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Mr. Stephen Connors is director of the ANALYSIS GROUP FOR REGIONAL ENERGY ALTERNATIVES (AGREA) at M.I.T.'s LABORATORY FOR ENERGY AND THE ENVIRONMENT (LFEE). In July 2001, Mr. Connors became the coordinator of multidisciplinary research for the LFEE, a position which in the summer of 2005 became the directorship of the ALLIANCE FOR GLOBAL SUSTAINABILITY'S (AGS) "*Near-Term Pathways to a Sustainable Energy Future*" integrated research, education and outreach program. In this role Mr. Connors builds upon his expertise in integrated assessment research to develop and promote LFEE and AGS activities focused on how different technology and policy options affect long-term energy sector economic and environmental performance. In addition to these duties, Mr. Connors is also the MIT based co-director of the CMI Centre for Energy Security, along with Dr. William Nuttall at Cambridge University's Judge Business School.

Founded in 1988, AGREA's primary research focus is in *strategic planning* in energy and the environment, with an emphasis on regional energy infrastructures. AGREA lends its talents to projects across campus—and the world—that need to look at how the deployment of alternative technology portfolios will impact the cost and emissions of regional energy infrastructures, primarily electricity. Fundamental to AGREA's approach is the use of long-term planning tools within a *multi-attribute tradeoff analysis* framework. This approach automatically looks for cost-effective ways to attain multiple goals of cost-competitiveness and environmental quality, and also encourages public participation in the planning process via *stakeholder interaction* and input.

Over the years AGREA has employed its tradeoff analysis approach in several regions of the U.S., China, Europe and Latin America. From 1988 to 1996, the group looked at a broad range of options for New England power companies, utility and environmental regulators, consumers, and environmental advocates. Aggressive conservation, solar and wind energy, the deployment of electric vehicles, repowering of old power plants, and cap and trade regulations for NO<sub>x</sub> emissions were all topics explored on behalf of the project's multi-stakeholder audience.

The tools and techniques of this project have been used in numerous projects since. Most notably are the AGS projects SESAMS—SWISS CASE STUDY and the CHINA ENERGY TECHNOLOGY PROGRAM (CETP). AGREA's multi-scenario approach was also an integral component of the AGS MEXICO CITY AIR QUALITY PROGRAM, which looked at all emissions sources from the Mexican megacity, not just electric power. Current projects include TRANSES (Alternatives for the Transition to Sustainable Energy Services) looking at Scandinavia, and research in the United States looking at renewable power generation, power system dynamics, and avoided power plant emissions solar and windpower.<sup>1</sup> The new "*Near-Term Pathways to a Sustainable Energy Future*" program will consist of numerous regional studies, encompassing several key areas of energy supply and demand, such as sustainable mobility, future fuels and feedstocks, clean electricity supplies, and efficient and smart utilization.

Mr. Connors is the former head of the MIT ENERGY LABORATORY's *Electric Utility Program*, and holds two degrees from the UNIVERSITY OF MASSACHUSETTS in Amherst (Mechanical Engineering and Applied Anthropology), as well as a Masters from M.I.T. in Technology and Policy. Between his two degrees from UMass, Stephen was a Peace Corps volunteer in Benin, West Africa working on the design and testing of wood conserving cookstoves.

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<sup>1</sup> Reference web pages: [lfee.mit.edu](http://lfee.mit.edu), [web.mit.edu/agrea](http://web.mit.edu/agrea), [www.globalsustainability.org](http://www.globalsustainability.org),  
[web.mit.edu/newsoffice/2005/wind-1221.html](http://web.mit.edu/newsoffice/2005/wind-1221.html), [web.mit.edu/newsoffice/2004/renewables.html](http://web.mit.edu/newsoffice/2004/renewables.html)

## Select Papers...

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- "CMI Centre for Energy Security—Comments to the DTI Energy Review," S. Connors, W. Nuttall, D. Marks and H. Aldridge (April 2006)
- "Economic and Environmental Performance of Potential Northeast Offshore Wind Energy Resources," M. Berlinski and S. Connors, MIT LFEE 2006-02 RP (Jan. 2006)
- "Future Electricity Supplies: Redefining Efficiency from a Systems Perspective." by S. Connors, K. Martin, M. Adams and E. Kern, LFEE-WP-04-005 (June 2004)
- "Electric Sector Simulation: A Tradeoff Analysis of Shandong Province's Electric Service Options." By S. Connors, W. Schenler, C. Cheng, C.Hansen, and A. Gheorghe in Integrated Assessment of Sustainable Energy Systems In China: The China Energy Technology Program (CETP): A Framework for Decision Support in the Electric Sector of Shandong Province, Kluwer (2003)
- "Windpower – A Turn of the Century Review," by J. McGowan and S. Connors. Annual Review of Energy and the Environment, Vol. 25 (Nov. 2000)
- Informing decision makers and identifying niche opportunities for windpower: Use of multi-attribute trade off analysis to evaluate non-dispatchable resources, by S. R. Connors. Energy Policy. Vol. 24, No. 2. pp.165-176. (Feb. 1996)