Energy Worlds I & II: John Shinn & Robert Baertsch

SJWG Rapporteur Report

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Energy Worlds is organized around themes of science and justice as they relate to public energy issues with particular attention to the various domains in which knowledge about energy issues is formulated, contested, and transformed. We focused on the interrelationships between social and environmental justice and the broad ecologies implicated in human energy production and consumption. Central issues explored by the Energy Worlds subgroup include the relationship between energy networks and global climate change and the environmental health and public welfare implications of post-petroleum transportation systems, alternative electricity economies, resource extraction systems, and other energy production and distribution technologies.

One of the emphases of the Science and Justice Working Group thus far has been on relationships that tie together different communities of practice across disciplines. The title Energy Worlds is indebted to Donna Haraway and her notion of “worlding.” Worlding signifies participation in complex systems of relationships that collectively constitute ways of living and dying across time, space, and species. Like the new worlds being created by the rise of genomics and new forms of property, energy worlds bring experts and laypersons from diverse social spheres into communication. The SJWG has generated an ongoing conversation among individuals with different intellectual, personal, and political commitments who hail from multiple domains of practice. A main goal of Energy Worlds is to identify and experiment with ways of speaking across difference in an effort to address public issues related to science and technology.

Energy Worlds 1:
"Toward a Better Planet"
Dr. John Shinn, Chemical Engineer, Chevron, Inc., Engineers Without Borders, Board of Directors

The first Energy Worlds event featured a presentation by Dr. John Shinn, a chemical engineer who sits on the board of directors for Engineers without Borders and is also a senior staff advisor for global issues at Chevron. He spoke with members of the SJWG and with a lively interdisciplinary audience about pragmatic and creative approaches to energy production/consumption in an era of climate change. His presentation centered on historical and contemporary oil industry reactions to these issues, and how corporations have responded in an evolving fashion to the efforts of NGOs, non-profits, and governments concerned with the environmental and social impacts of existing energy production systems. Dr. Shinn spoke about the surprising opportunities for collaboration and productive tension among these groups, as well as the ways in which different discursive frames and material interests shape what gets talked
about and what gets done. Guided by Dr. Shinn, the SJWG began to explore potential roles for
and conflicts among international, national, and local regulatory apparatuses and energy markets
in addressing climate change and the increased demand for clean and efficient energy systems.

Energy Worlds 2:
"Personalized Rapid Transit (PRT)"
Robert Baertsch
The second event featured a presentation on Personalized Rapid Transit (PRT) systems by Robert
Baertsch, a graduate student at the UCSC's Center for Biomolecular Sciences and Engineering
who is currently employed at the NASA Ames Research Center as a member of their Green
Team. PRT is an imaginative but eminently feasible attempt to create a new form of personal
transportation based on computerized driverless vehicles that run along guideways and over
major highways. This proposed public transit system of highly efficient, light-weight vehicles
can be powered through existing grids or through solar energy. Baertsch’s presentation and the
ensuing discussion were attended by a broad interdisciplinary audience, including community
members, students, staff, and faculty from the natural sciences, humanities, and social sciences.

CENTRAL THEMES:

1) Scale: The energy crisis will demand major infra-structural transformations, and many experts
argue that it will be necessary to implement massive scale, well-coordinated structural shifts in a
short period of time. How might this be approached? What are the existing and emerging global
political and economic systems, from NGOs to global capital, with the potential to undertake
necessary structural transformations? Who is included and excluded from these systems as they
stand and how might they be reformed? Are there alternative organized publics that can
accomplish energy-system shifts on the scale that is necessary? What is the role of small non-
profits? What can and should local governments and organizations do in response to the energy
crisis?

2) Public and Private Domains: As we work collectively to address the social impacts of existing
energy systems and to mitigate the environmental effects of energy production, who will conduct
research, generate data, share information, and propose alternative systems? And who, if
anyone, will own, operate, and profit from these systems? Should private companies or public
representatives lead the way? Within the public and private spheres, who is most capable of
effecting the necessary changes that will lead to more clean and efficient energy production?
What are the social and ecological justice issues implicated in questions of private-versus-public
ownership?

3) Knowledge Production and Information Sharing: Participation in any conversation
concerning alternative energy systems will demand certain kinds of literacy and access to
accurate and relevant information. But what kinds of literacy are required? What counts as
relevant information? How does an individual or group acquire the authority to produce and
share information on energy production? Today, information on energy systems and climate change is highly politicized and contested from various angles. Which interest groups are at play in the domain of energy-related knowledge production and which audiences are they addressing? When it comes to researching and discussing energy problems and potential solutions, who is speaking, who is listening, and why?

4) Locating Justice: The energy-related challenges facing communities across the globe are tied to social justice questions in many ways. Historically and presently, energy production and distribution systems have been related to social stratification. Privileged communities and disadvantaged communities do not share the benefits of energy consumption equally, nor do they bear the risks of energy production (such as pollution) equally. Energy production and consumption infrastructures, from electricity grids and power plants to roads and public transit systems, have been erected in ways that reinforce existing lines of social stratification. Consider, for example, the class-related politics of a car-based transit system, and how this system has been implicated in suburbanization and the persistence of racialized and income-based residential segregation. Energy production and consumption systems are clearly related to broader social justice questions. Those justice questions, moreover, extend beyond the affected human communities to the larger ecologies in which they are embedded: Across species and ecologies, who has stakes in the energy systems we have built and those we are planning to erect? How can they be included in a justice agenda for energy production, distribution, and consumption?