CURRICULUM VITAE

Willett Main Kempton

Current Positions

Professor, School of Marine Science and Policy, College of Earth, Ocean, and Environment Professor, Department of Electrical and Computer Engineering, College of Engineering Associate Director and Founder, Center for Research in Wind (CReW) Professor, Public Policy & Administration, Biden School of Public Policy and Administration Affiliated Professor, Department of Anthropology University of Delaware, Newark, DE 19716

Affiliated Professor, Technical University of Denmark, DTU Elektro

Co-Founder and Chair of Technical Advisory Board, Nuvve Corp, Nuvve Ltd, Nuvve ApS

Contact information

phones: (302) 831–0049 (ofc), (302) 831–6838(fax) e-mail: willett@udel.edu web: https://www.udel.edu/academics/colleges/ceoe/departments/smsp/faculty/willett-kempton/ V2G web: https://crew.udel.edu/v2g/ twitter: @WillettKempton born: 21 March 1948; U.S. citizen ORCID ID: 0000–0002–7284–8954

Fields of Interest

Offshore wind power; vehicle-to-grid power; integration of variable generation into power systems; environmental and energy policy; anthropological studies of citizens' environmental values and actions; mental models; cognitive anthropology.

Education

University of California, Berkeley. Postdoctoral training in quantitative anthropology with public policy emphasis, 1977 – 1978.

University of Texas at Austin. Ph.D. in anthropology, 1977.

University of Virginia, Charlottesville. B.A. in sociology and anthropology, with background in electrical engineering and computer science, 1972.

Professional Employment

Affiliated Professor 2017-present, DTU Elektro, Danish Technical University (Danmarks Tekniske Universitet), Kgs. Lyngby, Denmark.

Professor, 2009-present; Associate Professor, 1999-2009; Assistant Professor, 1995-1999; College of Earth, Ocean, and Environment (School of Marine Science and Policy). Professor, Department of Electrical and Computer Engineering; Professor, Energy and Environmental Policy program; Founding Director, Center for Carbon-free Power Integration (now Center for Research on Wind—CReW) 2009-2011; now Associate Director of CReW, 2019-present). (all at University of Delaware)

Chief Technology Officer, Nuvve Corp, 2010 – 2019, Nuvve Corp, Nuvve ApS, Nuvve Ltd.

Otto Mønsted Gæst Professor, Center for Electric Technology (CET), Department of Electrical Engineering (DTU-Elektro) July 2011 – January 2012.

Senior Policy Scientist, Center for Energy and Environmental Policy, University of Delaware. 1992 - 2004.

Research Anthropologist, Center for Energy and Environmental Studies, Princeton University, 1985 – 1992.

Lecturer, Department of Human Ecology, Rutgers University, Spring 1992.

Lecturer, Department of Anthropology, and Preceptor, Woodrow Wilson School, Princeton University, periodically 1987 - 1991.

Visiting Assistant Professor, Social Relations Group, School of Social Sciences, U.C.Irvine, Spring 1983.

Research Associate, Family Energy Project, College of Human Ecology; and Adjunct Assistant Professor, Department of Anthropology, Michigan State University. 1980 – 1985.

Lecturer, Department of Anthropology, U.C.Berkeley: 1979–1980.

Assistant Research Anthropologist, Department of Anthropology, U.C.Berkeley: 1977–79.

Teaching assistant, consultant, and class instructor for anthropological uses of statistics and computer methods, Department of Anthropology, Univ. of Texas at Austin: 1975 – 1977.

Institutions created

Center for Research in Wind (CReW) — Originally named Center for Carbon-free Power Integration — University of Delaware. Co-founder and founding Director, 2008-2011. As of 2021, eight Governing Scientists, and 14 affiliated scientists.

Electric Vehicle R&D Group, at UD. Three PIs and about 15 researchers. Yearly operating budget about \$700K. Created 2010.

Nuvve Corp, Co-founder 2010, startup based on WK's patents. As of 2020, WK is chair of technical advisory board. Listed on Nasdaq Composite as Nuvve Holding Corp., NVVE.

Offshore Wind Skills Academy at U of Delaware. Established jointly by Energy & Climate Academy in Denmark, and College of Earth, Ocean and Environment at UD, in October 2018. Cofounders John Madsen (UD), Kempton (UD) and Torben Kirkegaard (ECA).

Grants, Fellowships, Awards

Named to Wilmington News Journal's "List of most influential Delawareans" under the area of "Science and Technology," January 2021.

Exelon Corp., "Demonstration Of Vehicle-To-Grid (V2G) Power And Value Of V2G Grid Services". Awarded June 2020 thru May 2023, \$603K.

DNREC, "Demonstration Of Storage From Electric Vehicles Used For Both Grid Market Participation And Emergency Power", Oct 2020 thru May 2023. \$200K.

Nuvve Corp, "Grid Integrated Vehicles and Aggregation Server" Awarded 2017 through Aug 2024, R&D \$400K/year.

National Renewable Energy Lab, "Open V2X at ESIF". Subcontract No. NCS-42326-05 from NREL to UD. April 2015 through October 2018. \$403K.

Lectureship, invited by the EU Commission programme "Erasmus Mundus Master in Economics and Management of Network industries." The EMIN Master involves U Paris-Sud, U of Delft (Netherlands) and U of Comillas (Spain). With financial help of the Armard Peugot Chair on Economics and Management of Electromobility. Paris, France, Nov 2012.

Nuvve Corporation, "Grid Integrated Vehicles: Support of European Implementations". continuation through August 2016. \$100,000.

DNREC, "Charging up Delaware" ~\$80,000, through December 2016.

NRG Energy, "eV2G Research, Development and Demonstration". \$400K/year (continuation granted Sept 2014).

US Dept of Energy, Mid-Atlantic Offshore Wind Interconnection and Transmission (MAOWIT), Award Number DE-EE0005366. Oct 2011-Aug 2017, ~\$500 K

US Dept of Energy, "A System Design Study for Wilmington Canyon Offshore Wind Farm", (Final report titled "Industrializing Offshore Wind Power"). Award DE-EE0005484. Oct 2011 - Dec 2017. ~\$500 K

US Dept of Energy, "Atlantic Advanced Wind Consortium", June 2010 - December 2013. \$750K.

US Dept of Energy, "V2G Demonstration", Sept 2008 – Dec 2010. \$738K.

Pepco Holdings, Inc., Vehicle to Grid Power, July 2007 – July 2010, \$250K

Google.org, "Megawatt scale vehicle-to-grid research and implementation planning." July 2007-Dec 2008, \$145K

DE Green Energy fund. "Vehicle-to-Grid for renewable energy storage." March 2007 -

DE Green Energy Fund, "Clarifying the Prospects for Offshore Wind Power" February 2006 – January 2008 (with Jeremy Firestone)

Conectiv Power Delivery, "Innovation R&D: Market Potential for Distributed Ancillary Services from Battery Systems". November 2003– May 2004. (With Jasna Tomic)

Kirsh Foundation, "Zero-Emission Vehicles as a Source of Clean and Reliable Electricity in California". Grant No. 2001-1791. March 2001 - April 2002. (With Jasna Tomic)

California Air Resources Board and Univ of California, "Feasibility of Electric Drive Vehicles for Distributed Power Generation Assets in California." CARB Agreement 01-00609V. Sept 2000-May 2001.

US Environmental Protection Agency, Office of the Science Advisory Board. "Understanding Values, Attitudes, and Decision Factors Related to Ecological Risk Management." (Tampa Bay) January – May 2001.

National Aeronautics and Space Administration, Office of Policy and Plans, "American Values Regarding the Space Program", Jan 2000 – August 2001.

Delaware Public Service Commission, "Research on Consumer Education to Prepare for Consumer Choice". (Feb 2000).

National Oceanic and Atmospheric Administration, "Pfiesteria piscicida and Risk Perception in Delaware's Estuarine Systems: Understanding User Group Reactions and Developing Policy Strategies." June 1998-2000. (dissertation support for Katherine Bunting-Howarth)

National Science Foundation, Anthropology Program, "Identity and Environmental Action: The US Environmental Movement as a Context for Behavioral Change." (with Dorothy Holland, UNC Chapel Hill, Co-PI). NSF# SBR-96-02016. Sept 1996 – Aug 2002.

US Environmental Protection Agency, Atmospheric Pollution Prevention Division, "Innovative Billing Options for Gas and Electric Utilities" Design and evaluate program to use utility bills to increase energy conservation. Cooperative agreement CX 824452-01-0, Oct 1995 – May 1999.

US Department of Energy, "Communications Technologies and Demand-Side Management" Analysis of information and educational possibilities using the proposed National Information Infrastructure. US DOE contract # DE-AC03-76SF00098 to LBL, Subcontract LBL-4611010 to UDel. May 1995-June 1996.

E Source, "Feedback as a tool for energy conservation." Contracted analysis for distribution as E Source Report, Dec 1994- April 1995.

U.S. Department of Energy, Office of Utility Policy, "Customer-Focused Demand-Side Management." Review of Education and Feedback as tools for DSM. DOE Cooperative Agreement # DE-FG43-93R340423 (with Merrilee Harrigan, Alliance to Save Energy) 1994-1995.

National Institute for Global Environmental Change and University of California, Davis: Interviews with OECD Environmental Policy Advisors regarding Global Warming (with Paul Craig, UC Davis and Mark Levine, Lawrence Berkeley Laboratory). 1991.

National Science Foundation: Global Climate Change: Folk Models and Intracultural Variation. BNS - 8921860 (with James Boster). February 1990 - January 1992.

Award of Excellence, awarded by <u>Classroom Computer Learning</u>, for Dr. Pascal software, January 1988.

Praxis Award, "for excellence in translating anthropological knowledge into action". Honorable mention, presented at 1987 AAA meetings by WAPA (with Linda Layne).

Summer Faculty Research Program, Research on novice learning of computer programming, Future Technologies Program, Naval Personnel Research and Development Center. July – Sept 1984.

National Science Foundation research grant: The Genesis and Use of Folk Theory in Everyday Tasks, BNS 82-10088 (with Joanne Keith). September 1982- February 1985.

National Science Foundation research grant: Experimental Semantics, BNS 78-15900 (with Paul-Kay). September 1978- February 1980.

National Institute of Mental Health postdoctoral fellowship, Program in Quantitative Anthropology with Public Policy Emphasis. Directed by E.A.Hammel, Department of Anthropology, University of California, Berkeley.

National Science Foundation doctoral dissertation grant: A Graded Category Model of Folk Classification in a Central Mexican Community, SOC 75–20505. Also supported by grant for ethnographic fieldwork related to archaeology, University of Texas Latin American Archaeological Program. 1975–1976.

Fieldwork

Interview Cape Cod and Martha's Vineyard residents regarding planned offshore wind development in Nantucket Sound. October 2004 and June(?) 2004.

Interviews with seafood consumers regarding Pfiesteria piscicida, Washington, DC, November 1997.

Interview coastal managers regarding sea level rise and global climate change, Raleigh, Durham, and Beaufort, NC. July-August 1996.

Cultural, political and economic influences on negotiating positions on global warming, June – September, 1991. Interview government officials in Austria, United Kingdom, Sweden and Germany, citizens in Austria.

American environmentalism and global warming. Interviews with members of the public, environmentalists, congressional staff, and industry representatives, 1988 – 1991, New Jersey, Washington, DC, and Michigan.

