Abridged Curriculum Vitae RICHARD F. HIRSH

Dept. of History (and Program in Science & Technology Studies) Virginia Polytechnic Institute and State University (Virginia Tech)

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CURRENT AND PAST POSITIONS

1980-	Assistant Prof. (1980-94), Assoc. Prof. (1984-91), and Full Professor (1991-)				
	Dept. of History (and participating faculty member in Science & Technology Studies), Virginia T				
1983-85	On leave from VT, visiting research fellow at Harvard Business School				
1979-80	Lilly Foundation Postdoctoral Teaching Fellow, University of Florida				
1976&77	Historian, National Aeronautics and Space Administration (summers), Washington, DC				

EDUCATION

1979 P	h.D., History	of Science,	University	of Wisconsin	, Madison, WI.
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- 1980 M.S., Physics, University of Wisconsin, Madison, WI.
- 1976 M.A., History of Science, University of Wisconsin, Madison, WI.
- B.A., cum laude, History, Middlebury College, Middlebury, VT.

AWARDS AND HONORS (Selected)

- Appointed to Academy of Faculty Service, recognizing VT faculty members who demonstrate "exceptional service to the university beyond their usual responsibility."
- Land-Grant Scholar's Award, for faculty member within the VT College of Liberal Arts and Human Sciences (CLAHS) whose work favorably "reflects the engagement mission of the university."
- 2005 IEEE Life Members' Prize in Electrical History, recognizing the best paper in electrical history published during 2004, presented by the Society for the History of Technology.
- Excellence in Research and Creative Scholarship Award, VT CLAHS.
- Sturm Award for Excellence in Faculty Research, awarded by Phi Beta Kappa, Mu of VT.

GRANTS (Selected)

- 2012- Interdisciplinary Graduate Education Program in Remote Sensing, VT Graduate School. Participating member on this graduate program, which sponsors an STS student for three years.
- 2015 "American Jobs Project," sponsored by Univ. of California, Berkeley and the JPB Foundation, \$20,000 for my participation in policy research on wind turbine technology and the creation of jobs in Virginia.
- 2008-11 Research Training Award, U.S. Department of Agriculture, \$229,500, 2008-38420-18742, "USDA National Needs Fellowship in Bio-Fuel Systems." Co-PI with colleagues in Depts. of Agricultural & Applied Economics and Biological Systems Engineering.
- 2009-10 Research Award, Appalachian Regional Commission (through the Cadmus Group, of Arlington, VA), \$249,000, "Planning and Financing Energy-Efficient Infrastructure." Contributor on grant with others.
- 2003-07 Research Award, National Science Foundation, Program in Electric Power Networks Efficiency and Security (EPNES), \$350,000, plus supplemental educational grant of \$120,000, "A Holistic Approach to the Design and Management of a Secure and Efficient Distributed Generation Power System." (With 7 other colleagues and several graduate students.) Lead PI and project director.
- 2001-05 Research Award, National Science Foundation, Program in Science & Technology Studies, \$81,443, SES-0112430, "Technological Change in a Deregulated Era: A Study of Innovation in Environmentally Preferable Technologies in a Restructured Electric Utility System." PI.
- 1984-85 Research Award, National Endowment for the Humanities, Program in the Humanities, Science and Technology, RH-20539-84, jointly funded by the NSF, Program in the History and Philosophy of Science, \$31,500. "Limits to Technological Progress in the Electric Power Industry, 1960 to 1975." PI.

SELECTED PUBLICATIONS

Books

- Powering Up American Farms: The Overlooked Origins of Rural Electrification in the Early Twentieth Century (Baltimore: Johns Hopkins University Press, 2022), ix + 358 pp.
- *Power Loss: The Origins of Deregulation and Restructuring in the American Electric Utility System* (Cambridge, MA: MIT Press, 1999 [paperback, 2002]), xi + 406 pp.
- *Technology and Transformation in the American Electric Utility Industry* (Cambridge: Cambridge University Press, 1989 [paperback, 2002]), xiv + 274 pp.
- Glimpsing an Invisible Universe: The Emergence of X-Ray Astronomy (Cambridge: Cambridge University Press, 1983 [paperback, 1985]), viii + 186 pp.

