A national laboratory of the U.S. Department of Energy
Office of Energy Efficiency & Renewable Energy

NREL National Renewable Energy Laboratory

Innovation for Our Energy Future

Join us the second Thursday of every month for a series of "brown bag" seminars, sponsored by the National Renewable Energy Laboratory and the U.S. Department of Energy. Each seminar is held at NREL's Washington office with a videoconference link to Golden, Colorado. Topics focus on new and innovative renewable energy and energy analysis strategies, models, and technologies.

Energy Analysis Seminar Series

A "brown bag" analytical seminar series

Avoided Emissions from Renewables – Timing is Everything

Stephen Connors, Director
Analysis Group for Regional Electricity Alternatives (AGREA)
Massachusetts Institute of Technology (MIT)

Stephen Connors

Thursday, June 9, 2005
Noon – 1 p.m. (in Washington, D.C.)
10 – 11 a.m. (videoconference in Golden, Colo.)

Calculating the avoided emissions from renewables such as wind and solar is tricky business—especially when the amount of renewables is small, relative to the regional grid. In 2003 and 2004, a team of Massachusetts Institute of Technology (MIT) researchers data-mined the Environmental Protection Agency's (EPA) continuous emissions monitor (CEM) database, examining what avoided emissions from solar-PV would have been at different times and places in the continental United States. Ongoing research is asking similar questions regarding wind power in the Northeast. The results have been counter-intuitive, and suggest additional integration opportunities such as electricity storage. Stephen Connors will give an overview of the "Load Shape Following" approach developed at MIT, with examples from the EPA and Massachusetts Renewable Energy Trust studies. His presentation will conclude with a discussion of the analytic challenges this poses for determining the emissions reduction benefits from continued deployment of renewable generation.

Stephen Connors is director of the Analysis Group for Regional Electricity Alternatives (AGREA) at MIT's Laboratory for Energy and the Environment (LFEE). In July 2001, Connors also became the coordinator of multidisciplinary research for the LFEE. In this role, he will build on his expertise in integrated assessment research to develop and promote LFEE research and outreach initiatives. Founded in 1988, AGREA's primary research focus is in strategic planning in energy and the environment, with an emphasis on regional energy infrastructures. Connors hold two degrees from the University of Massachusetts in Amherst (mechanical engineering and applied anthropology), as well as a masters from MIT in technology and policy.

Golden, Colo., information

1617 Cole Blvd., Golden, Colorado
Building 15, Conference Room 375

Please contact Lynne Fenn at lynne_fenn@nrel.gov or 303-384-7439

Washington, D.C., information

901 D Street SW (also the Aerospace Building, 370 L'Enfant Promenade), adjacent to the Forrestal Building

Please contact Wanda Addison at wanda_addison@nrel.gov or 202-646-5278

If you are interested in participating in the seminar via conference call, please contact Wanda Addison at **wanda_addison@nrel.gov** or **202-646-5278** for instructions.

EAO Energy Analysis Office
Understanding Energy Issues

For more information on NREL analysis, please visit the Web site at
http://www.nrel.gov/analysis