

STEPHEN R. CONNORS

THE LABORATORY FOR ENERGY AND THE ENVIRONMENT
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EDUCATION

S.M., Masters in Technology and Policy. MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

February 1989. Concentrations in electric power systems planning, energy and the environment, and the use of technical information in complex decision-making processes. (GPA: 4.8/5.0)

B.S. Mechanical Engineering cum Laude. UNIVERSITY OF MASSACHUSETTS, AMHERST.

February 1986. Concentrations in energy systems, solar, wind, hydrogen, water, thermodynamics, and fluid mechanics. (GPA: 3.76/4.0).

B.A. Magna cum Laude. UNIVERSITY OF MASSACHUSETTS, AMHERST. Major: Anthropology.

May 1980. Concentrations in economic development, technology and change, applied and biological anthropology. (GPA 3.64/4.0)

EXPERIENCE

DIRECTOR, AGS ENERGY FLAGSHIP PROGRAM April 2005 to Present

M.I.T. Laboratory for Energy and the Environment (LFEE)

The ALLIANCE FOR GLOBAL SUSTAINABILITY (AGS) is a partnership among MIT, THE SWISS FEDERAL INSTITUTE OF TECHNOLOGY, the UNIVERSITY OF TOKYO, and CHALMERS UNIVERSITY OF TECHNOLOGY in Sweden. In 2005, the AGS launched its *Near-Term Pathways to a Sustainable Energy Future* "energy flagship" research, education and outreach program. This program builds upon past AGREA and AGS energy scenario research to identify and communicate cost-effective, and implementable portfolios of energy technology and policy options to local and regional decision makers. Mr. Connors is responsible for the coordination Energy Flagship activities across the four universities.

COORDINATOR, MULTIDISCIPLINARY RESEARCH July 2001 to Present

M.I.T. Laboratory for Energy and the Environment (LFEE)

With the merger of the M.I.T.'s Energy Laboratory and Center for Environmental Initiatives in July of 2001, the role of coordinating multidisciplinary research for the LFEE was added to Mr. Connors's responsibilities. This includes coordination among various faculty and research staff within M.I.T., coordination with sponsors and research colleagues at colleges and research labs across the globe.

DIRECTOR/RESEARCH ENGINEER February 1989 to Present

Analysis Group for Regional Energy Alternatives (AGREA), M.I.T. Energy Laboratory

Responsibilities include all technical, logistical and analytic aspects for a series of projects developing multi-attribute analytic methods for electric power systems planning. The projects focus upon providing quality information to a policy environment comprised of utility executives, regulators, and businesses, environmental and consumer groups. The planning process includes computer modeling of the operation of regional and utility-specific electric power systems, economic analysis of technological options, and the preparation and presentation of results to non-technical industry stakeholders and policymakers. (Projects listed below.)

DIRECTOR, ELECTRIC UTILITY PROGRAM July 1993 to October 1998
Electric Utility Program (EUP), M.I.T. Energy Laboratory (Co-Director, Sept. 1992-June 1993)
The Energy Laboratory's Electric Utility Program facilitated collaborative research on electric power related topics such as power systems analysis and planning, combustion, emissions reduction and characterization, building systems, and nuclear power. Each year over thirty participating organizations attend workshops, reviewing the progress of current research, and develop parallel, collaboratively funded projects to explore common areas of interest.

RESEARCH ASSISTANT/POWER SYSTEMS ANALYST January 1988 to January 1989
Analysis Group for Regional Electricity Alternatives (AGREA), M.I.T. Energy Laboratory
Responsibilities focused on the initial development and demonstration of electric utility planning methods, using multi-attribute analytic techniques, to service a consensus-building policy environment comprised of electric utility stakeholders who are normally adversaries in the regulatory arena. Success in these efforts led to an expansion of the research group, and projects described above.

ENERGY ANALYST January 1988 to August 1988
Meta Systems-RCG/Hagler, Bailley, Inc., Cambridge, MA
Responsibilities included technical and economic assessment of energy programs, provision of technical material and logistics for a technical assistance program with the Egyptian government.

