

CHAPTER 15: NONRENEWABLE ENERGY

15-1 What is Net Energy and Why Is It Important?

- The Only Energy That Counts



- Energy Resources With Low/Negative Net Energy Yields...

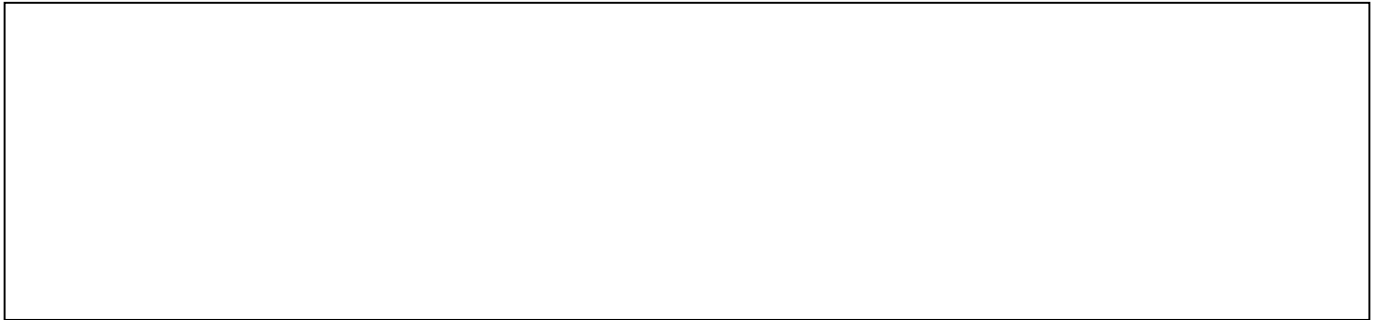


Diagram:

- Reducing Energy Waste



15-2 Advantages and Disadvantages of Using Oil

● Dependence on Oil

● How Long Will Conventional Crude Oil Last?

● OPEC Controls World's Crude Oil

● US Uses More Than It Produces

● Crude Oil: Advantages and Disadvantages

● Heavy Oil From Tar Sand

● Heavy Oil From Oil Shale

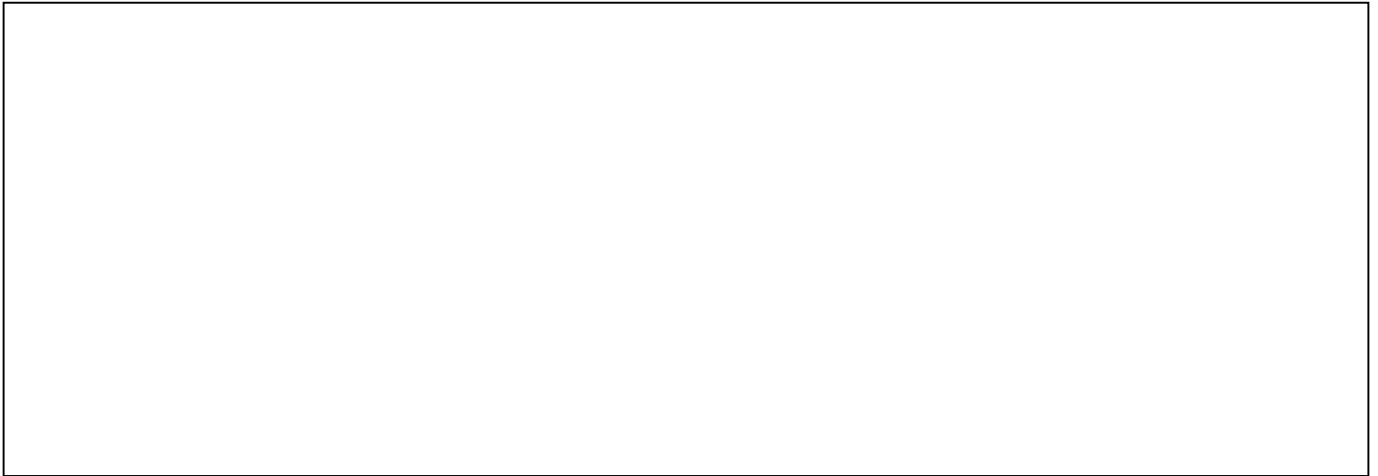
15-3 Advantages and Disadvantages of Using Natural Gas