U.S. fieldwork on energy construction and real estate industry (1978, California), family energy consumption (1980–85, Michigan) and multi-family (apartment) energy use (1985–1988, New Jersey).

Color naming and color perception in Tarahumara. Samachique, Chihuahua, Mexico: April 1979.

Folk classification of utensils: cognitive variation and change (dissertation field work). Tlaxcala, Mexico: February- October 1976.

Ethnographic research leading to dissertation proposal. State of Mexico, Mexico, summer 1974.

Books and Edited Volumes

1995 <u>Environmental Values in American Culture</u>. (With James S. Boster and Jennifer A. Hartley) Cambridge, MA: MIT Press. Paperback edition, 1996, with minor corrections.

1992 <u>Air Conditioning: The Interplay of Technology, Culture and Comfort</u>. Special issue of Energy and Buildings (Vol 18, No. 3-4) edited by W. Kempton and L. Lutzenhiser.

1987 <u>Energy Efficiency: Perspectives on Individual Behavior</u>. Washington, D.C: American Council for an Energy–Efficient Economy. (Edited volume with Max Neiman; Kempton revised all contributions and wrote section introductions.)

1984 <u>Families and Energy: Coping with Uncertainty</u>. (With Bonnie Morrison). Conference volume, Institute for Family and Child Study, Michigan State University.

1981 <u>The Folk Classification of Ceramics: A Study of Cognitive Prototypes</u>. New York: Academic Press.

Reviewed Articles and Chapters

- 2022 Parkison, Sara B. and W. Kempton, "Marshaling Ports Required to Meet US Policy Targets for Offshore Wind Power" <u>Energy Policy</u> Vol 163, April 2022, 112817. DOI:10.1016/ j.enpol.2022.112817. Note on significance: Parkison was invited to present this at the lead wind industry conference in 2021 (ACP Offshore), this paper was reported in many articles and the industry press, and preprint was requested by American Clean Power Assn. to distribute to members, their board, and relevant Congressional committee staff.
- 2021 Olga Mironenko, Willett Kempton, Fouad Kiamilev, "Current Sensing Techniques for Revenue Metering and Detection of Direct Current Injection from Electric Vehicles: A Review" <u>SAE International Journal of Electrified Vehicles</u> 10(2): 2021.(formerly SAE International Journal of Alternative Powertrains). SAE Article ID: 14-10-02-0010. doi: 10.4271/14-10-02-0010
- 2021 Mironenko, Olga, Garrett Ejzak and Willett Kempton, "Integrated Electric Vehicle Shunt Current Sensing System for Concurrent Revenue Metering and Detection of DC Injection" Energies 2021, 14, 1193. DOI: 10.3390/en14041193.
- 2020 Bai, Kuncheng, Rodney McGee, and Willett Kempton, "Metering requirements and design for an electrical vehicle charging system providing grid services." <u>SAE International</u> <u>Journal of Sustainable Transportation, Energy, Environment, & Policy</u> 1(2):145-152, doi: 10.4271/13-01-02-0009.
- 2020 Olga Mironenko, Willett Kempton, "Comparing Devices for Concurrent Measurement of AC current and DC Injection During Electric Vehicle Charging" <u>World Electric Vehicle</u> Journal, Vol 11, Article# 57. doi:10.3390/wevj11030057.
- 2020 Nakano, Hikari, Ikumi Nawata, Shinkichi Inagaki, Akihito Kawashima, Tatsuya Suzuki, Akira Ito, and Willett Kempton, "Aggregation of V2H Systems to Participate in Regulation Market" <u>IEEE Transactions on Automation Science and Engineering</u>, Volume 18, Issue 2, April 2021), pp 668 – 680 (online publication 25 June 2020; print April 2021.) DOI: 10.1109/TASE.2020.3001060
- 2020 Stijn Vandael, Tom Holvoet, Geert Deconinck, Hikari Nakano and Willett Kempton, "A Scalable Control Approach for Providing Regulation Services with Grid-Integrated Electric Vehicles". Chapter 6 in <u>Design and Analysis of Distributed Energy Management Systems-Integration of EMS, EV, and ICT</u>. ISSN: 2196-3185. pp 107-128. Editors: Suzuki, T., Inagaki, S., Suski, Y., Tran, A.T. (Eds.), Series: Power Electronics and Power Systems. ©2020 Springer Nature Switzerland AG. DOI: 10.1007/978-3-030-33672-1_6
- 2019 Elpiniki Apostolaki-Iosifidou, Regina McCormack, W. Kempton, Et Al, "Transmission Design and Analysis for Large-Scale Offshore Wind Energy Development" <u>IEEE Power and Energy Technology Systems Journal</u>, Vol 6, No. 1: 22–31 (Feb 2019). DOI: 10.1109/ JPETS.2019.2898688.
- 2018 Thomson, Heather; Willett Kempton, "Perceptions and attitudes of residents living near a wind turbine compared with those living near a coal power plant" <u>Renewable En-</u> <u>ergy</u> 123: 301-311. DOI: 10.1016/j.renene.2017.10.036

- 2018 Elpiniki Apostolaki-Iosifidou; Paul Codani; Willett Kempton, "Reply to Shirazi and Sachs comments on "Measurement of Power Loss During Electric Vehicle Charging and Discharging", <u>Energy</u> 142: 1142-1143. DOI 10.1016/j.energy.2017.10.080
- 2018 Benjamin K Sovacool, Lance Noel, Jonn Axsen and Willett Kempton, "The neglected social dimensions to a vehicle-to-grid (V2G) transition: a critical and systematic review" <u>Environmental Research Letters</u> 13 (1) . http://iopscience.iop.org/article/ 10.1088/1748-9326/aa9c6d/meta
- 2017 Sovacool, Benjamin K.; Axsen, Jonn; Kempton, Willett, "The Future Promise of Vehicleto-Grid (V2G) Integration: A Sociotechnical Review and Research Agenda." <u>Annual Review of Environment and Resources</u> Volume: 42. Pages: 377-406. doi: 10.1146/annurev-environ-030117-020220.
- 2017 Elpiniki Apostolaki-Iosifidou; Paul Codani; Willett Kempton, "Measurement of Power Loss During Electric Vehicle Charging and Discharging" <u>Energy—The International Jour-</u> <u>nal</u> 127: 730-742. doi: 10.1016/j.energy.2017.03.015
- 2017 Noel, Lance, Joseph F. Brodie, Willett Kempton, Cristina L. Archer, and Cory Budischak, "Cost minimization of generation, storage, and new loads, comparing costs with and without externalities." <u>Applied Energy</u>, Volume: 189, Pp 110–121. DOI: 10.1016/ j.apenergy.2016.12.060
- 2017 Archer, C. L., H. P. Simão, W. Kempton, W. B. Powell, and M. J. Dvorak, The challenge of integrating offshore wind power in the U.S. electric grid. Part I: Wind forecast error. <u>Renewable Energy</u>, doi: 10.1016/j.renene.2016.11.047.
- 2017 Simão, H.P., W. B. Powell, C. L. Archer, W. Kempton, The challenge of integrating offshore wind power in the U.S. electric grid. Part II: Simulation of electricity market operations. <u>Renewable Energy</u>, doi: 10.1016/j.renene.2016.11.049.
- 2016 W. Kempton, Electric Vehicles: Driving Range. Section: "News and Views" <u>Nature Ener-</u> gy Article # 16131 (15 August 2016), pp 1-2. DOI: 10.1038/nenergy.2016.131
- 2016 Brian Colle; Matthew Sienkiewicz; Cristina Archer; Dana Veron; Fabrice Veron; John Mak, and Willett Kempton, "Meteorological Observations for U.S. East Coast Offshore Wind Power: Improving the Mapping and Prediction of Offshore Wind Resources (IM-POWR)" <u>Bulletin of the American Meteorological Society</u>, August 2016, Vol 97, No. 8. doi: 10.1175/BAMS-D-14-00253.1
- 2016 Jonathan J. Buonocore, Patrick Luckow, Jeremy Fisher, Willett Kempton, Jonathan I. Levy, "Health and Climate Benefits of Offshore Wind Facilities in the Mid-Atlantic United States", <u>Environmental Research Letters</u> 11 (2016) 074019 doi:10.1088/1748-9326/11/7/074019
- 2015 "Undergraduate Understanding of Climate Change: The Influences of College Major and Environmental Group Membership on Survey Knowledge Scores." (Johanna Huxster, Ximena Uribe-Zarain, and Kempton). Journal of Environmental Education, Volume: 46(3): 149-165. DOI: 10.1080/00958964.2015.1021661. Read more at: http://phys.org/ news/2015-07-undergraduate-misconceptions-climate.html#jCp
- 2015 Satoru Shinzaki, Hakaru Sadano, Yutaka Maruyama (Honda R&D Co., Ltd.); Willett Kempton, "Deployment of Vehicle-to-Grid Technology and Related Issues" Presented at SAE World Congress, Detroit, April, 2015. SAE Paper 2015-01-0306.
- 2014 Mark Z. Jacobson, Cristina L. Archer, Willett Kempton, "Taming Hurricanes With Arrays of Offshore Wind Turbines" <u>Nature Climate Change</u> 4, 195–200, doi:10.1038/nclimate2120.
- 2014 Alessandro Pensini, Claus N. Rasmussen, Willett Kempton, Economic analysis of using excess renewable electricity to displace heating fuels. <u>Applied Energy</u> 131: 530-543. doi:10.1016/j.apenergy.2014.04.111.
- 2014 Parsons, George R.; Hidrue, Michael K.; Kempton, Willett; Gardner, Meryl P., Willingness to pay for vehicle-to-grid (V2G) electric vehicles and their contract terms. <u>Energy</u> <u>Economics</u> 42: 313-324. DOI: 10.1016/j.eneco.2013.12.018
- 2014 Willett Kempton, Yannick Perez et Marc Petit, «Public Policy for Electric Vehicles and for Vehicle to GridPower», <u>Revue d'économie industrielle</u> 2014/4 (148), p. 263-290.