TECHNICAL ASSISTANT August 1986 to January 1988
Chemical Metallurgy Lab, M.I.T. Department of Material Sciences and Engineering
Responsibilities included the design, construction and operation of laboratory apparatus, conception and implementation of a metallurgical project associated with the production of aluminum.

ENERGY ENGINEER Summer 1986
Applied Resources Group, Inc., Brookline, MA
Development and maintenance of energy use data for municipal shared-savings projects and institutional energy audits.

PRINCIPAL COMPUTER ANALYST/PROGRAMMER June 1983 to September 1983
Niger Range and Livestock Data Processing Project, University of Massachusetts, Amherst
Responsibilities included all data management, writing diagnostic programs utilizing Fortran and Basic on a mainframe computer.

COMPUTER ANALYST/PROGRAMMER February 1983 to May 1983
Niger Range and Livestock Project, Republic of Niger, Niamey, Niger
Administered by USAID, work involved the writing of data analysis and statistical programs for a team of social scientists conducting an extensive socio-economic survey of Niger's nomads. Work was done on DEC systems in Basic.

APPROPRIATE TECHNOLOGIST/PEACE CORPS VOLUNTEER September 1980 to November 1982
Wood Conserving Cookstove Project, Benin, West Africa
Administered by the Peace Corps, responsibilities included the design, construction and testing of improved cookstoves, the assessment of existing cooking technologies, the writing and illustrating of technical reports on the design and testing of improved stoves as well as conducting several training programs on cookstoves.

AGREA PROJECTS

OFFSHORE WIND COLLABORATIVE PILOT PROJECT (2004-2005)
Economic and Environmental Performance of Potential Northeast Offshore Wind Energy Resources
This pilot project for the Offshore Wind Collaborative, sponsored by the Massachusetts Renewable Energy Trust, GE Energy, and the U.S. Dept. of Energy uses windspeed data collected by NOAA to examine near versus far offshore wind regimes. Looking at the daily, seasonal, and multi-year magnitude and variability of offshore winds, the power generation and avoided emissions potential

of offshore wind farms can be compared with anticipated costs of siting wind farms further from shore, and in deeper water. This research is being done in collaboration with the *Renewable Energy Research Laboratory* at the UNIVERSITY OF MASSACHUSETTS, AMHERST.

TRANSES–NORTHERN EUROPE (2003 to present)

TRANSES – *Alternatives for the TRANSition to Sustainable Energy Services in Northern Europe*

A collaboration among M.I.T., The NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (NTNU) and CHALMERS UNIVERSITY OF TECHNOLOGY in Sweden, this project will explore a broad range of technology portfolios addressing the reduction in emissions from an already low emissions energy infrastructure. Unique to this project is the combination of detailed competitive energy market, time and space specific analyses of end-use, combined heat and power and renewable energy systems, and carbon capture and storage.

NATIONAL ASSESSMENT OF EMISSIONS REDUCTION OF PHOTOVOLTAIC POWER SYSTEMS (2002-2003)

Sponsored by the U.S. ENVIRONMENTAL PROTECTION AGENCY, this project looked at the hourly emissions from the U.S.'s fossil-fueled generation units, and by NERC sub-region determined the emissions avoided by electricity generated by PV systems, based upon hour by hour solar and generation system status information.

MEXICO CITY INTEGRATED ASSESSMENT CASE STUDY (1999-2004)

This effort, supported by the AGS, the FORD-MIT ALLIANCE and the GOVERNMENT OF MEXICO, brought together researchers from M.I.T., the HARVARD SCHOOL OF PUBLIC HEALTH and numerous Mexican universities and research institutions to look at the integrated energy, transportation and lifestyle effects on pollution, health and productivity. At its core it employed AGREA's multi-attribute approach to integrate these diverse topics with an aim of informing regional stakeholders and governmental policy-makers.

CETP SHANDONG CASE STUDY (1998-2003)

Supported by ABB via the AGS, the CHINA ENERGY TECHNOLOGY PROGRAM Shandong Case Study applied AGREA's scenario-based multi-attribute tradeoff analysis approach to Shandong province in Eastern China. This project also includes the LCA and environmental impact assessment skills of the AGS's Swiss participants.