- Natural Gas Is Useful and Clean-Burning

- Unconventional Natural Gas

15-4 Advantages and Disadvantages of Using Coal

- Plentiful But Dirty



Diagrams: (types of coal, CO₂ emissions)

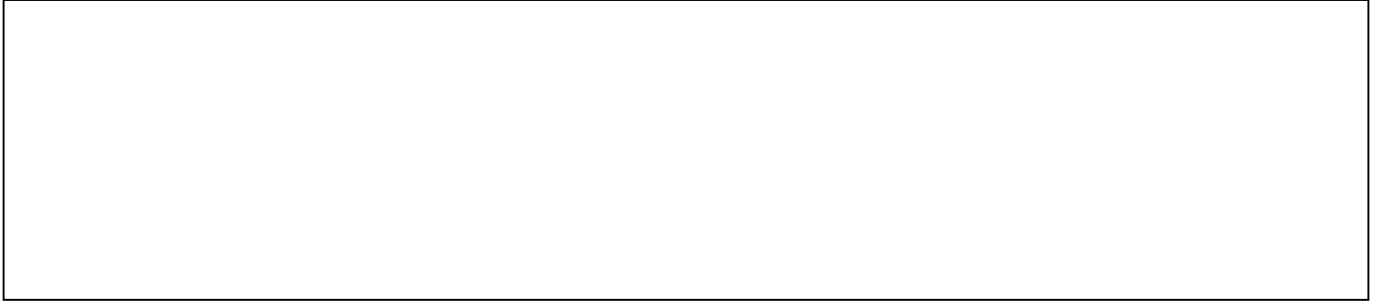
- Coal Ash



- "Clean Coal" and Anti-Coal Campaigns



• Converting Coal Into Gaseous and Liquid Fuels



15-5 Advantages and Disadvantages of Using Nuclear Energy

● Nuclear Fission Reactors

● The Nuclear Fuel Cycle

● What Happened to Nuclear Power?

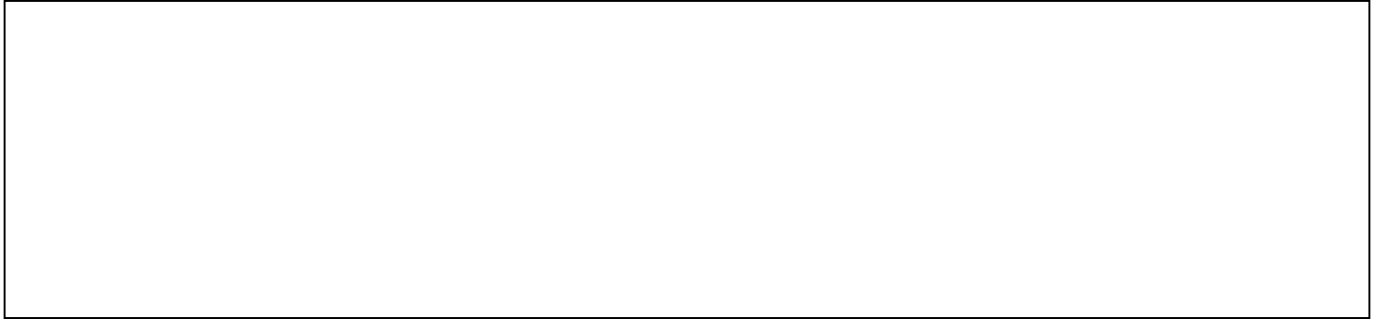
● Chernobyl

● Conventional Nuclear Power: Advantages and Disadvantages

● Storing Spent Fuel Rods



● Dealing With Radioactive Wastes



● High-Level Radioactive Wastes in the US



● What Should We Do With Old Nuclear Power Plants?



• Can Nuclear Power Lessen Dependence on Imported...

• New-Generation Nuclear Reactors

• Nuclear Fusion

• Experts Disagree About the Future of Nuclear Power