

CHRISTOPHER A. JAMES

Senior Associate
Synapse Energy Economics, Inc.
22 Pearl Street, Cambridge, MA 02139
(617) 661-3248 ext 247 • fax: (617)-661-0599
cjames@synapse-energy.com
www.synapse-energy.com

PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Cambridge, MA 2007-present
Conducting research, writing reports, and presenting expert testimony pertaining to consumer, environmental, and public policy implications of electricity industry regulation. Primary focus of work includes electricity industry regulation and restructuring, electric power system planning, energy efficiency programs and policies, renewable resources and related policies, power plant performance and economics, air quality, and many aspects of consumer and environmental protection.

Connecticut Department of Environmental Protection, Hartford, CT 1999-2007
2006-2007, Manager, Climate Change and Energy Programs; 1999- 2006, Director; 1995-1999, Assistant Director.

United States Environmental Protection Agency, Seattle, WA 1988-1995
1988-1991, Environmental Engineer; 1991- 1995, Senior Environmental Engineer.

Rhode Island Department of Environmental Management, Providence, RI 1984-1988
1984-1987, Principal Engineer; 1984-1987, Senior Engineer.

OTHER EXPERIENCE

Staff Engineer at environmental consulting firms in the Boston, MA area 1978-1982, focus on modeling of air pollution control devices and combustion of alternative fuels. Self-employed in the adventure travel industry 1982-1983. Managed retail outdoor products store 1983-1984.

EDUCATION

Worcester Polytechnic Institute, B.S. Mechanical Engineering
Major Qualifying Project: Design of Low-Cost Solar Hot Water Heater
Brown University, A.M. Environmental Studies
Thesis: Air Pollution Emissions from Medical Waste Incineration
University of Hartford, Environmental Law class
NESCAUM [instructors from Willamette University and Harvard University, Negotiation and Mediation Training classes

Rocky Mountain Institute, Senior Fellow

Focus on carbon trading systems, integrated systems thinking approaches to problem solving, May-September 2006

AREAS OF EXPERTISE

Climate Change/Global Warming

Lead state climate change staff person. Co-led development of Connecticut's Climate Change Action Plan, a stakeholder process with steering from CT Governor's office, and six cabinet agencies. The plan identifies and prioritizes implementation strategies to stabilize the climate with economy-wide recommendations to reduce greenhouse gas emissions. Worked with legislators, their staff and constituent groups to enact a climate change statute, including mandatory reporting and registry, GHG emissions standards for vehicles and a clean car incentives program. Collaborated with federal agencies to develop new technical models to improve the analysis of co-benefits from measures that reduce greenhouse gas emissions. Represent CT DEP on NEG/ECP climate change steering committee. CT environmental representative to regional greenhouse gas initiative (RGGI), a nine state effort to develop a cap and trade system for the utility sector. Represented the US States at UN COP-9 and 11.

Energy

Comprehensive understanding of all facets of energy supply, distribution, generation, transmission and demand side measures. Represent DEP on Energy Conservation Management Board, a \$90 million/ year ratepayer fund that invests in energy efficiency and load management. Encourage principles of integrated systems thinking, including whole building design concepts, retrocommissioning and long-term planning. Chaired workgroups that developed emissions performance standards and output-based standards for distributed generation. Participant in ISO-NE scenario planning process and environmental advisory group.

Policy Analysis

Ability to synthesize and analyze interdisciplinary and cross-sector information, then distill this into recommended actions for decision makers. Skilled at assembling information from complex and disparate sources into cohesive form for presentation to Commissioner, legislators, and other diverse audiences. Keen sensitivity to political dynamics, including supporters and opponents of a particular strategy(ies), and their overt and covert positions. Recognize that many issues have a shelf-life and rapid response is required in order to achieve a desired effect or objective.

Personal Interaction

Strong oral and written communication skills to engage and interact with diverse groups of stakeholders and responsible parties. Have developed strong, robust and trusting relationships with Federal, regional, state and local governments, businesses and NGOs, and with academia. Twenty years experience using group processes to develop model rules, discuss, advance and implement policies and regulations, and to advocate for particular positions. Also comfortable being active listener in order to understand other points of view and to determine potential policy levers that can be revealed through

collaborative engagement. Frequent testimony in front of cognizant legislative committees and boards. Frequent background and quoted source for print and radio media on climate change, energy and air quality issues.

Personnel Management

Managed and directed staff of more than thirty professional, technical and administrative personnel, responsible for climate change planning and program implementation, air quality attainment planning, modeling, monitoring, toxics, mobile sources [including diesel retrofits], utility restructuring, NOx budget and emissions inventory programs. Also conducted interviews and recommended candidates for hiring. Stress communications to promote consistency, team building, customer service and to encourage employee career development. Used strong communications and inter-personal skills to improve employee morale and workplace desirability. Addressed and promoted customer service, program efficiency and staff career development through team approach to title V permits. Used bottom up process to effect structural change to implement employee ideas and to evolve into a more responsive organization.

Program Development

Convinced Department to establish separate unit to focus on implementation of the state's climate plan, to provide a focal point both within the DEP and throughout state government, and to assess energy and electric policies and programs being developed in other state agencies, especially the Department of Public Utility Control.

Coordinated and directed development of ozone and fine particulate attainment plans, including transportation conformity and regulations needed to implement such plans. Directed and manage regulatory development, including significant State effort to revamp its NSR program.