SESAMS SWISS CASE STUDY (1997-2000)

SESAMS – *Strategic Electric Sector Assessment Methodology under Sustainability Conditions*. This project supported by the ALLIANCE FOR GLOBAL SUSTAINABILITY (AGS) brought together the M.I.T. AGREA research team with researchers at the SWISS FEDERAL INSTITUTES OF TECHNOLOGY, to apply the multi-attribute tradeoff analysis approach to Switzerland, incorporating the life-cycle assessment (LCA) methods developed at the Paul Scherrer Institut and ETH-Zürich.

COMPETITIVE POWER SYSTEMS RESEARCH GROUP (1996-2002)

This series of projects examined the technical performance of alternative market structures for competitive electric industries. Issues explored by the research team included congestion management, market dynamics and the technical, topological, regulatory and economic aspect of competition on the distribution level. Mr. Connors's responsibilities focused on coordination and outreach of highly technical information to less technical audiences. The group was led by Prof. Marija Ilic.

MENDOZA ARGENTINA WATER RESOURCE PLANNING (1996-1997)

Performed in conjunction with the M.I.T. TECHNOLOGY AND DEVELOPMENT PROGRAM, this project used the multi-attribute tradeoff analysis approach to look at the combined energy, agricultural, industrial and residential uses of water from the two principal rivers supplying the province of Mendoza in Western Argentina. It was supported by the Government of Mendoza, Argentina.

TENNESSEE VALLEY AUTHORITY ENERGY VISION 2020 REVIEW GROUP (1995)

In this project, Mr. Connors assisted in TVA's application of the multi-attribute tradeoff analysis approach, interpreting scenario results for the stakeholder advisory group. Supported by TVA.

ENEL BIOMASS PROJECT (1992-1994)

In close cooperation with the Italian national electric utility ENEL, this two year project examined the cost, emissions and labor impacts of scenarios incorporating different types and levels of bio-

fueled generation. Year One looked at Italian strategies. Year Two looked at strategies for Western Europe. Supported by the European Commission and ENEL.

NEW ENGLAND AREA PROJECT (1988-1996)

Supported by New England electric utilities, the National Renewable Energy Laboratory, and the Raytheon Co., this project evaluated a broad array of scenarios including new generation technologies (including wind and photovoltaics), various types and levels of demand-side management, fuel switching, early retirement and repowering of existing generation (nuclear and fossil), NO_x emissions retrofits and seasonal and geographic NO_x cap and trade environmental regulations, carbon taxes, and the emissions reduction effectiveness of electric vehicle fleets. The project's stakeholder advisory group included utility representatives, utility and environmental regulators and business and environmental groups.

COMMONWEALTH ELECTRIC PROJECT (1988-1992)

This project applied AGREA's multi-attribute tradeoff analysis approach to a single utility, interacting with a series of customer advisory groups, examining a broad array of technology options. In addition to evaluating environmental externality regulations, this project developed lay-oriented performance attributes. Supported by Commonwealth Electric.

JOURNAL ARTICLES, BOOK CHAPTERS AND CONFERENCE PROCEEDINGS

"Future Electricity Supplies: Redefining Efficiency from a Systems Perspective." by S. Connors, K. Martin, M. Adams and E. Kern for MIT Engineering Systems Symposium, accessible via <http://esd.mit.edu/symposium/papers>. Cambridge MA, 29-32 March 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, pp. 201-274. Kluwer, 2003.

"Windpower – A Turn of the Century Review," by J. McGowan and S. Connors. Annual Review of Energy and the Environment, Vol. 25, pp. 147-197, November 2000.

"Ensuring future energy alternatives: the role of resource planning in forming long-range energy and environmental policies," by S. Connors. International Journal of Global Energy Issues, Vol. 12, pp. 120-130. 1999

"Climate Change and Competition - On a Collision Course? Technology Development and Deployment in a Competitive Electric Industry," by S. Connors and W.W. Schenler. Proceedings of the 60th American Power Conference, Vol. I, pp. 17-22, April 14-16 1998, Illinois Institute of Technology. Chicago, IL.

"Competitive Electric Services and Efficiency", by S. Connors . In Restructuring, Power Systems Engineering and Economics, ed. by M.D. Ilic, F. Galiana, and L. Fink. pp. 385-401. Kluwer Academic Publishers, 1998.