- 2013 Stijn Vandael, Sachin Kamboj, Tom Holvoet, Geert Deconinck, Willett Kempton, "A comparison of two GIV mechanisms for providing ancillary services at the University of Delaware", <u>Proceedings</u> of the 4th IEEE International Conference on Smart Grid Communications (SmartGridComm 2013), Vancouver, 21–24 October 2013.
- 2013 Budischak, Cory, DeAnna Sewell, Heather Thomson, Leon Mach, Dana E. Veron, and Willett Kempton, Cost-minimized combinations of wind power, solar power, and electrochemical storage, powering the grid up to 99.9% of the time, Journal of Power Sources, 225(2013), 60-74. doi: 10.1016/j.jpowsour.2012.09.054
- 2013 "Business models and control and management architectures for EV electrical grid integration" (by Willett Kempton, Francesco Marra, Peter Bach Andersen, and Rodrigo Garcia-Valle). Chapter 4 in <u>Electric Vehicle Integration into Modern Power Networks</u>, Series: Power Electronics and Power Systems, Volume 2, edited by Rodrigo Garcia-Valle & João Peças Lopes. Springer. ISBN 978-1-4614-0133-9
- 2012 "Public Acceptance of Offshore Wind Power across Regions and through Time," (J. Firestone et al), J Environmental Planning and Management.
- 2012 "Calculating the offshore wind power resource: Robust assessment methods applied to the U.S. Atlantic Coast" (B. Sheridan, S. D. Baker, N.S.Pearre, J. Firestone, W. Kempton) <u>Renewable Energy</u> Volume 43, pp 224–233. doi: 10.1016/j.renene.2011.11.029.
- 2011 "Pricing Offshore Wind Power" (Andrew C. Levitt, Willett Kempton, Aaron P. Smith, Walt Musial, Jeremy Firestone) <u>Energy Policy</u> 39: 6408-6421. doi:10.1016/ j.enpol.2011.07.044
- 2011 "Willingness to Pay for Electric Vehicles and Their Attributes" (Michael K Hidrue, George R Parsons, Willett Kempton, Meryl P. Gardner) <u>Resource and Energy Economics</u> 33 (2011) 686-705, doi:10.1016/j.reseneeco.2011.02.002
- 2011 "Electric Vehicles: How Much Range is Required for a Day's Driving?" (Nathaniel S. Pearre, W. Kempton, Randall L. Guensler, Vetri V. Elango), <u>Transport. Res. Part C:</u> <u>Emerging Technologies</u> 19(6): 1171–1184, doi:10.1016/j.trc.2010.12.010.
- 2011, "Deploying Power Grid-Integrated Electric Vehicles as a Multi-Agent System" (Kamboj, S., Kempton, W. and Decker, K.), Proceedings of the Tenth International Joint Conference on <u>Autonomous Agents and Multiagent Systems</u> (AAMAS 2011). (Acceptance Rate: 22%)
- 2010, "Exploring the formation of Electric Vehicle Coalitions for Vehicle-To-Grid Power Regulation" (Kamboj, S., Decker, K., Trnka, K., Pearre, N., Kern, C. and Kempton, W.), in 2010 AAMAS workshop on <u>Agent Technologies for Energy Systems</u> (ATES@AAMAS 2010).
- 2010 "Electric power from offshore wind via synoptic-scale interconnection" (Kempton, Pimenta, Veron and Colle) <u>Proceedings of the National Academy of Sciences</u> 107 (16): 7240-7245. (April 20, 2010) doi: www.pnas.org/cgi/doi/10.1073/pnas.0909075107
- 2010 "The Effect of Wind Power Installations on Coastal Tourism" (Lilley, Meredith Blades, Jeremy Firestone and W. Kempton) Energies 3(1), 1–22; (special issue on Wind Energy) doi:10.3390/en3010001. Reprinted 2012 in ECOTOURISM AND SUSTAINABLE TOURISM: New Perspectives and Studies, Jaime A. Seba (Ed), Toronto: Apple Academic Press (Taylor & Frances Group).
- 2008 "Assessing the wind field over the continental shelf as a resource for electric power." (Richard W. Garvine and Kempton) Journal of Marine Research 66 (6), November 2008, pp. 751-773. DOI: 10.1357/002224008788064540
- 2008 "Combining meteorological stations and satellite data to evaluate the offshore wind power resource of Southeastern Brazil" (Felipe Pimenta, Kempton, and Richard Garvine) Renewable Energy 33 (11): 2375-2387 doi:10.1016/j.renene.2008.01.012
- 2008 "Public Acceptance of Offshore Wind Power Projects in the United States" (Firestone, Jeremy, W. Kempton and A. Krueger) Wind Energy 12(2): 183 – 202. DOI: 10.1002/ we.316
- 2008 "Integration of renewable energy into the transport and electricity sectors through V2G" (Henrik Lund, W. Kempton) <u>Energy Policy</u> 36 (9): 3578-3587. doi:10.1016/j.enpol.2008.06.007

- 2008 "Assessing offshore wind resources: An accessible methodology" (A. Dhanju, P. Whitaker, W. Kempton) <u>Renewable Energy</u> 33(1): 55-64. doi: 10.1016/ j.renene.2007.03.006. (Note: Journal issue date is 2008, copyright and doi date are 2007)
- 2007 "Using Fleets of Electric-drive Vehicles for Grid Support" (J. Tomić and W. Kempton) Journal of Power Sources 168 (2): 459-468, doi:10.1016/j.jpowsour.2007.03.010.
- 2007 "Large CO2 reductions via offshore wind power matched to inherent storage in energy end-uses", (Kempton, W., C. L. Archer, A. Dhanju, R. W. Garvine, and M. Z. Jacobson) <u>Geophys. Res. Lett</u>., 34, L02817, doi:10.1029/2006GL028016.
- 2007 J. Firestone and W. Kempton, (2007) Public Opinion about Large Offshore Wind Power: Underlying Factors (Kempton and J. Firestone) <u>Energy Policy</u> 35: 1584-1598. doi:10.1016/j.enpol.2006.04.010.
- 2005 "Comparison Groups on bills: automated, personalized energy information" (lyer, Kempton and Payne) <u>Energy and Building</u>s, Vol 38 (8): 988–996. doi:10.1016/j.enbuild.2005.11.009
- 2005 "Vehicle to Grid Fundamentals: Calculating Capacity and Net Revenue" (Kempton and Jasna Tomić) J. Power Sources Volume 144(1): 268-279. doi:10.1016/ j.jpowsour.2004.12.025.
- 2005 "Vehicle to Grid Implementation: From stabilizing the grid to supporting large-scale renewable energy". (Kempton and J. Tomić) J. Power Sources Volume 144 (1): 280-294. doi:10.1016/j.jpowsour.2004.12.022.
- 2005 "The Offshore Wind Power Debate: Views from Cape Cod" (Kempton and Jeremy Firestone, Jonathan Lilley, Tracy Rouleau, and Phillip Whitaker). <u>Coastal Management Journal</u> 33 (2): 119-149. DOI: 10.1080/08920750590917530
- 2004 "Regulating Offshore Wind Power and Aquaculture: Messages from Land and Sea (Jeremy Firestone, W. Kempton, A. Krueger, and C.E. Loper), <u>Cornell Journal of Law and Public Policy</u>, 14 (1): 71–111. (Cover date is "Fall 2004", actually published March 2005) republished in <u>Environmental Law Reporter</u> (Environmental Law Institute), 35:10289–10307 (May 2005), republished in Oil, Gas, Energy Law Intelligence (OGEL), <u>www.gasandoil.com/ogel/</u>, 3(2) (June 2005)
- 2004 "Who is an Environmentalist? The Polysemy of Environmentalist Terms and Correlated Environmental Actions". (Danielle Tesch and Kempton). Journal of Ecological Anthropology 8: 67-83.
- 2003a "Changes in fisheries management in Mexico: Effects of increasing scientific input and public participation" (Alvaro Hernandez and W. Kempton) <u>Ocean and Coastal Management</u> 46: 507 -526.
- 2003b "Identity and Sustained Environmental Practice." (Kempton and Holland) pp 317-341 in <u>Identity and the Natural Environment: The Psychological Significance of Nature</u> (ed., S. Clayton and S. Opotow). Cambridge, MA: MIT Press.
- 2003c "Global environmentalism: A challenge to the post-materialist thesis?" In <u>Environ-ment, Energy, and Society: Exemplary Works</u> Edited by Craig R. Humphrey, Tammy L.Lewis and Frederick H. Buttel (pp 326-344). Bellmont, CA: Wadsworth/Thompson Learning. (Reprinted from Brechin & Kempton 1994)
- 2002b "The V2G Concept: A new Model for Power?" (Steven Letendre and W. Kempton) <u>Pub-lic Utilities Fortnightly</u> Feb 15, 2002. 17-26.
- 2001a "Cognitive Anthropology and the Environment". Pp 49-71 in <u>New Directions in An-</u> <u>thropology & Environment</u>, Carole L. Crumley, editor, Walnut Creek: AltaMira Press.
- 2001b "Local Environmental Groups: A Systematic Enumeration in Two Geographical Areas" (Willett Kempton, Dorothy C. Holland, Katherine Bunting-Howarth, Erin Hannan and Christopher Payne) <u>Rural Sociology</u> Vol 66(4): 557–578.
- 2000a "Cultural Models of Pfiesteria." (Kempton and James Falk). <u>Coastal Management</u> 28(4): 273-285.

- 2000b "Electric-drive Vehicles for Peak Power in Japan" (Kempton & Toru Kubo) <u>Energy Pol-icy</u> 28(1): 9-18.
- 2000c "Identity Through Stories: Story Structure and Function in Two Environmental Groups" (Anne Kitchell, Erin Hannan, Kempton) <u>Human Organization</u> 59(1): 96-105.
- 2000d "Identities and Actions within Environmental Groups" <u>Human Ecology Review</u> 7(2):1-20. (Anne Kitchell, Kempton, Dorothy Holland and Danielle Tesch).
- 2000e "The legacy of twenty years of energy demand management: We know a little more about individual behavior but next to nothing about demand" (H. Wilhite, E. Shove, L. Lutzenhiser, W. Kempton), pp 109–126, In <u>Society, Behaviour and Climate Change Mitigation</u>, Eberhard Jochem, Jayant Sathaye and Daniel Bouille (eds), in the series "Advances In Global Change Research". Kluwer Academic Publishers: Dordrecht, The Netherlands.
- 1997a "Beyond Postmaterialist Values: National versus Individual Explanations of Global Environmentalism", S. Brechin and W. Kempton (Response to Kidd and Lee), <u>Social Science</u> <u>Quarterly</u> 78(1):16-20.
- 1997b "Cultural and Social Evolutionary Determinants of Consumption" (W. Kempton and Christopher Payne) pp 116–123, P.C. Stern, T. Dietz, V. W. Ruttan, R. H. Socolow, and J. L. Sweeney (eds), <u>Environmentally Significant Consumption: Research Directions</u>. Washington, DC: National Academy Press.
- 1997c "Electric vehicles as a new power source for electric utilities." (W. Kempton and Stephen Letendre) <u>Transportation Research. Part D, Transport and Environment.</u> 2 (3): 157–175. doi:10.1016/S1361-9209(97)00001-1. Note on significance: These findings were reported in <u>New Scientist</u> 13 Sept 97, Reuters wire service 30 Sept, was made into a science radio report by the American Institute of Physics (distributed Dec '97 to hundreds of radio stations), plus being covered in multiple trade publications and scienceoriented internet sites.
- 1997d "How the Public Views Climate Change" <u>Environment</u> 39(9): 12–21. To be reprinted 1998 in Dorothy U. Seyler (ed), <u>Read, Reason, Write</u>, 5th Ed, McGraw-Hill College Divison.
- 1995a "Global Climate Change: European Policy Makers' Views of How Science Enters the Political Process." (authors: W. Kempton, Paul Craig, Craig Kuennen) <u>Energy & Environ-</u> <u>ment</u> 6(2): 87-105. Also "Reponse to Comment by Dr. Sonja Boehmer-Christansen" (same authors) Vol 6(3):256-258.
- 1995b "Response to Review of: Environmental Values in American Culture." Reviewed by Willett Kempton, Journal of Political Ecology 2(1):36–38. DOI: 10.2458/v2i1.20164
- 1994a "Global Environmentalism: A Challenge to the Postmaterialism Thesis?", S. Brechin and W. Kempton. <u>Social Science Quarterly</u> 75(2): 245–269. To be reprinted in <u>Social</u> <u>Statistics in a Diverse Society</u>, first edition, Pine Forge Press, to appear January 1997.
- 1994b "The Consumer's Energy Analysis Environment." (with Linda Layne) <u>Energy Policy</u> 22: 857–866. Invited for special issue, "Markets for energy efficiency."
- 1993a "European Perspectives on Global Climate Change." W. Kempton and P. Craig, <u>Envi-</u> <u>ronment</u> 35(3): 16-20, 41-44 (April 1993).
- 1993b "Gradacja Kategorii A Zwiazki Taksonomiczne: Kubek jest odmiana filizanki" pp 99 137 in <u>Amerykanska Antropologia Kognitywna</u>, Michal Buchowski (ed), Warsaw: Instytut Kultury. (Translation of Kempton 1981 by by O. Kubinska).
- 1993c "Ethics and Values in Environmental Policy: The Said and the UNCED." P. Craig, H. Glasser, and W. Kempton, <u>Environmental Values</u> 2(2):137–157. Expanded and revised as Glasser, Craig and Kempton, 1994, pp 83–107 in <u>Concept, Methods and Policy for Sus-tainable Development: Critique and New Approaches</u>, Jeroen C.J.M. van den Bergh and Jan van der Straaten (Eds.). Washington DC and Covelo CA: Island Press.
- 1993d "Will Public Environmental Concern Lead to Action on Global Warming?" <u>Annual Re-view of Energy and the Environment</u>, Vol 18: 217 245.
- 1992a "Introduction." by W. Kempton and Loren Lutzenhiser. Guest editors' introduction to "Air Conditioning: The Interplay of Technology, Culture and Comfort." Special Issue of <u>Energy and Buildings</u> 18(3-4):171-176.

