


United States Nuclear Regulatory Commission Official Hearing Exhibit

	In the Matter of: Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3)
	ASLBP #: 07-858-03-LR-BD01 Docket #: 05000247 05000286 Exhibit #: NYS000104-00-BD01 Admitted: 10/15/2012 Rejected: Other:

NYS000104
Submitted: December 14, 2011

Identified: 10/15/2012
Withdrawn:
Stricken:

PETER A. BRADFORD
P.O. BOX 497
PERU, VERMONT 05152
(802) 824-4296

PROFESSIONAL EXPERIENCE:

Peter Bradford is an adjunct professor at Vermont Law School, where he teaches “Nuclear Power and Public Policy” and has taught “The Law of Electric Utility Restructuring”. He also advises and teaches on utility regulation, restructuring, nuclear power and energy policy in the U.S. and abroad. He was a member and chair of the Public Oversight Panel for the Comprehensive Vertical Assessment of Vermont Yankee Nuclear Power Plant and has served as an expert witness on investment in new nuclear power plants in several states. He is one of Vermont’s two representatives on the Texas/Vermont Low Level Radioactive Waste Disposal Compact Commission. He has been a visiting lecturer in energy policy and environmental protection at Yale University.

He served on the U.S. Nuclear Regulatory Commission from 1977 until 1982. During his term, the NRC undertook major upgradings of its regulatory and enforcement processes in the wake of the Three Mile Island accident.

He chaired the New York State Public Service Commission from 1987 until 1995 and the Maine Public Utilities Commission from 1982 until 1987. During these years, New York resolved its stalemate over the Shoreham nuclear power plant and Maine resolved its involvement in Seabrook, both on favorable economic terms. He was Maine's Public Advocate in 1982 and was President of the National Association of Regulatory Utility Commissioners during 1987.

Prior to becoming a member of the NRC, he had served on the Maine Public Utilities Commission (1971-1977) and was Chairman in 1974-1975.

He served on the 2007 Keystone Center fact finding collaboration on nuclear power and the 2006 National Academy of Sciences panel evaluating the alternatives to continued operation of the Indian Point Nuclear Power Plants in New York. He is also affiliated with the Regulatory Assistance Project, which provides assistance to state and federal energy regulatory commissions regarding economic regulatory policy and environmental protection.

He served on a panel advising the European Bank for Reconstruction and Development on how best to replace the remaining Chernobyl nuclear plants in Ukraine and also on an expert panel advising the Austrian Institute for Risk Reduction on regulatory agency issues associated with the opening of the Mochovce nuclear power plant in Slovakia. He advised the Vermont Legislature on issues relating to spent fuel storage at Vermont Yankee and the Town of Wiscasset, Maine, on issues related to the storage of spent nuclear fuel at the site of the former

Maine Yankee nuclear power plant.

He has advised on electric restructuring issues and has testified on aspects of nuclear power, electricity and telecommunications restructuring in many U.S. states.

He has also advised on energy, telecommunications and water utility restructuring issues in China, Armenia, Azerbaijan, Canada, Georgia, India, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Samoa, South Africa and Trinidad and Tobago. He is a member of the Policy Advisory Committee of the China Sustainable Energy Program, a joint project of the David and Lucille Packard Foundation and the Energy Foundation.

Mr. Bradford was an advisor to Maine Governor Kenneth Curtis from 1968 to 1971, with responsibilities for oil, power and environmental matters. He assisted in preparing landmark Maine laws relating to oil pollution and industrial site selection and was Staff Director of the Governor's Task Force on Energy, Heavy Industry and the Coast of Maine.

Mr. Bradford is the author of Fragile Structures: A Story of Oil Refineries, National Security and the Coast of Maine, a book published by Harper's Magazine Press in 1975. His articles on utility regulation and nuclear power have appeared in many publications, including The New York Times, The Washington Post, The Los Angeles Times, The Boston Globe, The Atlanta Journal Constitution, The Bulletin of the Atomic Scientists, and The Electricity Journal.

He is a 1964 graduate of Yale University and received his law degree from the Yale Law School in 1968.

He is married, has three children and lives in Peru, Vermont.

PROFESSIONAL AFFILIATIONS:

1999-present - Member, Policy Advisory Committee, China Sustainable Energy Project (funded by the David and Lucille Packard Foundation and the Energy Foundation).