"Reducing Electric Sector CO₂ Emissions Under Competition: Facilitating Technology Development and Turnover on Both Sides of the Meter," by S. Connors. Proceedings of The International Conference on Climate Change. Baltimore, MD. June 12-13, 1997.

"Windpower in New England: Modeling and Analysis of Non-Dispatchable Renewable Energy Technologies," by J.B. Cardell, S. Connors. IEEE Transactions on Power Systems. PE-888-PWRS-2-06-1997.

"No Good Deed Goes Unpunished: The End of IRP and the Role of Market-Based Environmental Regulation in a Restructured Electric Industry." by S. Connors, E. T. O'Neill. Proceedings of the United States Association for Energy Economics 17th Annual North American Conference. October 27-30, 1996. Boston, MA. pp.125-134.

"Regional Energy Development: Implications for Developing and Re-Industrializing Economies.," by S. Connors. Proceedings of the Workshop Soziale Folgen rationeller Energieanwendung und Nutzung regenerativer Energien (Social Consequences of Rational Energy Use and the Employment of Regenerative/Renewable Energy), September 14, 1996. Leipzig, Germany.

- “Informing decision makers and identifying niche opportunities for windpower: Use of multiattribute trade off analysis to evaluate non-dispatchable resources,” by S. Connors. Energy Policy. Vol. 24, No. 2. pp.165-176. (Feb. 1996)
- “The Electric Car Unplugged,” by R. De Neufville, S. Connors, F. Field III, D. Marks, D. Sadoway, R. Tabors. Technology Review. Vol. 99. No. 1. (Jan. 1996)
- “New England Case Study,” by S. Connors. In Regulating Regional Power Systems: Case Studies and Perspectives on Emerging Competition, ed. by C.J. Andrews. pp. 219-232. IEEE Press, 1995.
- “Competition, Coordination and Compliance: The Role of Integrated Resource Planning in a Competitive Industry,” by S. Connors. Proceedings of the NARUC-DOE 5th National Integrated Resource Planning Conference, May 15-18, 1994, Kalispell, MT, pp. 45-57.
- “Integrating Renewables into Resource Planning,” by S. Connors, J.B. Cardell. Proceedings of RENEW’94, April 11-13, 1994, Stamford, CT, pp. 64-68.
- “Integrating Renewables into Integrated Resource Planning: Emissions Reduction Potential from Wind and Solar Generated Electricity in New England,” by S. Connors, J.B. Cardell. Proceedings of the National Regulatory Conference on Renewable Energy, October 3-6, 1993 Savannah, GA, pp. 293-314.
- “Targeting DSM for Emissions Reductions,” by S. Connors, J.S. Goldman. Proceedings of the 1993 Demand-Side Management and the Global Environment Conference, June 24-25, 1993 Arlington, VA.
- “Externality Adders and Cost-Effective Emissions Reductions: Using Tradeoff Analysis to Promote Environmental Improvement and Risk Mitigation,” by S. Connors. Proceedings of the American Power Conference, Vol. 1, pp. 697-702. April 13-15, 1993, Chicago, IL.
- “Side-Stepping the Adder: Planning for Least-Social-Cost Electric Service,” Proceedings of the NARUC-DOE 4th National Integrated Resource Planning Conference, Burlington, VT, Sept. 13-16, 1992.
- “Existing Capacity – The Key to Reducing Emissions,” by C.J. Andrews, S. Connors. Energy Systems and Policy, Vol.15, pp. 211-235, 1992 (also MIT Report No.: MIT-EL 91-001WP)
- “The Evolution of Utility Sponsored DSM Programs in New England: Opportunities and Risks for Long-Term Cost and Emissions Reductions,” by S. Connors, G.G. Parker. Proceedings of the Second Annual Environmental Technology Exposition and Conference, Washington, DC, April 7-9, 1992.
- “Reducing Air Emissions without Going Broke: How to Halve Sulfur Dioxide and Nitrogen Oxides Emissions from New England’s Electric Power Sector,” by S. Connors. Trace Substances in Environmental Health–XXV, Supplement to Volume 14 (1992) of Environmental Geochemistry and Health, Columbia, MO, May 20-23, 1991.
- “The Role of Demand-Side Management in Strategic Emissions Reduction: Integrating End-Use Efficiency Improvements in the Electric Power Sector,” by S. Connors, C.J. Andrews. Proceedings of the DSM and the Global Environment Conference, Arlington, VA, April 22-23, 1991.
- “System-Wide Evaluation of Efficiency Improvements: Reducing Local, Regional and Global Environmental Impacts,” by S. Connors, C.J. Andrews. Energy and the Environment in the 21st Century, eds. J.W. Tester, D.O. Wood and N.A. Ferrari, MIT Press, Cambridge MA, 1991.
- “Integrated Energy Systems for Accelerated Development,” by S. Connors. Proceedings of the World Energy Council Regional Energy Forum for East and Southern African Countries, Harare, Zimbabwe, November 12-14, 1990.
- “Assessing the Tradeoffs Between Environment, Cost and Reliability: Developing a Coordinated Strategy to Ensure New England’s Electricity Supply,” by C.J. Andrews, S. Connors, D. Greenberg, W. Schenler, R. Tabors, D. White and K. Wolfsburg. Proceedings of the New England Environmental Exposition, Boston, MA, April 10-12, 1990.
- “Wind/Diesel Village-Scale Electric Power Systems: The Performance and Economic Analysis of a Simulated Village System,” by S. Connors, J.G McGowan, J.F. Manwell. Solar and Wind Technology, Vol.7, pp.423-439, 1990.