Articles and book chapters

- "Sociotechnical agendas: Reviewing future directions for energy and climate research," *Energy Research & Social Science* 70 (Dec. 2020): 1-35 with many other authors, incl. Benjamin K. Sovacool and David Hess.
- "Shedding New Light on Rural Electrification: The Neglected Story of Successful Efforts to Energize Farms in the 1920s and early 1930s," *Agricultural History* 92, no. 3 (Summer 2018): 296-327.
- "Welcoming the PIMBY ("Please in my backyard") Phenomenon: The Acceptance of Wind Turbines and the Culture of the Machine in the Rural Midwest," (with J.T. Brinkman), *Technology and Culture* 58, no. 2 (2017): 335-67, https://muse.jhu.edu/article/662980.
- "Electricity Consumption and Economic Growth: A New Relationship with Significant Consequences?" (with Jonathan G. Koomey), *The Electricity Journal* 28, no. 9 (Nov. 2015): 72-84.
- "Generating Knowledge and Power: The Role of Land-Grant Colleges in Electrifying America," in Alan I. Marcus, ed., *Science as Service: Establishing and Reformulating American Land-Grant Universities*, 1865-1930 (Tuscaloosa, AL: University of Alabama Press, 2015), 193-238.
- "History's Contributions to Energy Research and Policy," (with Christopher F. Jones), *Energy Research & Social Science* 1 (Mar. 2014): 106-11.
- "Wind Turbines and Invisible Technology: Unarticulated Reasons for Local Opposition to Wind Energy," (with B.K. Sovacool), *Technology and Culture* 54 (Oct. 2013): 705-34.
- "Historians of Technology in the Real World: Reflections on the Pursuit of Policy-Oriented History," *Technology and Culture* 52 (Jan. 2011): 6-20.
- "Beyond Batteries: An Examination of the Benefits and Barriers to Plug-in Hybrid Electric Vehicles (PHEVs) and a Vehicle-to-Grid (V2G) Transition," (with B.K. Sovacool), *Energy Policy* 37 (2009): 1095-1103.
- "Assessing U.S. Energy Policy," (with Marilyn A. Brown and Benjamin K. Sovacool), *Daedalus* (Journal of the American Academy of Arts and Sciences) 135 (#3, Summer 2006): 5-11.
- "Power Struggle: Changing Momentum in the Restructured American Electric Utility System," *Annales historiques de l'électricité* (No. 2, June 2004): 107-123. Winner of the 2005 IEEE Life Members' Prize in Electrical History presented by the Society for the History of Technology.
- "Revamping and Repowering," Forum for Applied Research and Public Policy 15 (No. 2, Summer 2000): 12-18.
- "Power Switch: Will the Restructured Electric Utility System Help the Environment?" (with A.H. Serchuk), *Environment* 41 (Sept. 1999): 4-9, 32-39.
- "Momentum Shifts in the American Electric Utility System: Catastrophic Change or No Change at All?" (with A.H. Serchuk), *Technology and Culture* 37 (Apr. 1996): 280-311.
- "How Success Short-Circuits the Future," Harvard Business Review 86 (Mar./Apr. 1986): 72-6.

SELECTED RECENT PRESENTATIONS

- "The Public Utility Regulatory Policies Act (PURPA) of 1978: A brief primer," presentation at conference on "PURPA @ 40," University of Utah Law School, Salt Lake City, UT, 9 Nov. 2018.
- "NIMBY and PIMBY: Why People Hate—and Love—Wind Turbines," University of Mass-Amherst, IGERT Offshore Wind Energy Program Seminar Series Lecture, Amherst, MA, 14 Apr. 2016.
- "Innovation, Stagnation, and Innovation in the American Electric Utility System," Workshop on the Nature of Technological, Social and Industrial Innovation and Transition in Power Generation and Delivery, Santa Fe Institute, Santa Fe, NM, 30 Mar. 2016.
- "Shedding New Light on Rural Electrification: The Neglected Story of Successful Efforts to Energize Farms in the 1920s and early 1930s," History of Science, Technology, and Medicine Colloquium, Univ. of Minnesota, Program in HSTM, Minneapolis, MN, 19 Feb. 2016.
- "Energy Consumption and Economic Growth: The history (and possible) future of an altered relationship," Univ. of Minnesota, Institute for Advanced Studies, Minneapolis, MN, 18 Feb. 2016.