- 1992b "`I Always Turn it on Super': User Decisions about When and How to Operate Room Air Conditioners". (by W. Kempton, D. Feuermann, and A. McGarity) <u>Energy and Buildings</u> 18(3-4): 177-192. Reprinted in Japanese translation, 1994, in <u>Kuki Chowa Eisei</u> <u>Kogaku</u> 68(3):51-58, Tokyo: Society of Heating, Air-Conditioning and Sanitary Engineers of Japan.
- 1992c "Utility Control of Residential Cooling" (by W. Kempton, Cathy Reynolds, Margaret Fels, and David Hull), <u>Energy and Buildings</u> 18(3-4):201-220.
- 1992d "Psychological Research for the New Energy Problems: Strategies and Opportunities", (by W. Kempton, John Darley and Paul Stern) <u>American Psychologist</u> 47 (10): 1213–1223. (October 1992)
- 1991a "Maybe Somebody forgot to turn the Chiller On": Energy Information and Behavior in Small Businesses (Paul Komor and Willett Kempton). J. Environmental Systems 20(2): 111–127.
- 1991b "Shaving Residential Air-Conditioning Electricity Peaks by Intelligent Use of the Building Thermal Mass". <u>Energy--The International Journal</u> 16 (7): 1001-1010. (authors T.A. Reddy, L.K. Norford, and W. Kempton).
- 1991c "Lay Perspectives on Global Climate Change." <u>Global Environmental Change</u>, 1(3): 183–208. Appeared simultaneously in the book <u>Energy Efficiency and the Environment:</u> <u>Forging the Link</u>, Ed Vine, Dru Crawley, and Paul Centolella (Eds.), 1991, Washington: ACEEE Press.
- 1991d "Public Understanding of Global Warming." <u>Society and Natural Resources</u> 4(4): 331-345.
- 1990 "Run-time Detection of Undefined Variables Considered Essential" (with Brian A. Wichmann). <u>Software Practice and Experience</u> 20(4): 391-402.
- 1987a "Thermostat Management: Intensive Interviewing Used to Interpret Instrumentation Data." (with Shirlee Krabacher) pp.245-262 in Kempton & Neiman (Eds.) 1987.
- 1987b "Residential Hot Water: A Behaviorally-Driven System", pp. 229-244 in Kempton and Neiman (Eds), 1987. Abridged version appeared "simultaneously" in 1988, <u>Energy--</u> <u>The International Journal</u> 13(1): 107-114.
- 1987c "Answering Behavioral Questions about Energy Efficiency in Buildings" (with Paul C. Stern et al) <u>Energy--The International Journal</u> 12(5): 339-353.
- 1987d "Behavioral Determinants of Energy Consumption in a Centrally-Heated Apartment Building" (with John M. DeCicco). <u>Energy Systems and Policy</u> 11: 155-168.
- 1987e "Variation in Folk Models and Corresponding Behavior" <u>American Behavioral Scien-</u> <u>tist</u> (special volume on Intracultural Variation) 31 (2): 203-218.
- 1986a "Two Theories of Home Heat Control." <u>Cognitive Science</u> 10:75 90. Reprinted and expanded 1987 in <u>Cultural Models in Language and Thought</u>, D.Holland and N.Quinn (Eds.), Cambridge University Press. Also appeared, abridged, in conference volume <u>Families and Energy</u>, Morrison and Kempton (Eds.), 1984.
- 1986b "The Effectiveness of Incentives for Residential Energy Conservation (with Paul Stern et al) Evaluation Review 10(2): 147-176.
- 1986c "A System to Make Visible the Structure and Execution of Student Programs." <u>SIGCSE</u> <u>Bulletin</u>, (Special Interest Group on Computer Science Education, Association for Computing Machinery) Vol.18(1): 313-317. Also presented at SIGCSE 17th Technical Symposium, Cincinnati, Ohio, 7 February 1986.
- 1986d "Household Thermal Management." In <u>Consumer Behavior and Energy Policy: An In-</u> <u>ternational Perspective</u>, pp. 295-306, E. Monner, et al. (Eds.), New York, Praeger Publishers.
- 1985a "Tarahumara Color Modifiers: Individual Variation and Evolutionary Change" (with Don Burgess and Robert MacLaury). In <u>Directions in Cognitive Anthropology</u>, Janet W.D.– Dougherty (Ed.), U.of Illinois Press, 1985, (Expanded draft of 1983a).
- 1985b "Residential Hot Water Energy Analysis:Instruments and Algorithms"(with Jeffrey S.Weihl). <u>Energy and Buildings</u>8:197 204.

- 1984a "Interview Methods for Eliciting Fuzzy Categories." <u>Fuzzy Sets and Systems</u> 14(1): 43-64.
- 1984b "What is the Sapir-Whorf Hypothesis?"(with Paul Kay). <u>American Anthropologist</u> 86(1):65-79. (Also appeared as Berkeley Cognitive Science Report No.8, U.C.Berkeley, April 1983.)
- 1984c "Do Consumers Know `What Works' in Energy Conservation?" (with Craig Harris, Joanne Keith, and Jeffrey Weihl). In <u>What Works: Documenting Energy Conservation in</u> <u>Buildings</u>, J.Harris and C.Blumstein (eds.), Washington, DC:American Council for an Energy-Efficient Economy. Also appeared, revised, in <u>Marriage and Family Review</u> 9:115-133, Fall 1985, special issue: Families and the Energy Transition.
- 1983a "Tarahumara Color Modifiers: Category Structure Presaging Evolutionary Change (with Don Burgess and Robert MacLaury). <u>American Ethnologist</u> 10(1):133-149.
- 1983b "Home Insulation: The User's View" (with Peter Gladhart and Dennis Keefe). In F.A.-Govan, D.M.Greason, and J.D. McAllister (Eds.), <u>Thermal Insulation, Materials, and Sys-</u> <u>tems for Energy Conservation in the 80s</u>, <u>ASTM STP789</u>, pp.69-80. Philadelphia: American Society for Testing and Materials.
- 1982 "Folk Quantification of Energy" (with Laura Montgomery). <u>Energy--The International</u> Journal 7(10):817-828.
- 1981 "Category Grading and Taxonomic Relations" (revised from 1978 <u>American Ethnologist</u> article). In Ronald W.Casson (Ed.) <u>Language, Culture and Cognition</u>: <u>Anthropological Per-</u> <u>spectives</u>, pp.203-230, New York: MacMillan.
- 1980 "The Rhythmic Basis of Interactional Micro-Sychrony." In Mary Richie Key (Ed.), <u>Verbal</u> <u>and Nonverbal Communication</u> pp.67-75. The Hague: Mouton.
- 1978 "Category Grading and Taxonomic Relations: A Mug is a Sort of a Cup." <u>American</u> <u>Ethnologist</u> 5(1):44-65.
- 1977 "Grading of Category Membership in the Folk Classification of Ceramics: Socially Correlated Cognitive Variation and a Test of the Theory of Fuzzy Subsets." (Dissertation) Ann Arbor: University Microfilms International. (UMI publication date 15 June 1978).
- 1976 "Child Language Socialization" (with Ben G.Blount) Sign Language Studies 12:251-277.
- 1975 "The Use of Micro-Kinesic Signals in Speech Understanding." Journal of Auditory Research 15:81-86.

Reviews and Selected Unrefereed Publications

- 2022 "Offshore Wind Procurement Options for Delaware: Report to the State of Delaware" (Kempton, Lillian E. Peterson, Amy Boseels, and Kris Ohleth). Requested by Delaware General Assembly and DNREC. Distributed by the Special Initiative on Offshore Wind, College of Earth, Ocean, and Environment. Available at https://sites.udel.edu/ceoesiow/publications. Report date 27 Feb 2022, to be released by DNREC March 2022.
- 2020 "Feasibility Assessment for an Offshore Wind Marshalling Port in the Delaware Bay." (Emma House, Zach Roy, Sarra Sundstrom, Emily Tulsky, Sara Parkison and Willett Kempton), Report to UD Spin-In Program. Funded by: Office of Economic Innovation and Partnerships (OEIP) Spin-In Team, University of Delaware. https://cpb-us-w2.wpmucdn.com/sites.udel.edu/dist/5/8632/files/2020/07/OEIP-Delaware-Bay-Port-Assessment.pdf
- 2019 "Requirements For Advanced Offshore Wind Marshaling Ports." W. Kempton, 23 Sep 2019, available from: <u>https://cpb-us-w2.wpmucdn.com/sites.udel.edu/dist/5/8632/files/2020/07/advanced-port-requirments-2.pdf</u>
- 2019 "Final Report: Open V2X at ESIF: June 2015 February 2017." W. Kempton, Golden, CO: National Renewable Energy Laboratory. NREL/SR-5B00-70279. Subcontract NCS-5-42326-05. https://www.nrel.gov/docs/fy19osti/70279.pdf.
- 2017 "Industrializing Offshore Wind Power with Serial Assembly and Lower-cost Deployment", Final Report to US DOE (99 pages), 11 Dec 2017. Principal Investigator: Willett

Kempton; UD Project Managers: Andrew Levitt, Richard Bowers; engineering by multiple industrial contractors. Archived in OSTI.GOV, DOI: https://doi.org/10.2172/1412660