“A Framework for Integrated Resource Planning: The Role of Natural Gas Fired Generation in New England,” by R.D. Tabors, S. Connors, C.G. Bespolka, D.C. White, C.J. Andrews. IEEE Transactions on Power Systems, Vol.4, No.3 , p.1010, 1989.

“Wind/Diesel Energy Systems: Review of Design Options and Recent Developments,” J.G McGowan, J.F. Manwell, S. Connors. Solar Energy, Vol.41, pg. 561, 1988.

CONFERENCE PAPERS/PRESENTATIONS

“The Devil is in the Details - or Is It? Designing Clean Energy Technologies and Pathways.” 10th Annual Green Chemistry and Engineering Conference, 28 June 2006, Washington DC

“Where and When Is That Resource? Insights and Questions from Recent New England Offshore Wind Resource Analysis,” NESEA Building Energy 2006, 9 March 2006, Boston

“Sustainable Mobility: Near and Long-Term Opportunities for Clean Transportation,” EnviroExpo 2004, Boston

“Where and When Matters: Intermittency, Renewables and Resource Integration,” by S. Connors. MIT Center for Energy and Environmental Policy Research Workshop, 5 December 2003, Cambridge, MA.

“Emerging Energy Niche Markets,” by S. Connors. MIT ILP Energy Symposium – Meeting Future Energy Challenges, 2 December 2003, Cambridge, MA.

“Every Market’s a Niche Market – and some niches are bigger than others.” by S. Connors. Young Presidents Organization Presidents’ Seminar, Future of Power and Energy, 20 November 2003. Cambridge, MA.

“Timing is Everything: Putting Distributed Resources in Perspective,” by S. Connors. NESEA 28th Annual Conference, 14 March 2003. Boston, MA.

“Distributed Energy & the ‘Trickle Charge Society’, ” by S. Connors. House-n/net-0 Workshop, 9 August 2001. Cambridge, MA.

Taking the Long View: Using Partnerships Among Government, Industry, Academia and the Public to Promote Sustainable Development, by S. Connors. Energy and Global Development: A Challenge for the 21st Century, Ronda, Spain, 24 July 2001.

“Evolving Niche Markets Opportunities and Hurdles for Distributed Generation,” by S. Connors and M. Ilic. A Forum on Enabling Distributed Generation, 18May 2001.

“Strategic Electric Sector Planning Using Tradeoff Analysis,” by S. Connors, W. Schenler and A. Gheorghe. ETSAP – Energy Technology Systems Analysis Program Annual Workshop. Baden, Switzerland, 16 October 2000.

