Room for Improvement:  
A Modest Proposal for Increasing the Value of Energy Modeling for Policy Analysis*

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Climate Policy Without Cost?  
Can Technology Solve the Climate Problem?

Syracuse University’s Paul Greenberg House  
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*Adapted from Laitner et al (2003).

The Good News About Energy Efficiency  
Investments and Climate Change Policies

• It is not about ratcheting down our economy (Laitner et al. 2005);
• Rather, it is about:
  – using America’s technological leadership
  – investing in more productive technologies (including both existing and new technologies); and
  – developing new ways to make things, and new ways to get where we want to go, where we want to work, and where we want to play.
• Unfortunately, most economic models assume the former.
Three Suggestions for Increasing the Value of Energy Modeling for Policy Analysis

• There is a need for an in-depth assessment of policy models as they might impact the evaluation of different energy and/or climate policy scenarios.

• As economists, let’s begin with at least three assumptions and explore what they might imply for modelers:
  – That the economy operates interior to the production frontier;
  – That end-use efficiency and supply-side resources should be placed on equal footing and treated comparably; and finally,
  – Rather than view efficiency as a free lunch, let’s explore the possibility that such technologies may offer a greater return compared to supply side resources, or even compared to normal investment returns (but do so while acknowledging that market barriers and transaction and search costs may prevent an optimal investment in those greater returns).

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<th>Models and Scenarios</th>
<th>Market Reform and Technology Programs</th>
<th>Tax Shift</th>
<th>International Flexibility</th>
<th>Inclusion Other Gases</th>
<th>Air Quality Co-Benefits</th>
<th>Realization of Kyoto Target</th>
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*Adapted from Laitner et al (2003).
Conclusions

• Unlike the conclusions drawn from a number of modeling exercises, there are many cost-effective technologies and technology policies that can both strengthen economic activity as well as improve environmental quality.

• More work is needed – in effect, a return to real economic fundamentals and best modeling practices – to ensure economic modeling assessments that are appropriate to real world policy concerns.

A Selected Modeling and Technology Characterization Bibliography


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