- 2017 "EV Fingerprinting" R.L. Houser, W. Kempton, R. McGee, F. Kiamilev, N. Waite. In <u>WCX™</u> <u>17: SAE World Congress Experience</u>, ISSN:0148-7191, DOI: 10.4271/2017-01-1700
- 2016 "Massachusetts Offshore Wind Future Cost Study" W. Kempton, Stephanie McClellan, and Deniz Ozkan. Report, Special Initiative on Offshore Wind, April 2016. Available at <u>https://www.ceoe.udel.edu/File%20Library/About/SIOW/MA-Offshore-Wind-Future-Cost-Study-rev-4-April-16.pdf</u>. (Industry credited this report as an essential element creating MA first legislative requirement for offshore wind.)
- 2016 Joanna K. Huxster, Ximena Uribe-Zarain, and Willett Kempton. "Mental Models of Climate Change Science and Mitigation: Identifying current misconceptions to inform communication." Manuscript.
- 2015 "New York Offshore Wind Cost Reduction Study" Prepared for: New York State Energy Research and Development Authority, Albany, NY. (Stephanie McClellan, Deniz Ozkan, Willett Kempton, Andrew Levitt, Heather Thomson). Report distributed by NY ERDA and UD Special Initiative on Offshore Wind. 15 Feb 2015. 71+15 pp <u>http://</u> www.ceoe.udel.edu/File%20Library/About/SIOW/New-York-Offshore-Wind-Cost-Reduction-Study-ff8-2.pdf (This report and associated advising was credited by the Chair of the NY Public Service Commission as the primary stimulus and guidance for NY's policies on offshore wind, resulting in the 2019 NY law requiring 9 GW through 2035.)
- 2014 "Public Policy for Electric Vehicles and for Vehicle to Grid Power" (Kempton, Perez, Yannick and Petit, Marc,). Available at SSRN: <u>https://ssrn.com/abstract=2487800</u> or <u>http://dx.doi.org/10.2139/ssrn.2487800</u>
- 2008 "A Test of Vehicle-to-Grid (V2G) for Energy Storage and Frequency Regulation in the PJM System: Results from an Industry-University Research Partnership" (Willett Kempton, Victor Udo, Ken Huber, Kevin Komara, Steve Letendre, Scott Baker, Doug Brunner, & Nat Pearre). Report, distributed by CCPI, UD. November 2008, revised Jan 2009. 32pp.
- 2008 "Foundation stones for US success" [review of US offshore wind projects] (Jeremy Firestone, W. Kempton and Jacqueline Piero) <u>reNews</u> (Renewable Energy News), Issue 143, 1 May 2008, page 12.
- 2006 Electric Vehicles with V2G Storage for Large-Scale Wind Power. (with A. Dhanju) <u>Windtech International</u> 2(2): 18-21 (March 2006)
- 2004 Review of Health and Community Design. Environment, 46 (4): 44.
- 2001a "Vehicle-to-Grid Power: Battery, Hybrid, and Fuel Cell Vehicles as Resources for Distributed Electric Power in California." (Kempton, J. Tomic, S. Letendre, A. Brooks, and T. Lipman) Davis, CA: Institute of Transportation Studies Report # IUCD-ITS-RR-01-03.
 77+xiv pages. (Sponsored by California Air Resources Board and Los Angeles Department of Water and Power.)
- 2001b "American Values Relating to Space and Undersea Programs. Phase I: Results of a Literature Review and Pilot Study" Final report to the National Aeronautics and Space Administration. (Willett Kempton, Steve Rayner, Jennifer Harris and Anahita T. Marker) 111 pp, March 2001.
- 2000 "Understanding Mid-Atlantic Residents' Concerns, Attitudes, and Perceptions about Harmful Algal Blooms: Pfiesteria Piscicida." (J. M. Falk, F. L. Darby, and W. Kempton) Newark, DE: Sea Grant College Program: DEL-SG-05-00
- 1996 "Impact of Information and Communications Technologies on Residential Customer Energy Services." C. Goldman, W. Kempton, A. Eide, M. Iyer, M. Farber and R. Scheer. Lawrence Berkeley National Laboratory Report LBNL-39015, UC-1322, October 1996. 87+83 pp.
- 1995a "Feedback as Customer-Focused Demand-Side Management." W. Kempton and V. Ramakrishna, CEEP Report, March 1995.

- 1995b "Empowering Customer Energy Choices: A Review of Personal Interaction and Feedback in Energy Efficiency Programs." Merrilee Harrigan, Willett Kempton, and Vijaykumar Ramakrishna. Report, Alliance to Save Energy: Washington, DC. 62 pp
- 1995c "Improving Residential Customer Service through Better Utility Bills" E Source Strategic Memo SM-95-1, August 1995. 20 pp. Boulder, CO: E Source.
- 1994 "Are Blower Doors Hazardous?" <u>Home Energy</u> 11(1): 9–10.
- 1993a "Delaware Weatherization Leveraging Project" Final Report. (authors J. Byrne, W. Kempton, C. Kuennen, Y. D. Wang), July 1993. CEEP.
- 1993b "Weatherization: Trends, Issues & New Technologies" (SET Report to Delaware legislature). (authors: C. Kuennen, A. Miller, C. Wang, Supervisors: J. Byrne, W. Kempton). June 1993.
- 1992 "Comment on Rustan Mody" SIGCSE Bulletin (Special Interest Group on Computer Science Education) 24(2):1.
- 1990 "Lay Perspectives on Global Climate Change." PU/CEES Report 251, August 1990.
- 1989 "Energy Use Information and Behavior in Small Commercial Buildings." (authors P. Komor, W. Kempton, J. Haberl) PU/CEES Report #240, July 1989.
- 1988a "Design Criteria for a Consumer Energy Report: A Pilot Field Study". (with L. Layne, A. Behrens, R. Diamond, M. Fels, and C. Reynolds). PU/CEES Report 220.
- 1988b "Redesign of Air Conditioner Controls Based on a Field Study of User Behavior" (Coauthor and copresenter, Art McGarity). In Proceedings, 1988 ACEEE Summer Study.
- 1988c "The Consumer's Energy Information Environment" (Coauthor, Linda Layne). In Proceedings, 1988 ACEEE Summer Study.
- 1987a "Archive: Software for Management of Field Data" (with Daniel Feuermann). PU/ CEES Report No. 216, June 1987. (Accompanying software designed by Kempton, implemented by Feuermann and Kempton).
- 1987b "Air Conditioner User Behavior in a Master-Metered Apartment Building." (with D. Fenermann and A.E. McGarity). Proceedings, Symposium on Improving Building Energy Efficiency in Hot and Humid Climates, pp 186-194
- 1987c "Influence of Air Conditioner Operation on Electricity Use and Peak Demand." (with A. McGarity, D. Feuermann, and L.K. Norford). Proceedings, Symposium on Improving Building Energy Efficiency in Hot and Humid Climates, pp 102–111.
- 1986 "Categorías Ethnosemánticas de la Alfarería Tlaxcalteca." In <u>Historia y Sociedad en</u> <u>Tlaxcala</u>, Gobierno del Estado de Tlaxcala <u>et al</u>, Mexico, DF, Mexico, pp.238-246.
- 1985a "Defining the DEC Rainbow keyboard for Turbo Pascal."<u>The DEC Professional</u> 4(8): +p10 - +p14.
- 1985b "Residents' Perceptions of Heating and Ventilation in a Senior Citizen Public Housing Project." (with John DeCicco). PU/CEES Working Paper No.80, December 1985.
- 1984a "Collecting Quantitative Behavioral Data." Practicing Anthropology 6(2): 9.
- 1984b "Towards More Informative Energy Bills" (with Margaret F.Fels). Princeton University Center for Energy and Environmental Studies Report No.164.
- 1983a "Weights and Measures: Taking a Count of Energy." <u>Soft Energy Notes</u> 6 (1): 6-7. Reprinted in <u>Michigan Energy Journal</u> 7(6):11-12.
- 1983b "Review of <u>Mental Models</u>" (with Jean Lave). <u>American Anthropologist</u> 85(4): 1002–1004.
- 1982b Review of: Walburga von Raffler-Engel, Aspects of Nonverbal Communication. <u>American Anthropologist</u> 84 (3):741-742.
- 1982a "Willett Kempton, letter and papers" (with P.Gladhart, D.Keefe, and L.Montgomery). <u>Fiscal Year 1983 Dept.of Energy Budget Review (Conservation and Renewable Energy)</u>. Hearings before the Committee on Science and Technology, U.S.House of Representa-

tives, No.112, Vol.II, pp 1015–1068. Washington: U.S. Government Printing Office. (This material later appeared in refereed publications.)

- 1981 Review of: Scherer and Giles, Social markers in Speech. <u>Man, The Journal of the Roy-</u> <u>al Anthropological Institute</u>, 16(1): 155–156.
- 1980 Book note: Alan Lomax, Folk Song Style and Culture (1978 edition). <u>American An-thropologist</u> 82 (2):458.
- 1979b "Experimental Semantics" (with Paul Kay) and "Cognitive Mapping Program." <u>Folk</u> <u>Classification Bulletin</u> 2 (1):3-5.
- 1979a "Fuzzy Sets and Folk Classification: Reply to Hunn." <u>Folk Classification Bulletin</u> 3 (1): 7-13. (Note: Folk Classification Bulletin is now incorporated into <u>Journal of Ethnobi-ology</u>.)
- 1978a "Suggestions for Pascal Implementations." <u>Pascal News</u> 11:40-41.
- 1978b Construction of Energy Conservation Scenarios (with Peter Benenson, et al.). Interim Report to U.S.Department of Energy, June 1978. Publication LBL 7834, 219 pp. Berkeley: Lawrence Berkeley Laboratory.
- 1978c "The Causes of Lawsuits Against Energy Conservation Building Codes" (with research and editorial assistance from Bonnie Cornwall.) Part five (LBL 7896, 15 pp.)in the series <u>Energy Conservation: Policy Issues and End-Use Scenarios of Savings Potential</u>, by Peter Benenson, et al., September 1978. Berkeley: Lawrence Berkeley Laboratory.
- 1977 "Social Correlates of Informant Variation in Folk Classification." <u>Papers from the 1977</u> <u>Mid-American Linguistics Conference</u>, pp.219–234. Columbia: University of Missouri. (Conference October 1977, papers published early 1978.)

Editorial Boards

Journal of Ecological Anthropology. Advisory Board, May 2000 – present.

<u>ENERGY - The International Journal</u>, (Elsevier), Member of the Editorial Board, Jan 2010 - Dec 2021

Symposia and Conferences Organized

2019 "East Coast Ports, Current Status and Future Plans" (6 Panelists), (Kempton was Moderator and Chair) US Offshore Wind 2019, Boston, June 10-11, 2019.

2018 "Industrializing Offshore Wind with In-Port Assembly" (Panel organized & moderated by Kempton) Panel Session 2 at International Offshore Wind partnership Forum. Princeton, NJ, 4 April 2018.

2008 "Offshore Wind Workshop" (organized by the US American Wind Energy Association, with the support of the University of Delaware--Kempton & Firestone were on organizing committee and laid out and invited two of the three keynote speakers, as well as many of the policy and technical speakers for the substantive panels). Wilmington, DE, Sept 1–10, 2008. This was the first industry offshore wind conference in the Americas.

2007 "Clean Electric cars backing up renewable energy" (organized by Kempton, K. Kumara and K. Huber of PJM Interconnection). Official Side Event at the Washington International Renewable Energy Conference, Washington, DC, 6 March 2007.

2007 "Delaware Leaders Addressing Climate Change" (organized by Stephanie McClellan and Willett Kempton), Public presentation by panel of five DE leaders, Bacchus Theatre, Perkins Center, U of DE. 5 April 2007.

2007 "Workshop on Offshore Wind Power for Delaware" (Kempton, Firestone and Piero, organizers) Sheraton Dover, 16 Feb 206, policymakers in am, public and businesses in afternoon; concurrent poster session. Sponsored by DE Energy Office, UD DoE and DE Sea Grant.

