Informed Energy Choices for New York: Cornell's Role
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Need: Enormous transitions in energy sources and uses are necessarily coming in the next half century. As in the past when transitions were made from wood to coal to oil, many transitions may be needed as we move beyond fossil fuels. Cornell University, as New York’s land grant university, is studying the risks and benefits of alternative sources, such as Marcellus shale gas, wind, solar, geothermal, biomass, etc., to eventually help decision makers avoid repeating past mistakes, e.g., corn-grain based ethanol.

Unconventional gas from shale resources is becoming nationally important as a major energy source. New York State with its extensive Marcellus gas shale deposits is faced with a range of contentious issues associated with its proposed development. Too often we observe highly-polarized positions and advocacy even though information is incomplete or has not been validated. This year the US DOE identified a key need to “Ensure the understanding of risks associated with oil and gas industry operations keeps pace with development in increasingly difficult frontiers, including deepwater offshore and unconventional gas onshore.”

Cornell is involved in research, teaching, and outreach aimed at understanding and mitigating risks associated with unconventional gas and facilitating public discussion about making informed energy choices for New York.

Suggested Cornell-wide approach: To select the best possible options regarding all the upcoming energy transitions requires a multidisciplinary systems approach as well as a range of comprehensive disciplinary research. Impacts, benefits and tradeoffs along with their uncertainties need to be objectively evaluated quantitatively for a range of metrics including economic, environmental, health, community vitality, and societal and job implications. Cornell is taking a role in supplying what is needed for effective decision-making by a wide spectrum of stakeholder groups.

Cornell has the capacity across its 11 colleges to cover the wide range of research, analysis, and public engagement needed. For many years, Cornell Cooperative Extension (CCE) has been responding to a variety of stakeholders who seek a scientific, economic, and environmental understanding of these issues.

Cornell is endeavoring to do the following:

- Lead and inform energy transition discussions in fulfilling its land grant mission in New York. Cornell should not be perceived as having a biased position for or against any particular energy source or usage but be perceived as being neutral, objective, unbiased, and well-informed.
- Conduct further research on:
  - Technology, risks, costs, and impacts of various energy sources and technologies.
  - The systems view of tradeoffs in impacts of various energy sources.
  - Effects of fiscal, regulatory, and market forces on energy decisions.
- Provide context and information to the public and decision makers on the systems and life cycle analyses of various possible decisions including the benefits, risks and uncertainties as well as about parts of the system in which technology, regulations, and enforcement can affect, reduce, and mitigate risks and undesirable impacts.
- Respond to decision maker and public questions and gaps in understanding by facilitating further education, communications, or seeking new areas of study where appropriate.
- Engage in open dialog with the public in a neutral, fair-broker role.
- Make data and research results publicly available and accessible.
- Cornell should prepare now to coordinate evaluation and responses to the revised draft sGEIS.
- Within Cornell look at all sides of energy transitions, by maintaining open dialog among faculty, staff and outside groups, while respecting academic freedom and individuals’ disparate conclusions.