Curriculum Unit Title	Electrical Power: A Quantitative and Qualitative Comparison of Energy Resources	**Author**	Nancy Rudolph

KEY LEARNING, ENDURING UNDERSTANDING, ETC.

Energy is a quantitative property of a system that depends on the motion and interactions of matter and radiation within that system. That there is a single quantity called energy is due to the fact that a system's total energy is conserved, even as, within the system, energy is continually transferred from one object to another and between its various possible forms. (NGSS: PS3.A)

ESSENTIAL QUESTION(S) for the UNIT

How is energy transferred and conserved?

CONCEPT A	CONCEPT B	CONCEPT C
Electrical Power	Comparing Energy Resources Used to Generate Electricity	Electricity Generation in Delaware and Neighboring States
ESSENTIAL QUESTIONS A	**ESSENTIAL QUESTIONS B**	**ESSENTIAL QUESTIONS C**
What is electrical power? How is electricity produced? How does electricity get to our homes?	What are the similarities and differences in the production of electricity from different resources (oil, natural gas, nuclear fission, solar, hydroelectric, geothermal, wind)? What are the factors that affect power density? Explain how.	How is electricity in Delaware (and neighboring states) produced? What are the proportions of renewable and nonrenewable resources used to generate electricity in DE?
VOCABULARY A	**VOCABULARY A**	**VOCABULARY A**
Fossil fuels, hydrocarbons, electrical power, energy flux, thermal pollution, power density	Nuclear fission, PV cell, solar thermal power, hydroelectric, geothermal, biomass	Renewable, nonrenewable resources, proportion

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

Appendices list articles and video resources to support this unit.