“Renewables and Climate Change,” by S. Connors. Third Annual Program on Climate Change and Development, Harvard Institute for International Development, 19 June 2000. Cambridge, MA.

“Electricity Competition: The Rise of Retail Competition,” by S. Connors. MIT Industrial Liaison Program 2000 Research Directors Conference, 9 May 2000, Cambridge, MA.

“Perspectives on Energy Competition,” by S. Connors. The Energy Consortium (TEC) Annual Meeting. 26 April 2000. Lowell, MA.

“Identification of Cost-Effective Emissions Reduction Strategies Using Multi-Attribute Tradeoff Analysis: Several Case Studies From Around the World,” by S. Connors. IIE 1999 IRP Course: “Least Cost Planning for Electrical Utilities. 10 December 1999. Cambridge, MA.

“Tradeoff Analysis: Theory and Practice – Multi-Attribute Tradeoff Analysis as a Framework for Decision-Making in Complex ‘Decision Environments,’” by S. Connors. Technical Leadership Training Program: Environmental Management Workshop for Municipalities, 12 November 1999. Cambridge, MA.

“Electric Industry Restructuring in the United States: The New R&D Environment(s),” by S. Connors. Ontario Electricity Technology Forum: The New Reality. 21 October 1999. Toronto, Ontario, Canada.

“‘Missing Links’ in the Transition to a Competitive Electric Industry,” by S. Connors. USAEE 20th North American Conference. 30 August 1999. Orlando, FL.

- "The Basics of Electricity," by S. Connors. USAEE 20th North American Conference. 29 August 1999. Orlando, FL.
- "The Potential of Distributed Generation: Reliability, Technologies, Relationships & Challenges," by S. Connors. CBI's 2nd Annual Distributed Generation Conference, 29 March 1999. Dallas, TX.
- "Evolving Niche Markets for Sustainable Energy Services," by S. Connors. House-n Workshop, 25 March 1999. Cambridge, MA.
- "Criteria, Attributes & Indicators: Balancing Completeness and Comprehension in the Search for Sustainability," by S. Connors. AGS Brown Bag Lunch Series, 3 March 1999. Cambridge, MA.
- "What Happens When Competition Meets Climate Change?" by S. Connors, IAEE New England Chapter Lunch Talk, 23 February 1999. Cambridge, MA.
- "Bringing It All Together: Multi-Attribute Tradeoff Analysis as a Framework for Integrated Assessment," by S. Connors. Workshop on Urban, Rural and Global Air Pollution: Mexico City Case Study. 16 February 1999. Mexico City, Mexico.
- "Barriers to the Use of CHP: M.I.T. Perspectives," by S. Connors, CHP Summit: A National Dialogue on Combined Heat and Power, 1 December 1998. Arlington VA.
- "Tales from the Supply-Side: Report on the 17th World Energy Congress," by S. Connors. AGS Brown Bag Lunch Series, 14 October 1998. Cambridge, MA.
- "Environmental and Economic Issues in International Renewables," by S. Connors. The Towards Tomorrow Festival/RENEW'98, 23 July 1998, Westfield, MA.
- "The Key Role of the Building Sector in Reducing Energy Needs," by S. Connors. Sustainable Building Design for the 21st Century, 2 June 1998. Cambridge, MA.
- "Longer-Term Issues in Electric/Energy Industry Restructuring: Development of a More Robust Energy Services Sector," by S. Connors. The International District Energy Association's 89th Annual Conference and Trade Show, 15 June 1998. San Antonio, TX.
- "Competitive Electric Services and 'Efficiency': Environmental Aspects of Competitive Industry Design," by S. Connors. ISO Operations, Planning and Design Short Course, 11 June 1998. Cambridge, MA.
- "Sneaking up on Sustainability: Identifying Sustainable Energy Strategies via Stakeholder Interaction: Multi-Attribute Tradeoff Analysis and the AGS SESAMS Project," by S. Connors. AGS Brown Bag Lunch Series, 11 March 1998. Cambridge, MA.
- "Market Forces and Climate Change: Tradeoffs and Opportunities," by S. Connors. Workshop: Energy Choices for a Greenhouse Gas Constrained World. 2-4 November 1997. Dedham, MA.
- "Restructuring and the Technology Development Framework," by S. Connors. Competitive Intelligence Dynamics in Utilities and Telecommunication. 18 September 1997. San Antonio, TX.
- "Ensuring Future Energy Alternatives: Technological and Institutional Changes to Developing a Sustainable Energy Infrastructure under Competition." by S. Connors. IEEE Power Engineering Society Summer Meeting. 22 July 1997. Berlin, Germany.
- "Integrating Distributed Generation into the Energy Mix: Enabling Factors Under Competition" by S. Connors. IEEE Forum on Advanced Technology for Distributed Power Generation. May 20, 1997. Portland, ME.
- "Challenges to Regional Electric Sector Development: Facilitating 'Broad-Scale' Technological Development and Deployment under Competition," by S. Connors. International Conference: Macro Engineering in the 21st Century. October 24-27, 1996. Cambridge, MA.
- "The Big Picture: Every Market's a Niche Market," by S. Connors. Energy Daily Conference – Distributed Electric Generation: Improving the Bottom Line for Utilities and Customers. Sept. 30-Oct. 1, 1996. Arlington, VA.
- "The M.I.T. Cogen Experience," by S. Connors. Energy Daily Conference – Distributed Electric Generation: Improving the Bottom Line for Utilities and Customers. Sept. 30-Oct. 1, 1996. Arlington, VA.