1998-2002 - Member, Advisory Council, New England Independent System Operator

Nov. 1986-Nov. 1987 President, National Association of Regulatory Utility Commissioners

1977-1995 NARUC positions, Member, Executive Committee; Member, Electricity Committee (1977-1989); Member, Gas Committee (1989-1993); Member, Communications Committee (1975-1977); Board of Directors, National Regulatory Research Institute (1985-1987).

1975-1977, 1982-1986. Advisory Council, Electric Power Research Institute

1987-1995, Member of New York State Energy Planning Board

1987-1995, Member, Board of Directors, New York State Energy Research and Development

Administration

1987-1995, Member, New York State Environmental Board;

1987-1995, Chair, New York State Energy Facilities Siting Board

1992-1994, State co-chair, New York State Task Force on Telecommunications Policy

Vice-chair, Board of Directors, Union of Concerned Scientists

Board of Directors, Nuclear Control Institute

EDUCATION:

1964 B.A. History, Yale University, New Haven, CT

1968 L.L.B., Yale University School of Law, New Haven, CT

AWARDS:

Honorary Degree, Unity College, 1981.

Environmental Award, Natural Resources Council of Maine, 1979.

PUBLICATIONS

Books

Fragile Structures: A Story of Oil Refineries, National Security and the Coast of Maine, 1975, Harpers Magazine Press.

Law Review

Maine's Oil Spill Legislation, Texas International Law Journal, Vol.7, No.1, Summer 1971, pp.29-43.

Articles

"Taxpayer Funding for Nuclear Power: Issues and Consequences", Chapter 5 of Nuclear Power's Global Expansion: Weighing Its Risks, Henry Sokolski, ed.

<http://www.npolicy.org/userfiles/image/Taxpayer%20Financing%20for%20Nuclear%20Power,%20Precedents%20and%20Consequences.pdf.pdf>;

Book review, *The End of Energy*, The Wall Street Journal, May, 2011;

"Nuclear Power's Search for the Taxpayer's Wallet", Blue Ridge Press, November, 2010.

"Honey, I Shrank the Renaissance: Nuclear Revival, Climate Change and Reality", Electricity

Policy.com, October, 2010, <http://www.electricitypolicy.com/bradford-5-18-11-final-edit.pdf>;
 “Nuclear Loan Guarantees and Governmental Secrecy”, The Atlanta Journal-Constitution, June 22, 2010, <http://www.ajc.com/opinion/we-may-be-on-555182.html>;
 “Minnesota’s Nuclear Moratorium”, Twin Cities Pioneer Press, March 3, 2010, http://www.twincities.com/alllistings/ci_14506848?source=rss;
 “The Nuclear Renaissance Meets Economic Reality”, Bulletin of the Atomic Scientists, November-December 2009, www.vermontlaw.edu/Documents/IEE/20100109_bradfordArticle.pdf;
 “Massive Nuclear Subsidies Won’t Solve Climate Change”, *Madison Capitol Times*, November 3, 2009, http://host.madison.com/ct/news/opinion/column/guest/article_37b3c6b1-dff6-5ef1-a21c-8a511e278961.html;
 “Nuclear Agency Needs Independent Appointees”, Atlanta Journal Constitution, September 17, 2009, <http://www.ajc.com/opinion/nuclear-agency-needs-independent-140954.html>
 Contribution to New York Times Forum “*Choking on Growth: China and the Environment*”, New York Times Online, November 20, 2007, <http://china.blogs.nytimes.com/2007/11/20/answers-from-peter-bradford/#more-24>
 Contributions to the Bulletin of the Atomic Scientists online forum on *Nuclear Power and Climate Change*, (with Amory Lovins and Stephen Berry), <http://www.thebulletin.org/roundtable/nuclear-power-climate-change/>, March-August, 2007
The Economics of Nuclear Power (with Steven Thomas, Antony Froggatt, and David Millbrow) for Greenpeace International, May, 2007
Nuclear Power’s Prospects in the Power Markets of the 21st Century, for the Nonproliferation Education Center, February, 2005;
China’s National Energy Plan: Some Energy Strategy Considerations, (with Thomas Johansson) The Sinosphere Journal, Spring 2004;
Some Environmental Lessons from Electric Restructuring, IUCN Colloquium on Energy Law for Sustainable Development, Winter 2004;
Where Have All the Safeguards Gone? Foreword to “Financial Insecurity: The Increasing Use of Limited Liability Companies and Multi-Tiered Holding Companies to Own Nuclear Power Plants” The Star Foundation August 7, 2002
Nuclear Power after September 11, OnEarth, December 2001.
The Unfulfilled Promises of Electric Restructuring, Nor’easter, summer 2001.
Considerations Regarding Recovery of Strandable Investment, PUR Utility Quarterly, December, 1997.
Ships at a Distance: Energy Choice and Economic Challenge, The National Regulatory Research Institute Quarterly Bulletin, Volume 18, Number 3, Fall, 1997, p. 287 (Originally the 1997 George Aiken Lecture at the University of Vermont).
 Book Review: *The British Electricity Experiment - Privatization: the Record, the Issues, the Lessons*, Amicus Journal, June, 1997;
Gorillas in the Mist: Electric Utility Mergers in Light of State Restructuring Goals, The National Regulatory Research Institute Quarterly Bulletin, Spring, 1997.
Til Death Do Us Part or the Emperor's New Suit: Does a Regulatory Compact Compel Strandable Investment Recovery?, PUR Utility Quarterly, October, 1996;
Electric Bargain's Cost Is Dirty Air, Newsday, L.A. Times Features Syndicate, 4/18/96.
A Regulatory Compact Worthy of the Name, The Electricity Journal, November, 1995, pp.12-15;
Paved with Good Intentions: Reflections on FERC's Decisions Reversing State Power

