

SES09-2009-000255

Abstract for an Invited Paper
for the SES09 Meeting of
the American Physical Society

Energy education and its importance to public policy

GORDON CATES, University of Virginia

Energy education is gaining increasing importance as society faces new challenges meeting its energy needs. Students find the topic interesting, and a physics department is a natural place for such courses. At the University of Virginia (UVa) we have developed an introductory course that covers, from a physicist's perspective, various topics related to energy. Included are the production and consumption of energy in our society, the underlying technologies involved, and the implications of resource limitations. While the course includes some basic physics concepts, the material quickly moves into a broader sphere that would not normally be the focus of an introductory-level course in a physics department. The course has attracted a broad range of students from those in their first year seeking to fulfill a science requirement to engineering students with an interest in environmental science. We are also developing at UVa an energy concentration for physics majors in an effort to broaden our offerings in this important area. In addition to addressing a growing interest among students, courses related to energy are arguably an important element in the development of public policy. Indeed, the very types of discussion that occur in such courses represent precisely the types of debates that one would hope to see as politicians develop a viable strategy for the future. Thus, energy education is filling a very real demand from the students, and is serving an important public function as well. Courses related to energy are also an excellent way to attract students that might otherwise not consider studying physics.