- “Emissions Reduction and Electric Competition: The Future Role of Renewable Energy.” by S. Connors. Proactive Environmental Strategies for Industry: Anticipating the Future in Environmental and Sustainability Driven Problems. May 8-9, 1996. Cambridge, MA.
- “Electric Vehicles Fleets and New England Emissions,” by S. Connors. 18th Annual New England Environmental Conference, March 16-17, 1996. Tufts University, Medford, MA.
- “Renewable Energy Markets for Electricity, Environmental Performance and Employment,” by S. Connors. RENEW’96. March 4-6, 1996. Boston, MA.
- “The Potential Role of Renewables in Achieving Emissions Reductions in New England,” by S. Connors. EPRI/NREL Utility Renewable Energy Planning and Modeling Workshop. April 19-20, 1995. Newton, MA.
- “Multi-Attribute Trade-Off Analysis: Using IRP Tools as an Environmental Risk-Assessment Technique,” by S. Connors. Edison Electric Institute/Hawaiian Electric Co. Externality Workshop, 29 November 1994. Honolulu, HI.
- “Cost-Effective Emissions Reduction Strategies and Resource Choice,” by S. Connors. TIMS/ORSA Joint National Meeting, April 24-27, 1994. Boston, MA.
- “Renewable Energy Technologies: Energy Supply Technologies for the 21st Century,” by S. Connors. The World Economic Forum Industry Summit, 11 September 1993, Cambridge, MA.
- “Balancing Multiple Objectives: Overview of Social Costing Practice – Multiple Attributes Analysis,” by S. Connors. Social costing: towards a new decision-making framework, 21 June 1993. Whistler, BC.
- “New England’s Regulatory Response to Global Climate Change: Environmental Externalities, Resource Planning and Implications for the Nuclear Industry,” by S. Connors. Joint Symposium on Strategic Management of Nuclear Power, 12 March 1992, Washington, DC.
- “Opportunities for Cost-Effective Emissions Reductions in New England,” by S. Connors. Forum on Regional Coordination and Environmental Externalities, 10 March 1992, Nashua, NH.
- “Cost-Effective Emissions Reductions: Combining New England’s Options into a Coordinated Strategy.” by C.J. Andrews, S. Connors. 12th Annual North American Conference of the International Association for Energy Economics, 2 October 1990, Ottawa, Ontario.
- “The Role of Natural Gas in New England’s Electricity Future: The Environmental Impacts of a Vulnerable Fuel Supply,” by S. Connors. Gas Daily Evolving Northeast Gas Markets, Cambridge, MA. June 14-15, 1990.
- “Trade-Off Analysis for Electric Power Planning in New England: A Methodology for Dealing with Uncertain Futures,” by S. Connors, R.D. Tabors and D.C. White. CORS/TIMS/ORSA Joint National Meeting, 10 May 1989, Vancouver, BC.