Procurement Processes, (with David Moskowitz), The Electricity Journal , August/September, 1995, pp.62-68;

That Memorial Needs Some Soldiers and Other Governmental Approaches to Increased Electric Utility Competition, The Electric Industry in Transition, Public Utility Reports & NYSERDA, 1994, pp.7-13;

Market-Based Speech, The Electricity Journal, September, 1994, p.85;

In Search of an Energy Strategy, Public Utilities Fortnightly, 1/15/92;

Parables of Modern Regulation, The Electricity Journal, November 1992, p.73;

Foreword to: *Regulatory Incentives for Demand Side Management*, Nickel, Reid, David Woolcott, American Council for Energy-Efficient Economy, 1992, pp. ix-xi;

Boats Against the Current: Energy Strategy in Theory and Practice, The Electricity Journal, October, 1991, p.64;

The Shoreham War Has Got to End Now, Newsday, 5/9/89;

Parallel to the Nuclear Age, Yale University 25th Reunion book, 1989;

Book Review: *Safety Second, A Critical Evaluation of the Nuclear Regulatory Commission's First Decade* IEEE Spectrum, February, 1988, p.14;

Somewhere Between Ecstasy, Euphoria and the Shredder: Reflections on the Term 'Pronuclear', Journal of the Washington Academy of Sciences, Vol.78, no.2, June 1988, pp. 139-142;

Book Review: *Power Struggle: The Hundred Year War Over Electricity*, Amicus Journal, Winter 1987, pp. 46-47;

Wall Street's Flawed Evaluation of State Utility Regulation, Bangor Daily News, September 3, 1984;

Reflections on the Indian Point Hearings, New York Times, 1/83;

Paradox and Farce: Trends in Federal Nuclear Energy Policy Los Angeles Times, June 6, 1982;

Keeping Faith with the Public, Nuclear Safety, March-April, 1981;

Regulation or Reassurance, Washington Post, August 16, 1979;

Report of the Governor's Task Force on Energy, Heavy Industry and the Maine Coast, 1972;

A Measured Response to Oil Port Proposals, Maine Times, July, 1971.

Testimony Before Courts, State Utility Regulatory Commissions and the NRC Concerning Nuclear Energy

Entergy Nuclear Vermont Yankee v. Peter Shumlin et al, U.S. District Court for the District of Vermont, September 2011;

In the Matter of Revised Application of Duke Energy Carolinas for Approval of Decision to Incur Nuclear Generation Project Development Costs, North Carolina Utilities Commission, March, 2011;

In re: Nuclear Cost Recovery Clause, Docket No. 090009-EI, Florida Public Service Commission, July 2009;

In re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants, Docket No. 080148-EI, Florida Public Service Commission, April, 2008;

Application of Duke Energy Carolinas, LLC for Approval of Decision to Incur Nuclear Generation Pre-Construction Costs, Docket No. 2007-440-E, Public Service Commission of South Carolina, March 2008;

In the Matter of Application of Duke Energy Carolinas to Recover Necessary Nuclear Generation Expenses, North Carolina Utilities Commission, March, 2008;

In Re: License Renewal Application Submitted by Entergy Nuclear Indian Point 2 and 3 LLCs,

NRC Docket Nos. 50-247-LR and 50-286-LR, declarations in November 2007 and February, 2011.