Developed, implemented and directed State Title V and New Source Review permit programs. Conducted workload and workflow analyses to encourage improvements in efficiency and effectiveness in permit process and engineer productivity. Improved customer service through extensive outreach efforts on Title V, General Permit and regulatory amendments. Directed analyses to evaluate and recommend amendments/revisions to Connecticut air pollution regulations. Directed and developed first general permits for New Source Review sources, saving significant administrative and financial resources while retaining and enhancing overall environmental commitments.

Permitting

Led and managed professional staff responsible for review and processing of Connecticut Title V, New Source Review and General Permits. Led effort to streamline permitting process through general permits, improvements in procedures and statutory and regulatory changes.

At EPA, responsible for statewide air new source review program including non-attainment (part D) and minor source permitting and Federal oversight of these programs. Assisted States to develop enforceable, but flexible conditions in Title V permits.

Performed applicability determinations, emissions inventory reviews and evaluate compliance with state and Federal regulations. Performed and reviewed dispersion modeling in support of state air pollution permit program.

Regulatory Analysis

Performed regulatory compliance audits of industrial facilities to determine applicability of Federal, State and local air pollution regulations. Regulatory review included NSPS, PSD, NESHAP, and State and local regulations and permits. Evaluations included thorough reviews and in-depth process evaluations for a broad spectrum of industrial facilities including pulp mills, aerospace plants, paper coaters, wood products plants, combustion and incineration units, and various other manufacturing facilities. Supervised and trained compliance auditors in statewide programs, and for the British Columbia Ministry of Environment. Negotiated multiple compliance cases, three of which exceeded penalty collections of \$1 million, including largest civil penalty ever collected at that time under Clean Air Act [\$11 million, plus over \$70 million in injunctive relief]. Also negotiated multi-media enforcement case, against pulp mill in Alaska, which resulted in largest penalty ever collected at that time by EPA Region 10 [\$5 million].

CT technical and policy lead in New Source Review lawsuits against midwestern and southeastern power plants, including VEPCO (settled in 2003, \$1.1 million SEP for CT), Ohio Edison (settled 2005, \$1.1 million SEP for CT) , AEP, and Cinergy. Connecticut technical lead in climate change nuisance action lodged against the five largest GHG emitting power companies.

Incineration

Master's thesis research source testing developed emission factors for hydrogen chloride, multiple metals, including mercury, and particulate matter from medical waste incinerators. Thesis also developed solid waste management options and recommendations for BACT. Provided technical advice during Prince William Sound [Exxon Valdez] oil spill cleanup 1989 to consultants and regulators. Active participant in EPA effort to develop MACT standard for medical waste incinerators.

Other areas of knowledge and expertise in air quality include: continuous emissions monitors, control technology evaluations, stationary source emissions testing, ambient air quality monitoring networks and emissions inventories.

ACHIEVEMENTS

U.S. EPA National Gold Medal Awards (2)

U.S. EPA National Bronze Medal Award

U. S. EPA Sustained Superior Performance Awards

CT DEP Outstanding Managerial Performance Awards (6 to date)

LEADERSHIP/ BOARDS

CT DEP representative to Connecticut Energy Conservation Management Board, 1999-present
State chair, NACAA (formerly STAPPA/ALAPCO) Global Warming and Stratospheric Ozone Committee, 2003-present
Co-chair, New England Governors/Eastern Canadian Premiers, Climate Change Steering Committee, 2002-03, 2006-present
Co-chair, stakeholder process to develop NESCAUM model rule for emissions performance standards, 1998
Co-chair, stakeholder process to develop national model rule for emissions standards for small generators [with Regulatory Assistance Project], 2000-01.
Chair, Connecticut Climate Change Committee [comprised of staff from six state agencies], 2005-present
Member, New Hartford, Connecticut, Conservation Commission, 1997-present
Co-leader, Appalachian Mountain Club, mountaineering training and trekking trips, Washington Cascades, 1983-84.

SELECTED LIST OF INVITED PRESENTATIONS

Hazardous Air Pollutant Emissions from Medical Waste Incinerators, Air and Waste Management Association, Pacific Northwest International Section, Whistler, British Columbia, November 1988.

Prevention of Significant Deterioration Training Course for British Columbia Ministry of Environment, Vancouver, British Columbia, 1992.

Pollution Prevention in Permitting Pilot Project, National Pollution Prevention Roundtable, Denver, Colorado, April 1998

Utility Restructuring in the Northeast, STAPPA/ALAPCO Membership meeting, Asheville, North Carolina, April 2000

Emissions Performance Standards for Distributed Generation, National Association of Energy Service Companies, Annual Meeting, Palm Springs, California, November 2000.

Air Emissions Impacts from Diesel Generators, NESCAUM workshop, Cambridge, Massachusetts, July 2001.

Air Emissions from Distributed Generation, FERC workshop, Washington, DC, February 2002.

Adding Value to Renewable Energy: SIP Integration, NREL, Golden, Colorado, June 2002.

Emissions Credits and Trading Potential for Renewable Energy and Fuel Cells, Fuel Cell Investment Summit, Uncasville, Connecticut, March 2004.

Regional Greenhouse Gas Initiative (RGGI), Council of State Governments, Uncasville, Connecticut, July 2005.

Connecticut's Combined Heat and Power/ Distributed Generation Initiatives, EPA Air Innovations Conference, Chicago, August 2005.

Northeastern States Efforts to Reduce Greenhouse Gas Emissions: Connecticut's Climate Change Action Plan, United Nations Conference of the Parties- 11, Montreal, Canada.

Monitoring and Verification: Measuring Progress on Climate Change Action Plans, EPA Air Innovations Conference, Denver, September 2006.

Energy Efficiency Attributes (Forward Capacity Market, RGGI and White Tags), NESEA, Boston, March 2007.