REPORTS AND CONTRACTED PUBLICATIONS

- Economic and Environmental Performance of Potential Northeast Offshore Wind Energy Resources, by M. Berlinski and S. Connors, MIT LFEE 2006-02 RP. Jan. 2006.
- National Assessment of Emissions Reduction of Photovoltaic (PV) Power Systems, by S. Connors, E. Kern, M. Adams, K. Martin and B. Asiamah-Adjei. U.S. Environmental Protection Agency. January 2004 .
- “Integration von Energie-dienstleistungen: Visionen für den liberalisierten Strommarkt,” by S. Connors. Seimens Standpunkt, No. 2/99 - July 1999.
- The Role of Nuclear Energy in Southeast Asia, by T. Kobayashi, S.R. Connors and M.S. Kazimi. MIT Nuclear Fuel Cycle Economics and Environmental Management Program Report No. MIT-NFC-TR-017, June 1999.
- Issues in Energy and Sustainable Development: An AGS Mapping Project White Paper, by S. Connors. MIT Energy Lab Report No. EL 98-004. June 1998.

- Strategic Electric Sector Assessment Methodology under Sustainability Conditions: A Swiss Case Study, by W. Schenler, A. Gheorghe, S. Connors, P-A. Haldi, S. Hirschberg. Swiss Federal Institutes of Technology, April 1998
- Review of Renewable Energy Technologies for Massachusetts, by J.G. McGowan and S. Connors. University of Massachusetts at Amherst Renewable Energy Research Laboratory. Report to the Massachusetts Division of Energy Resources. February 1998.
- “Sustainability and Energy: A Background Paper,” by S. Connors. Fourth International Programme on the Management of Sustainability, sponsored by The Sustainability Challenge Foundation. June 1996.
- Report to the TVA Energy Vision 2020 Review Group – Evaluation of the Tennessee Valley Authority’s Integration Tradeoff Analysis, by S. Connors. June 1995.
- First Approach to Identifying Wind Generated Electricity Penetration Limits in New England: Simplified Steady-State Analysis and Economic Evaluation. by J. Lacalle-Melero, S. Connors, E. Festa, N. La White, C. Acosta-Colon. (NREL Final Report – January 1995)
- Project Report – Phase II: Analysis of Biomass Penetration in the European Electricity Market, by W.W. Schenler, P. Moncada P.C., S. Connors, R.D. Tabors. MIT Report No.: MIT-EL 94-002, July 1994.
- Project Report – Phase I: Analysis of Biomass Penetration in the Italian Electricity Market, by W.W. Schenler, P. Moncada P.C., S. Connors, R.D. Tabors. MIT Report No.: MIT-EL 93-005, November 1993.
- Final Report for Phase One – The Commonwealth Electric Open Planning Project, with C.J. Andrews, D.L. Greenberg, W.W. Schenler, R.D. Tabors, D.C. White. MIT, Cambridge, MA, 1991.
- “Strategies for Reducing the Environmental Impacts of Electric Service,” by S. Connors. Report on the Region’s Energy Future, The New England Council, Boston, MA, 1990.
- Stove Design Handbook, by S. Connors. Peace Corps Benin, Cotonou, Benin, 1982.
- Comparative Wood Consumption in “Improved” Cookstoves by S. Connors. Peace Corps Benin, Cotonou, Benin, 1982.
- Sota Stove Construction, by S. Connors. Peace Corps Benin, Cotonou, Benin, 1982.

WORKING PAPERS

(Working Papers are articles and other documents which have been widely distributed to individuals affiliated with M.I.T. Energy Laboratory activities. These items are available on request.)

- Societal Issues in Transitioning Towards Sustainable Systems: 1998 World Energy Congress Issues Paper Session Rapporteurs Paper, by S. Connors. MIT Energy Lab Working Paper EL 98-001 WP. June 1998.
- Scenario-Based Multi-Attribute Tradeoff Analysis for Use in Policy Dialogue Energy Mix Planning: New England U.S.A. Case Studies. by S. Connors. SESAMS Working Paper No. 1, ETH-Zürich. March 1997. (a compilation of three recent papers.)
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REFERENCES

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(Last updated, July 2006)