



# YALE NATIONAL INITIATIVE

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Curriculum Units by Fellows of the National Initiative  
2024 Volume IV: Energy: Past, Present, and Future

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## **Powering Our Community: An Analysis of Washington D.C.'s Renewable Energy Plan**

Guide for Curriculum Unit 24.04.01, published September 2024  
by Sean Crumley

This curricular unit investigates the sustainable energy plan for Washington, D.C. Like many areas, D.C. currently has a plan to make the city a very sustainable city that “balance[s] the environmental, economic, and social needs of the District of Columbia today as well as the needs of the next generation”. This involves increasing the energy that is sourced from clean and renewable resources. Students will learn about solar energy, wind energy, and biogas to understand how the city plans to transition to a green and sustainable city. Students will learn the physics behind these types of energy production, as well as the potential problems with each type. After that, students will analyze the current plan for D.C. and determine if the plan should adjust the goals to better serve their community. This curricular unit is designed for 11<sup>th</sup> grade students with below-grade level math skills in a neighborhood high school.

(Developed for Physics, grade 11, and Robotics, grades 10-12; recommended for Physics, Environmental Science, and Earth Science, grades 9-12)

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