Investigation into General Order 45 Notice filed by Vermont Yankee Nuclear Power Corporation re: proposed sale of Vermont Yankee Nuclear Power Station and Related Transactions, Testimony Regarding Proposed Paragraph 15 of the Memorandum of Understanding, Docket 6545, Vermont Public Service Board, April, 2002

Selected Other Presentations Concerning Nuclear Energy

After-Math: TMI, Fukushima and Nuclear Power's U.S. Prospects, presentation to the American Bar association, October 2011;

How Many Renaissances Will It Take to Build a New U.S. Nuclear Power Plant?, presentation at the Aspen Institute, July 2011;

Aside From That, Ms. Lincoln, How Do You Like Nuclear Risk?, presentation to the New York Society of Security Analysts, March 2011;

Nuclear Power Is to Fighting Climate Change as Caviar Is to Fighting World Hunger, presentation at Columbia Law School Debate on Nuclear Energy, November, 2010.

It's Not A Renaissance Until You've Seen a Masterpiece: Nuclear Power and Climate Change in 2010, Speech, Hannover, Germany, September 2010

Better Never Than Late: Nuclear Power, Energy Policy and Climate Change, Vermont Law School Hot Topics Lecture, June 2010

"Nuclear Regulatory Commission Oversight Hearing", Senate Committee on Environment and Public Works, Subcommittee on Clean Air and Nuclear Safety, May, 2010;

Testimony on Nuclear Loan Guarantees Before the Domestic Policy Subcommittee of the U.S. House Oversight and Government Reform Committee;

"Nuclear Renaissance Myths and Realities", Testimony before the Michigan Senate Energy Committee, Lansing Michigan, April 23, 2009;

"Three Mile Island: Thirty Years of Lessons Learned", Testimony before the U.S. Senate Committee on Environment and Public Works, Subcommittee on Clean Air and Nuclear Safety, March 24, 2009;

Don't Call It A Renaissance Until They've Shown You a Masterpiece; Italian Embassy/Brookings Institution Forum on "The Rise In Demand for Civil Nuclear Power", Italian Embassy, December 9, 2008;

Subsidies Without Borders: The Case of Nuclear Power, Nonproliferation Policy Education Center and Marshall Institute forum, Washington, D.C., June 13, 2008;

Nuclear Power: Are the Star\$ Aligned? Harvard Electricity Policy Group; May 29, 2008;

Nuclear Power As "Federal Infrastructure", Nonproliferation Policy Education Center, Prague, Czech Republic, March 18, 2008;

Nuclear Power, Energy Security, and Climate Change, Center for Energy and Environmental Security, University of Colorado Law School, Boulder, Colorado, February 1, 2008;

Of Risks, Resources, Renaissances and Reality, Institute of Public Utilities, Charleston, South Carolina, December 4, 2007;

Nuclear Power and Climate Change; Chicago Humanities Festival; November 10, 2007

Risks, Rewards, Resources, Reality; Briefing on the Loan Guarantee Provisions of the 2007 Energy Legislation; Environmental and Energy Study Institute; Washington, D.C., October 30, 2007

Fool Me Twice? Rules for an Unruly Renaissance: Carnegie International Nonproliferation

