

Overview

Estimates of the potential of renewable energy (RE) inform decisions regarding energy investments and energy policy. While some estimates exist, they are not detailed or comprehensive. Energy businesses, investors, and public policymakers are interested in using more renewable energy, but this would require more robust analysis of RE resource, technical, economic, and market potential. The National Renewable Energy Laboratory (NREL) is seeking partners for a Renewable Energy Potential Initiative, which will explore the long-term potential of RE to meet a substantial share of U.S. energy needs.

The initiative will be a multiyear, public-private collaborative analytic effort to advance the understanding of all aspects of RE potential through a systematic process (see inside for timeline). The initiative will address the tough questions about renewable energy:

- Is it cost competitive today? If so, which types, which markets, and which regions? If not, will it be and when?
- Will cost and performance improve significantly for specific technologies?
- How fast could RE industries expand if there were a rapidly increasing market demand?
- What policies might help or hinder market penetration?
- Can barriers to specific RE technologies be overcome?

Partner Contributions

NREL is seeking a range of partners, and will engage in individual negotiations based on mutual interests. The following general guidelines will frame these negotiations:

1. Partners may contribute funding, in kind, or both. The partner contributions will determine the terms of the agreement between NREL and each partner.
2. Partners may participate in the initiative and also may negotiate related proprietary tasks.
3. Partners joining on or before December 31, 2006, will influence the agenda and publications for Year 1.
4. Agenda and cost for Year 2 will be determined by September 30, 2007.

Interested?

If you are interested in learning more, would like more information on the evaluation criteria, or have additional inquiries, please contact:

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See the Energy Analysis Web site at http://www.nrel.gov/analysis/re_potential_initiative.html for updates on the process.

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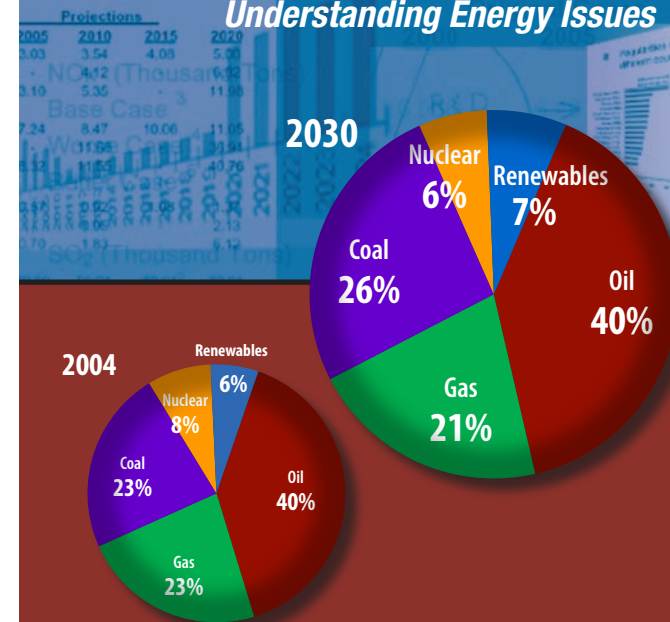
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Energy Analysis

Understanding Energy Issues



Examining the Potential of Renewable Energy

NREL seeking participants for a multiclient initiative

Proposed Timeline

	Year 1 Establish Capability and Demonstrate Value	Year 2-4 Expand Capability and Increase Value	Year 5 Targeted Accomplishments
RE Scenarios	<p>Develop a reference high-penetration RE scenario and define it in detail.</p> <p>Define additional highest-priority scenarios.</p>	<p>Improve existing scenarios.</p> <p>Define additional scenarios and examine state and local implications.</p>	<p>Three to five major scenarios that include substantial detail on technologies, regions, investments, manufacturing, and market behavior.</p> <p>Side cases and sensitivity analyses that augment the scenarios.</p> <p>Scenarios are used by public and private sectors to explore implications of policy and investment decisions, and major new insights influence their actions.</p>
RE Technical Potential Methodology and National Potential Estimate	<p>Develop the fundamental sets of assumptions and methods necessary to assess RE technical potential in a valid and consistent manner.</p>	<p>Perform state and regional analysis with appropriate partners and use these to revise and improve the national estimate.</p>	<p>RE Technical Potential Methodology is fully developed, widely used, and includes flexible assumptions, methods, and definitions.</p> <p>The National Potential Estimate is widely used and referenced.</p>
Data and Trends	<p>Track resource assessments, technology cost and performance, policies, financial investments, utility actions, manufacturing trends.</p> <p>Include energy efficiency, carbon sequestration, and nuclear technologies.</p>	<p>Add regional details on markets, costs, and policies.</p>	<p>Core data and trends information that is broad, deep, credible, and widely used and recognized.</p> <p>RE and other relevant energy technologies are well characterized at comparable levels of detail in the data and trends.</p> <p>Data gaps and limitations are well understood.</p>
Modeling	<p>Perform initial energy-sector modeling.</p>	<p>Add macroeconomic modeling of consumer surplus, employment, national product, electric-sector investment, electricity costs.</p> <p>Produce regional results.</p>	<p>Several different energy models have been used and improved, macroeconomic modeling has been applied, and modeling issues are identified.</p> <p>Regional results are being used by local planners.</p>
Reports and Outreach	<p>Publish new results, data, and trends in NREL reports and on a project Web site.</p>	<p>Provide partners and funders with additional detail and proprietary results as contracted.</p>	<p>Substantial publication record provides readily available and accessible resource for a variety of users.</p> <p>Partners and funders gain added value through additional detail, earlier releases, and proprietary results.</p>