2005 "V2G Technical Symposium" (Kempton was scientific organizer; logistical and funding support by Sustainable Ballard, Climate Solutions, and Seattle City Light), Seattle, WA, 6–7 June 2005

1999 New Social Movements and the Local: Making Environmental Identities and Structures for Social Change. Organizers: W. Kempton and D. Holland. 1999 AAA Annual Meetings, Chicago, IL, November 1999.

1996 "Energy and Environmental Policy: Global, National and Local Tensions" Symposium coorganizer and cochair (with Amy K. Wolfe), Society for Applied Anthropology annual meetings, Baltimore MD, 29 March 1996.

1994 "Human Dimensions." Panel chair (with Loren Lutzenhizer) 1996 ACEEE Summer Study, Asilomar, CA, 25-31 Aug 1996.

1994 "Human Dimensions of Energy Use." Panel chair (with Lee Schipper) 1994 ACEEE Summer Study, Asilomar, CA, 28 Aug – 3 Sept 1994.

1992 "Viewing the Environment through Multiple Lenses" organizer and chair. Session invited by General Anthropology Division and American Ethnological Society, AAA Meetings, San Francisco, 3 December 1992.

1991 "Ethnography of Drug Use in Traditional and Modern Societies" organizer and chair. Full-day symposium at AAAS meetings, Washington, D.C., 25 February 1991. (Eight papers by anthropologists, split between traditional societies and the U.S.).

1990 "Human Dimensions" Panel chair (with Bonnie Morrison) for 1990 ACEEE Summer study, Asilomar, CA, August 1990.

1988 "Innovations in Utility Billing for Conservation and Customer Service". Conceived and organized this workshop, held at Princeton University Engineering School for 40 participants from utilities, universities, government agencies, and consulting firms.

1988 "Cognitive Ethnography of Industrialized Society" organizer and chair. Symposium sponsored by American Ethnological Society at AAAS meetings, Boston, 14 February 1988. 1986 "Social and Health Factors in Energy Efficiency in Buildings", Panel leader (24 papers presented in panel), 1986 Summer Study, American Council for an Energy-Efficiency Economy. 1984a "Perspectives on Individual Behavior." Panel leader (with Max Neiman), American Council

for an Energy-Efficient Economy, 1984 Summer Study, Santa Cruz, CA.

1984b "Household Resource and Energy Management." Co-organizer (with Dan Gross), AAA Meetings, Denver, 17 November 1984.

1983a "Families and Energy:Coping with Uncertainty." (International conference at Michigan State Univ.) Co-organizer of paper sessions; 58 papers presented (Bonnie Morrison, Conference Chair.)

1983b "Energy Policy Research." Co-organizer and co-chair (with Gary Downey) AAA meetings, Chicago, 18 November 1983.

1982 "Energy Policy Research." Co-organizer and co-chair (with Gary Downey) AAA meetings, Washington, D.C., December 1982.

1978 ["]Internal Category Structure." Organizer and chair of session given at the American Anthropological Association annual meetings, Los Angeles, 16 November 1978.

Conference Organizing Committees (Selected)

2008 Steering Committee, "National Summit on Energy Security 2008: Priorities for the Next President on Oil Dependence and Global Warming" 2020 Vision, 16 July 2008, Washington DC. 2008 AWEA Offshore Wind Workshop, Organized by the American Wind Energy Association, with support of the University of Delaware. Wilmington, DE, September 2008.

Conference Presentations and Invited Academic Lectures

Note: Most invited lectures at my home institution are omitted. On co-authored talks, Kemp-ton is presenter unless noted otherwise.

2022 "As offshore wind power bids reach market parity, how to design procurements?" Presented at Track 3: Design, optimization, and technoeconomic analysis, NAWEA/WindTech, Newark, DE, 21 Sept 2022.

2022 "Matching load to wind power". (with Alan K. Meier, LBL) Track 1: Grid Integration, NAWEA/WindTech, Newark, DE. 20 Sept 2022

2021 "Scaling up V2G: Policy, Standards, and Low-Cost Technology" Invited Speaker (with Sara Parkison), Energy Technologies Area (ETA) Seminar, Lawrence Berkeley National Laboratory, 22 July. (Similar seminar given for Voltus 12 July 2021.)

2021 "Straight Talk on Vehicle-to-Grid" Invited Speaker, Electrification 2021, Electric Power Research Institute. 9 June 2021.

2021 "10 Big Ideas in Energy" Plenary speaker, IAEE (International Association for Energy Economics) and AEE (Association des Economistes de l'Energie), 43rd annual conference. June 8-9, 2021.

2020 Kempton, Sara Parkison, and Theresa Christian, "Vehicle-to-Grid Technology in the PJM Footprint, and implications for Bringing small DER resources to wholesale markets." Invited presentation for Emerging Technologies Forum, PJM Interconnection. 1 October 2020.

2020 "GIV Technology and Policy Implications" (prepared with Sara Parkison), Invited Special Address, Global Smart Grid Federation (GSGF), Electromobility in Smart Grids: State of the art and challenging issues worldwide, 8 Sept 20, Paris, France (by videoconference).

2020 "Offshore Wind Potential for Delaware" Similar lectures presented to Delaware Nature Society (25 Feb 2020), and co-sponsored by League of Women Voters, Delaware Sierra Club, and Delaware Interfaith Power & Light (27 July 2020).

2020 "Enabling GIV Systems: Overview of Technology and Policy Implications" invited presentation for Vehicle-to-Grid: Right at Your Doorstep. Regulatory Assistance Project (RAP), 26 Aug 2020.

2020 "Impact of Changing Energy Resource Mix on the Power Grid" Invited presentation at National Academies of Science · Engineering · Medicine. Keck Center, Washington, DC, 27 April 20.

2020 "A \$70 Billion Opportunity for Offshore O&G Supply Chain Businesses in America's New Offshore Wind Power Market". (With Stephanie McClellan) invited Opening Plenary for "Offshore Wind Executive Summit, the parallels of wind, oil & gas" Co-located with "Topsides, Platforms & Hulls" and "The Deepwater Operations Conference & Exhibition", Galveston, TX, sponsored by National Ocean Industries Association (NOIA) and Offshore Magazine. 4 Feb 2020.

2019 "Grid Integrated Vehicle Fundamentals". Invited Plenary at: International Conference on Mobility Challenges, CentraleSupélec – Université Paris Saclay, December 5-6.

2019 "Integrating Electric Vehicles into the Grid as Storage Resources" Invited presentation and discussion, Boston University-Sloan Foundation Workshop: Integrating New Electric Mobility with the Electric Grid Infrastructure. Boston, 6-7 November 2019.

2019 "Offshore Wind Power for Delaware" Invited presentation at 2019 Environmental Summit, Organized by Delaware Audubon Society and Sierra Club of Delaware, held in Wilmington, DE, 25 Oct 2019.

2019 (Four lectures, on offshore wind and on V2G). Invited for Short Mediterranean Ph.D School on "Impacts of Climate Change and Sustainable Engineering Responses", Università degli Studi di Napoli Federico II (DICEA). 7th to 11st October, 2019.

2019 "Grid Integrated Vehicles for Grid Services." Invited keynote, Conference: EV and Renewable Energies Interactions at the Local Level, EVER2019 and l'Association Internationale des Economistes de l'energy (IAEE), Monaco Conference. May 2019. 2018 "Lessons Learned from V2G Demonstrations." Invited keynote, International Conference on Mobility Challenges, sponsored by Ecole CentralSupélec & Université Paris Saclay, Gif-sur-Yvette, France. 6 December 2018.

2018 "The Wrap-Up Presentation, end of 2nd day." Invited Keynote, "Vehicle-Grid Integration Summit: A Movement of Worldwide V2G Demonstrations." DTU Risø Campus, Roskilde, Denmark, 21-22 November 2018.

2018 "Dramatic Change for the US Offshore Wind Industry in 2018," Invited keynote, Delaware Energy Services Coalition, 5th Annual Energy Conference, Stanton, DE, 31 October 2018.

2018 "Port Opportunities for Offshore Wind Power Deployment" Workshop 4: Carbon free, circular: the port industry Next Generation. 16th World Conference Cities and Ports. Québec City, Québec, 11–14 June 2018.

2018 "Thirteen years of offshore wind power studies ... leading up to a 8,200 MW build" Inaugural Lecture by Willett Kempton, appointed Affiliated Professor at Danish Technical University. Kgs. Lyngby, Denmark, 28 May 2018.

2018 "Utilizing inherent storage in EVs to enable wide-scale variable generation" Plenary lecture, Rutgers Energy Institute (REI) Thirteenth Annual Energy Symposium. Rutgers Busch Campus, New Brunswick, NJ, 2 May 2018.

2018 Paper in Panel, "Industrializing Offshore Wind with In-Port Assembly", in Panel Session 2 at International Offshore Wind partnership Forum. Princeton, NJ, 4 April 2018.

2018 "Offshore Wind Power". (With Stephanie McClellan) Invited Webinar for Iowa State University — Wind Energy Science, Engineering and Policy Program, 22 April 2018.

2018 "Enabling Grid Integrated Vehicles and Services" Presented at Capture the Energy, 2018 Annual Conference, New York Battery and Energy Storage (NY-BEST), Albany, NY, March 14. 2018 "Future Deployment, with Lowest-Cost Design of Vessels and Ports" Broadcast as AWEA Webinar: US Offshore Installation Vessels & Ports, Now and in the Future. 2 February 2018. National signups from Wind industry.

2017 "Vehicle to Grids in the US: A review" Invited paper, Session 3, Electromobility: Challenging Issues. 5th International Conference of the Armand Peugeot Chair, co-organized with the Governance and Regulation chair and Vedecom Institute. Dauphine University, Paris, 14 December 2017.

2017 "Standardization and mass reassembly of offshore wind" SHINE Conference, Rocky Mountain Institute. Glen Cove, NY, 15 November 2017.

2017 "Industrializing Offshore Wind via On-shore assembly for mass production and one-piece deployment" Invited lecture, Wind Technology Center, National Renewable Energy Lab, Boulder, CO, 30 October 2017.

2017 "On-shore assembly for mass production and rapid deployment of offshore wind turbines" Invited Plenary lecture, International Conference Windfarms2017. Universidad Pontificia Comillas, Madrid, Spain, 31 May – 2 June 2017.

2017 "Getting Under 10¢ kWh" Invited panelist, US Offshore Wind 2017, Hauppauge, Long Island, 8-9 May 2017.

2017 "VGI visions for business: perspective and prospects", Presented in "Visions of Grid-Connected Vehicles" Session 164, Transportation Research Board, 96th Annual Meeting. January 2017, Washington, DC.

2016 "Operation Experience of VGI with V2G in Today's Markets" Invited for "VGI Stakeholder Call" Webinar (for CA Electric policy and utility representatives), hosted by Strategen Consulting, 31 October 2016.

2016 "Grid-Integrated Vehicle Implementation: Learnings and Looking Ahead", Invited lecture at Conference On The Impact Of Electric Vehicles On The Electricity System, Conference of the Chaire European Electricity Markets (CEEM) at the Université Paris-Dauphine. 17 October 2016. 2016 "Grid-Integrated Vehicle Implementation: Concept and experimentation" invited seminar at CentraleSupélec, Département Energie, Gif-sur-Yvette, France. 18 October 2016.

