
13. Describe the potential use of breeder nuclear fission and nuclear fusion as energy sources.