## **Energy Resources and Consumption**

# TOPIC 6.9 Hydroelectric Power

## **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.L

Describe the use of hydroelectricity in power generation.

#### ENG-3.M

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

## **ESSENTIAL KNOWLEDGE**

### ENG-3.L.1

Hydroelectric power can be generated in several ways. Dams built across rivers collect water in reservoirs. The moving water can be used to spin a turbine. Turbines can also be placed in small rivers, where the flowing water spins the turbine.

### ENG-3.L.2

Tidal energy uses the energy produced by tidal flows to turn a turbine.

### ENG-3.M.1

Hydroelectric power does not generate air pollution or waste, but construction of the power plants can be expensive, and there may be a loss of or change in habitats following the construction of dams.

## SUGGESTED SKILL

UNIT

6

Environmental Solutions

## 7.F

Justify a proposed solution, by explaining potential advantages.

## 

#### **AVAILABLE RESOURCES**

- Classroom Resource > AP Environmental Science Teacher's Guide
- The Exam > Chief Reader Report 2018, Q1 & Q4
- The Exam > Samples and Commentary (2018, Q1, 2018, Q4)