

TOPIC 6.7

Energy from Biomass

Required Course Content

ENDURING UNDERSTANDING

ENG-3

Humans use energy from a variety of sources, resulting in positive and negative consequences.

LEARNING OBJECTIVE

ENG-3.1

Describe the effects of the use of biomass in power generation on the environment.

ESSENTIAL KNOWLEDGE

ENG-3.1.1

Burning of biomass produces heat for energy at a relatively low cost, but it also produces carbon dioxide, carbon monoxide, nitrogen oxides, particulates, and volatile organic compounds. The overharvesting of trees for fuel also causes deforestation.

ENG-3.1.2

Ethanol can be used as a substitute for gasoline. Burning ethanol does not introduce additional carbon into the atmosphere via combustion, but the energy return on energy investment for ethanol is low.

SUGGESTED SKILL

 *Environmental Solutions*

7.B

Describe potential responses or approaches to environmental problems.

**AVAILABLE RESOURCES**

- Classroom Resource > [AP Environmental Science Teacher's Guide](#)
- The Exam > [Chief Reader Report 2018, Q4](#)
- The Exam > [Samples and Commentary 2018, Q4](#)