2016 "Wind characterization, and new OSW installation techniques." MRP workshop on Offshore Wind Energy Resource Characterization, Woods Hole Oceanographic Institution, Falmouth, MA, September 15-16th. 2016 "European GIV Projects", Invited Keynote, Nikola Project End Seminar, Risø DTU, Danish Technical University. 8 June 2016.

2016 "Operational experience of grid-integrated vehicles with V2G in three countries". Coauthors: W. Kempton, Scott Fisher, Scott Baker, Gregory Poilasne. Invited Keynote for Grid Integration of Electric Mobility, Berlin Germany, 31 May and 1 June 2016.

²⁰¹⁶ "Implementing Grid-Integrated Vehicles in Europe" Invited keynote address, Institute of International and European Affairs, Dublin, Ireland, 9 May 2016. (Note, previous speakers include: Steven Chu, US Sec of Energy; Maria van der Hoeven, Executive Director of IEA; Amory Lovins, RMI, and Rajendra Pauchari, Chair IPCC)

2016 "Climate, Air Quality, and Health Benefits of Offshore Wind Facilities in the Mid-Atlantic United States" Poster, with Jonathan Buonocore, Patrick Luckow, Jeremy Fisher, Willett Kemp-ton, and Jonathan Levy. Presented (by Buonocore) at Air Quality in Milan. Milan, Italy, 14–18 March 2016.

2016 "Cost of Offshore Wind Power in Massachusetts. Global cost reduction and scale: A pathway to grid parity in a decade" Invited plenary, U.S. Offshore Wind Leadership Conference 2016. Boston, MA. 29 Feb 2016.

2016 "Integration of large-scale wind with transmission and inherent storage." Invited presentation at Risø National Laboratory, Roskilde, Denmark, 17 Feb 2016

2015 "VtoG Early Commercial Operations in the US and Europe". Keynote presentation for "Electromobility: Challenging issues" Armand Peugeot Chair 3rd international conference, ESSEC Campus, Singapore, 4 Dec 2015.

2015 "Experience from operating an aggregator in PJM" Invited keynote for "Expert Workshop: 'V2X Flexibility Aggregation, BEMS and Bidirectional Chargers'", IEA Hybrid & Electric Vehicle Implementing Agreement, Task 28. Danish Standards Foundation, Nordhavn, Copenhagen, Denmark. 26 October 2015

2015 "A Cost Benefit Analysis of Electricity Generation" (poster, with Heather Thomson, presenter). North American Wind Energy Academy, Blacksburg, VA, 8 June 2015.

2015 "Reducing Costs for Offshore Wind" (With S. McClellan, D. Oscan, H. Tompson). Poster at EWEA Offshore Wind Conference, Copenhagen, DK. 10 March 2015

2015 "Saving Time and Money with Integrated Design and Policy" by invitation (sponsored) Greenpower 2015, Panel: Technical lessons from 20 years of EU experience... Boston, 25 Feb 2015

2014 "Electromobility", Lecture 1 at Centrale Supeléc, Paris, 12 Dec 2014. (Lecture sponsored by hosts.)

2014 "The Grid Integrated Vehicle" Lecture 2 at Centrale Supeléc, Paris, 15 Dec 2014. (Spon-sored lecture.)

2014 "Public policy toward GIVs for TSO Services: State of the art and future trends". Invited plenary, "Electromobility: Challenging Issues." Armand Peugeot Chaire, 2nd International Conference, Paris, 18 Dec 2104.

2014 "Electric Vehicles and V2G: Early commercial operations in Delaware." Workshop at The Mobility House, Munich, 19? November 2014.

2014 "V2G-Provided Regulation in PJM" (with Peter Bach Andersen) Presented at Nikola Project Half-way Seminar. DTU, Risø Campus, 27 November 2014.

2014 "An Integrated System Design to Lower Cost of OSW Energy Deployment in the Mid-Atlantic" Plenary panel, American Wind Energy Association, Offshore Wind Conference and Exhibition, 27? October 2014.

2014 "Running Society on Variable Generation: How Can We Optimize for High Reliability and Least Cost?" Johns Hopkins University, 6? Oct 2014, Baltimore MD.

2014 "Offshore Wind: Resources, Interconnection, Cost Reduction, and Potential Future Technologies" Seminar Series on Offshore Wind, University of Maryland, 24 Oct 2014

2014 "Grid-Integrated Vehicles: progress At U Delaware", (with Rodney McGee) Presentation at Department of Computer Science, KU Leuven, Belgum. 2 June 2014

2014 "Wind Power: Technology, Policy and Social-technical Movements". University of Wyoming, Dept of Anthropology's annual Mulloy Lecture. 30 April 2014. Laramie, WY.

2014 "System Design Optimized for a Large-Turbine Wind Farm near Wilmington Canyon" Presented to Delaware PSC. 21 April 2014.

2014 "Supporting EV Adoption via en-route Charging Stations in Delaware" (with Kathy Harris and Jean Brodeur) Presented by invitation to Wilmington Area Planning Commission, Newark, DE, 19? March 2014.

2014 "Grid-integrated electric vehicles—enough storage for large-scale variable generation" Invited lecture at, Pathways To Climate Solutions: Assessing Energy Technology And Policy Innovation, Aspen Global Change Institute and Energy Innovation. February 24–28, Aspen, CO 2013 "Commercial Trial of VtoG with a TSO -- PJM Interconnection" By invitation, Conference: "Electromobilty: Challenging issues". sponsor: Chaire Armand Peugeot. Paris, France. 19 Dec 2013.

2013 "Electric Vehicles and V2G" Invited keynote address to 250 transportation professionals and planners, 2013 Delaware Transportation Infrastructure Forum, 13 Nov 2013, U of Delaware. 2013 "Running Society on Variable Generation: How Can We Optimize for High Reliability and Least Cost?" Andlinger Highlight Seminar, 11 Nov 2013, Princeton University.

2013 "Providing Regulation Services with a Fleet of EVs" Presented at IEEE ISGT 2013 – Europe, Copenhagen, 8 October 2013. In Session: System services and electric transportation

2013 "Why not 99%? -- The opportunity in the PJM Market." Invited Presentation, Steering Committee Meeting, Energy Future Coalition, Washington DC, 22 May 2013.

2013 "Finding the Least-Cost Combinations of Wind, Solar, and Storage to Reliably Power the Grid" Presented at Climate Legacy Town Hall, Old Town Alexandria, VA, Invited by Sierra Club and Environment Virginia, 13 March 2013

2013 "Using Transmission and Storage to produce reliable electricity from Wind, Solar & Storage" Commonwealth Center for Coastal Physical Oceanography, 2013 Seminar Series. 25 Feb 2013, Old Dominion University, Norfolk, VA.

2013 "Achieving a Fossil-Free Tomorrow" Invited Lecture, University of Washington-St. Louis, 22 March 2013. (Sponsored by the Clinton Global Initiative.)

2012 "Danish Experience and US Potential for Offshore Wind Power". Symposium on Energy in the 21st Century. Syracuse, NY, 27 April 2012.

2012 "Is Electricity the New Fuel for Fleets?" Invited plenary, PHH Arval Telecommunications and Utility Fleet Conference, April 19, 2012, National Harbon, MD.

2012 "Vehicle-to-grid Energy Storage", Invited talk, 2012 National Electricity Forum, sponsored by DOE and NARUC, Washington DC (spring 2012?)

2012 "Overview of V2G Potential" Invited lecture, as part of "PEV V2G Workshop", California Plug-in Collaborative (state agencies and companies) at CallSO Headquarters, Folsom, CA, 11 April 2012.

2012 "Vehicles as Grid Storage" (invited lecture) Grid ComForum West 2012. San Diego, CA, 9 March 2012. (WK gave opening lecture, introducing a panel of V2G leaders.)

2012 "Synoptic scale vindkraft netværk" Invited Lecture, E-gruppen, Ingeniørforeningen i Danmark (Danish Engineering Society), Copenhagen, Denmark, 10 January.

2011 "Wind over coal: How civil society transformed energy policy in Delaware" Invited lecture, Energy Crossroads Denmark, Frederiksberg, Denmark, 5 December.

2011 "Meeting Denmark's Renewable Energy Goals with Offshore Wind and Storage in Electric Vehicles" (W. Kempton and Chresten Træholt) Poster, AWEA Offshore Wind Symposium and Exhibition, Baltimore, MD, October.

2011 "Software Requirements for V2G", Technical Session (invited talk), EOE EV Ancillary Services Working Session, Department of Defense, Electric Vehicle Working Group, 17 June 2011, Crystal City, VA.

2011 "Integrating a High Fraction of Offshore Wind into the Electric Grid" Invited lecture for
"Power Event", Danish Technical University, Center for Electric Technology, Lyngby, Denmark.
2011 "Offshore Wind: A transformative power resource for the Northeast Coastal States" SoMAS Friday Seminar, School of Marine and Atmospheric Sciences, Stony Brook University, SUNY.
11 Feb 2011

2011 "Overview: Offshore Wind" Good Jobs Green Jobs Conference, 9 Feb 2011, Washington DC.

2010 "EV as a Distributed Generator" Invited presentation to Maryland Public Service Commission Technical Conference on Electric Vehicles" 22 October 2010, Baltimore, MD.

2010 "Leveling Offshore Wind via Synoptic-Scale Transmission Interconnection" Presented in Technical/Scientific track, AWEA Offshore Wind Symposium and Exhibition, Atlantic City, NJ, October 2010.

2010 "Ocean Energy's Infrastructure, Regulatory, and Financing Needs" Invited Panelist, Capitol Hill Ocean Week 2010, organized by the National Marine Sanctuary Foundation. 10 June 2010.

2010 "Offshore Wind" Invited testimony, for Panel on OCS Energy, The National Academies, Committee On Earth Resources. Washington, DC, 12 May 2010.

2010 Exploring the formation of Electric Vehicle Coalitions for Vehicle-To-Grid Power Regulation, (with Kamboj, S., Decker, K., Trnka, K., Pearre, N., Kern, C., presented by Kamboj) 9th International Conference on Autonomous Agents and Multiagent Systems Workshop on Agent Technologies for Energy Systems. 10-14 May, Toronto, Canada.

2010 "Offshore Renewable Energy: Technological Advances, Prospects for Development, and Commercial Potential." (Invited speaker for this Session.) Global Oceans Conference 2010-- Policy, Science and Technical Symposium, 3 May 2010. UNESCO, Paris, France.

2010 "Plenary Panel: Strategic Planning and Financing for Mitigation Activities." Global Oceans Conference 2010--Policy Conference 6 May 2010. UNESCO, Paris, France.

2010 "The Grid Integrated Vehicle (title?)" Invited Panel speaker, EPRI/PJM Energy Storage Summit. 20 April, Valley Forge, PA.

2010 "Implementation of the Grid Integrated Vehicles, with Vehicle to Grid Power" Invited presentation for "EERE Analysis Seminar" at US DOE and webinar, sponsored by the office of Planning, Budget & Analysis, 17 March 2010.

2010 "Vehicle Integration and Manufacturing Issues" Briefing for panel, "The Role of Electricity as a Transportation Fuel", invited by Environmental and Energy Study Institute, Rayburn House Office Building, Washington DD, 15 March 2010.

2010 "2010 "" AAAS Annual Meeting, 18 February, San Diego, CA. (This symposium and the associated AAAS press conference on new V2G developments got worldwide press coverage.) 2009 "Energy's Endgame: Anthropology's Engagement with Energy/Climate/Culture Change" Presentation and discussion, AAA Annual Meeting, Phila, PA, Dec 4, 2009. Sponsored by Anthropology and Environment section.

