

Abstract Submitted
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Debating science policy in the physics classroom. SHANNON MAYER, University of Portland — It is critically important that national and international science policy be scientifically grounded. To this end, the next generation of scientists and engineers will need to be technically competent, effective communicators of science, and engaged advisors in the debate and formulation of science policy. We describe three science policy debates developed for the physics classroom aimed at encouraging students to draw connections between their developing technical expertise and important science policy issues. The first debate considers the proposal for a 450-megawatt wind farm on public lands in Nantucket Sound and fits naturally into the curriculum related to alternative forms of energy production. The second debate considers national fuel-economy standards for sport-utility vehicles and can be incorporated into the curriculum related to heat engines. The third debate, suitable for the curriculum in optics, considers solid state lighting and implications of recent United States legislation that places stringent new energy-efficiency and reliability requirements on conventional lighting. The technical foundation for each of these debates fits naturally into the undergraduate physics curriculum and the material is suitable for a wide range of physics courses, including general science courses for non-majors.

Shannon Mayer
University of Portland

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