Conference, Washington D.C., June 26, 2007
Regulation, Reality and the Rule of Law: Issues for a Nuclear Renaissance: Washington and Lee University, June 23, 2007.
The Future of Nuclear Energy, Bulletin of the Atomic Scientists Conference; University of Chicago, November 1, 2006
Nuclear Power and Climate Change, Society of Environmental Journalists, Burlington, Vermont, October 27, 2006
Nuclear Power, Climate Change and Public Policy, National Conference of State Legislatures, April, 2006.
Electric Restructuring after Ten Years: Surprises, Shocks and Lessons, State Legislative Leaders' Foundation, November, 2005;
Nuclear Power's American Prospects, Presentation to the California Energy Commission Nuclear Issues Workshop, August, 2005;
Decommissioning Financing: Alternatives and Policies, Conference on the Future of the Medzamor Nuclear Power Plant, Yerevan, Armenia, June 2005;
The Value of Sites Capable of Extended Storage of High Level Nuclear Waste, report for the Town of Wiscasset, Maine, December, 2004.
Nuclear Power's Prospects, NPEC/FRS/CAP/CEA Workshop, Paris, October 2004;
Did the Butler Really Do It? The Role of Nuclear Regulation in Raising the Cost of Nuclear Power, Cato Institute, Washington D.C. March 2004;
China's Energy Regulatory Framework China Development Forum, Beijing, November 17, 2003;
China's National Energy Plan (with Thomas Johansson) Background Reports to "China's National Energy Strategy and Reform", Development Research Center of the State Council, China Development Forum, November, 2003;
Repeating History: Nuclear Power's Prospects in a Carbon-Conscious World Yale School of Forestry and Environmental Studies, Leadership Council Meeting, October 24, 2003;
What Nuclear Power Can Learn from Electric Restructuring, and Vice Versa, Aspen Institute, July 5, 2003;
Renewal of the Price Anderson Act Testimony before the United States Senate Committee on Environment and Public Works Subcommittee on Transportation, Infrastructure and Nuclear Safety, January 23, 2002;
Events Now Long Past: The 20-Year Road from Three Mile Island to Electric Utility Restructuring TMI 20th Anniversary Commemoration, National Press Club, Washington D.C., March 22, 1999;
Preparing Nuclear Power for Competition NARUC Conference on "Nuclear Power in a Competitive Era: Asset or Liability?" January 23, 1997;
Call Me Ishmael: Reflections on the Role of Obsession in Nuclear Energy Policy, NARUC annual meeting, November 13, 1989;
Nuclear Power and Climate Change; Harvard Energy and Environmental Policy Center, January 13, 1989;
Somewhere between Ecstasy, Euphoria and the Shredder: Reflections on the Term Pro-Nuclear Symposium on Nuclear Radiation and Public Health Practices and Policies in the Post-Chernobyl World, Georgetown University, September 18, 1987;
Searching the Foreseeable Past: Nuclear Power, Investor Confidence and Reality Public Utilities Institute, East Lansing Michigan, July 30, 1987;

Where Ignorant Armies Clash by Night: Relationships Among Nuclear Regulators and Regulated NARUC/INPO Seminar on Nuclear Power Plant Safety and Reliability, January 22, 1987;

Why Do We Have a Nuclear Waste Problem Conference on Nuclear Waste, Naples, Maine, March 22, 1986;

With Friends Like These: Reflections on the Implications of Nuclear Regulation Institute of Public Utilities, Williamsburg, Virginia, December 13, 1982;

A Framework for Considering the Economic Regulatory Implications of the Accident at Three Mile Island Iowa State Regulatory Conference, May 20, 1982;

The Man/Machine Interface Public Citizen Forum, March 8, 1982;

A Perspective on Nuclear Power The Groton School, January 15, 1982;

Reasonable Assurance, Regulation and Reality ALI-ABA Course of Study on Atomic Energy Licensing and Regulation, September 24, 1980;

Misdefining the National Security in Energy Policy from Machiasport to Three Mile Island Environmental Law Institute, University of Maine, May 1, 1980

Condemned to Repeat It? Haste, Distraction, Rasmussen and Rogovin Risks of Generating Electricity, Seventh Annual National Engineers' Week Energy Conference, February 21, 1980;

Lightening the Nuclear Sled; Some Uses and Misuses of the Accident at Three Mile Island Seminar on the Problems of Energy Policy, New York University, November 21, 1979;

The Nuclear Option: Did It Jump or Was It Pushed? NARUC Regulatory Studies Program, August 2, 1979;

How a Regulatory View of Nuclear Waste Management is Like a Horse's Eye View of the Cart 90th NARUC Annual Convention, November 15, 1978;

Sentence First: Verdict Later: Some Thoughts on the Level of Acclaim Thus Far Afforded the Nuclear Siting and Licensing Act of 1978 ALI-ABA Course of Study, September 28, 1978;

Some Observations on Recent and Proposed Changes in Nuclear Regulatory Commission Jurisdiction, Atomic Industrial Forum Workshop on Reactor Licensing and Safety, April 5, 1978.