

Energy and the Environment

◆ Need/Impact

- ◆ Energy demand expected to triple over 50 years
- ◆ Effects of climate change associated with fossil fuel combustion unknown
- ◆ Water usage and air quality are tied to fossil fuel use

◆ Key research and education areas

- ◆ Perform fundamental research to discover new methods of energy conversion
- ◆ Develop system-level, quantitative understanding of energy-environment interactions
- ◆ Evaluate energy workforce needs and stimulate the evolution of educational programs to meet these needs

Energy and the Environment

◆ NSF's Role

- ◆ Perform fundamental research on energy systems: materials, processes, the integrated electrical grid
- ◆ Develop quantitative models of energy-environment interactions
- ◆ Evaluate societal impacts of new systems

◆ Partnerships

- ◆ Develop interagency working groups, e.g., Hydrogen and Fuel Cells; Biohydrogen
- ◆ Coordinate with DOE