2009 "Building Community Consensus for Climate Solutions, Based on Cognitive Ethnography" Invited presentation at Symposium "Making Cognitive approaches in environmental anthropology count: bridging findings to policy" Dec 5, AAA Annual Meeting, Phila, PA.

2009 "Public Processes Leading to an Offshore Wind PPA in Delaware" Invited plenary address, AWEA Offshore Wind Power Workshop, Boston, MA, 3 Dec 20009.

2009 "Green Growth and the Blue Economy" Invited (plenary) Lecture, 3rd International Symposium on EXPO 2012, Yeosu Korea. At Jeju, Korea, 19 November 2009.

2009 "Tapping the Northeast's Large-scale Carbon-free Power Resource" Invited lunch speaker. The Ecology of Marine Wind Farms, 8th Annual Ronald C. Baird Sea Grant Science Symposium. Newport, RI, 3 Nov 2009

2009 "Plugging Electric Vehicles into PJM for Ancillary Services" MACRUC 2009 (Mid-Atlantic Conference of Regulatory Utilities Commissioners) 22 June 2009 (similar presentation before Delaware PSC, 7 July 2009)

2009 "Dispatching Electric Vehicles to Provide Regulating Power and Reserves" Invited keynote to JIEEC 2009 Jornadas Internacionales de Equipos Eléctricos, International Electrical Equipment Conference, Bilbao, Spain, 25 & 26 May 2009. Also, invited presentation to ENDESA Advanced Business Strategies Dept, other ENDESA managers, and Technalia staff, Madrid, Spain, 27 May 2009.

2009 "Offshore Wind Working Group R&D Priorities". Invited presentation for the Research and Development Committee, American Wind Energy Association, 6 May 2009, Chicago, IL.

2009 "Will the Concept of V2G Help Electric Cars Penetrate the Auto Market?" (Michael Hidrue, Jon Lilley, Meryl P. Gardner, Willett Kempton, and George R. Parsons), Presented in Session 5.2, Environment and Sustainability Track. Academy of Marketing Science 2009 Annual Conference, May 21, 2009, Baltimore, MD.

2009 "Vehicle to Grid" Presentation for ISO-New England, Massachusetts, 25 Mar 2009. 2009 "Panel on Oceans Enhancing Energy Security" Public Policy Forum, invited by Consortium for Ocean Leadership, US Capitol Visitor Center, 5 March 2009.

2009 "Plug-in vehicles for Leveling Wind and Solar Power" Invited presentation for "Energy 2009", Hall Institute for Public Policy, Trenton, NJ, 25 February 2009.

2009 "Demonstration of MAGICC's Vehicle to Grid" PHEV Executive Summit. Jointly sponsored by PJM Interconnect and Electric Power Research Institute. 26 Jan 2009.

2009 "Grid Integration of Large Fluctuating Power Generation with Plug-in Vehicles" Joint CDMC/CEIC Seminar, Carnegie Mellon University, Pittsburgh, 4 Feb 2009.

2009 "Integrating Electric Vehicles into a Smarter Electric Grid", New England Electric Restructuring Roundtable. Boston Massachusetts. 13 Feb 2008. (Broader Scope talk at MIT Energy Club the prior evening.)

2009 "Most of what Analysts tell you about renewable energy is wrong." Public Lecture at University of Colorado, Feb 19th.

2008 "Rapid Emergence of an Offshore Wind Industry in the United States" Renewable and Appropriate Energy Laboratory, UC Berkeley, 5 Nov 2008. Talk by same title, Stanford University, Stanford, CA, 6 November 2008.

2008 "Additional Value and Revenue Streams", invited presentation for "California Electric Fuel Implementation Strategies" Nov. 12th, hosted by UC Berkeley Transportation Sustainability Research Center, for Cal Energy Commission and California PUC. Berkeley, CA. Nov 12, 2008. [Kempton's presentation won the conference award for most innovative and thought-provoking] 2008 "Progression Toward EVs." Invited speaker, Plug-in 2008 Conference, 22–24 July, San Iosé. CA.

2008 "The Delaware Offshore Wind Project" (with R. Thomas Amis) Presentation for "National Summit on Energy Security 2008: Priorities for the Next President on Oil Dependence and Global Warming" at Reserve Officers Association, 16 July 2008.

2008 "Vehicle to Grid Power" Invited for discussion of The Pentagon Parking-lot Project, June 10, Washington, DC. Invited by Lenny Siegel.

2008 "Power flow control and monitoring by the grid operator" Electric & Plug in Hybrid Vehicles, London Business Conferences, Detroit, MI, 29 May 2008.

2008 "Offshore Wind Power" Panel talk at "University of Delaware Forum--Charting our Path to Prominence", May 10, 2008. (Invited by President Patrick A. Harker.)

2008 "Vehicle to Grid Technology" invited talk at 2008 National Council on Electricity Policy Annual Meeting "Climate Challenges and the Future of the Electricity Industry", April 14th,

2008, Hall of States, Washington DC. (Invited by Jeane Fox, President, NJ BPU.)

2008 "Cool Cars and Green Grid" Invited lecture in "Cool Cars, Green Grid: Plugging Vehicles into Renewable Electricity to Reduce Oil Dependence & Climate Change" Washington International Renewable Energy conference, Official Side Event organized by 2020 Vision. Washington, DE, 4 Mar 2008.

2008 "Vehicle to Grid Power" presented at Official Side Event organized by PJM Interconnect and University of Delaware, WIREC (above), 6 March 2008.

2007 "Valuing Public Preferences in Delaware, USA" (authors: Jeremy Firestone, Andrew Krueger, Willett Kempton and George Parsons). Presented at Berlin Offshore Wind Conference, Berlin. November 2007

2007 "Fostering Technological Innovation: Stimulating and Exploiting the Coming Disruptive Energy Technologies", presented at "Reaching Our Targets: Innovative Global Warming Solutions for New Jersey." Rutgers University and New Jersey Sutstainable State Institute, New Brunswick, NJ, 29 October.

2007 "Offshore Wind Power for Delaware and for the United States" Coastal Connection lecture series, Virden Center, 7 October (Coast Day). 2007 "Offshore Wind Energy", Invited after-dinner Keynote, MIT Club of the Delaware Valley (at DuPont Country Club), 26 Sept 2007.

2007 "Tutorial on V2G". At Institute of Electrical and Electronics Engineers Conference, "Plugin Hybrids: Accelerating Progress". Omni Shoreham Hotel, Washington, DE, 19 Sept 2007. 2007 "Greening the Grid" Invited talk at "National Summit on Energy Security" National Security and America's Carbon Addiction" Solutions to Oil Dependence and Climate Change. Invited by 2020 Vision, held at National Press Club, Washington, DC, 12 July 2007. [Note: this was a high-level conference, other speakers with Kempton included Sen. Dick Lugar, Sen Barbara Boxer, Sen. Amy Klobuchar, Ex-CIA Director James Woolsey, and ex-DoE Undersecretary Dan Reicher.)

2007 "Vehicles to Power Grid" Invited Lecture, Woods Institute for the Environment, Energy Seminar, Stanford University. 30 May 2007,

2007 "Wind Energy Offshore: Resources, Policy, and the Path Forward" Keynote address, Alumni Career Celebration. After-dinner address for UD Mechanical Engineering Department, students, and Alumni, Clayton Hall, 27 April 2007.

2007 "Offshore Wind in the Middle Atlantic". Invited plenary lecture for "From Local to Global" The Rhode Island Model for Harnessing Wind Power Worldwide. University of Rhode Island, Bay Campus. 19 April 2007

2007 "Offshore Wind Policy and Resources" Invited lecture for the "Chemical Veterans" at Dupont, presentation for ChemVets Association, 20 Mar 2007

2007 "Delmarva's Offshore Wind Resources" Invited talk for Energy Film Festival and Lecture Series, Salisbury University, 22 Mar 2007.

2007 "Offshore Wind for Delaware", Land and Sea Lecture, Georgetown, 9 Mar 2007 2007 "Making Electricity from the Weather", Invited keynote for Delaware/Philadelphia Chapter, American Meteorology Society, 20 Feb 2007

2006 "Modeling V2G for a Utility with a High Wind Generation Portfolio" (with Cliff Murley, Sacramento Municipal Utilities District). Invited presentation, ZEV Technology Symposium, California EAP, Sacramento CA, 26 Sep 2006.

2006 "Redesigning the energy system based on geophysical resources and the timing of CO2induced tipping points" Joint seminar with Department of Engineering and Public Policy, Electricity Industry Center, and Climate Decision Making Center, Carnegie Mellon University. 6 June 2006.

2006 "Public Opinion about Large Offshore Wind Power: Underlying Factors" (J. Firestone, lead author and presenter) Presented in session "Public Acceptance: A Prerequisite for Long-Term Industry Success" at WINDPOWER 2006 Conference and Exhibition, AWEA, Pittsburgh, June 06, 2006.

2006 "Public Acceptance Strategies for Offshore Wind" Building a Credible Offshore Wind Strategy. WINDPOWER 2006 Conference and Exhibition, American Wind Energy Association presented June 7th in Pittsburgh.

2006 "Disruptive Energy Technologies of the 21st Century." Seminar and discussion with CU Energy Initiative. University of Colorado. 15 May 2006

2006 "Preventing Climate Catastrophe: How, When and How Much to Cut CO2?" Public talk at Chautauqua Community House, Boulder, CO, sponsored by Center of the American West, U of Colorado, 15 May 2006.

2006 "Overview of work at the University of Delaware, College of Marine Studies" (with Amardeep Dhanju) presented at Offshore wind Researchers Meeting, 12 April, Massachusetts Institute of Technology, Laboratory for Energy & the Environment (LFEE), Cambridge, MA.

2006 "Plug-in Hybrid and Battery Electric Vehicle Grid Integration with Renewables" Invited lecture in Plenary session: High Wind Penetration Implications, Annual Meeting, Utility Wind In-tegration Group, Washington, DC April 6-7.

2006 "Wiring the Vehicle Fleet" Sustainable Futures Institute Brown Bag, Michigan Technological University. 17 March 2006, Houghton, MI. 2006 "Why Climate Change Leads to Wind Power." Sponsored by School of Forest Resources and Environmental Science & Graduate Program in Environmental Science, Michigan Technological University. 16 March 2006, Houghton, MI.

2006 Vehicle to Grid Power. Seminar at Argonne National Laboratory, Chicago, 15 March 2006.

2006 "Delaware Proposal" Co-presenter with 4 government and industry representatives, for GM Strategic Initiatives (~8 GM divisions in attendance). GM World Headquarters, Detroit, MI 30 Jan 2006

2006 "How Behavioral, Physical and Engineering Research Leads to a Redesign of our Power Infrastructure" Invited presentation at: National Council for Science and the Environment, Washington, DC. 27 January 2006

²⁰⁰⁵ "Using Electric Vehicles for Grid-Connected Storage" (presented by J. Tomic, lead author), Invited presentation to Nanotechnology and Energy: Electricity Transmission, Storage and the Grid, at the James A. Baker III Institute for Public Policy, Rice University, 15 Nov 2005.

2005 "Using electric vehicles as backup for large offshore wind power" (with Amardeep Dhanju) poster presentation, and proceedings paper, "2005 Copenhagen OffshoreWind", Copenhagen, Denmark, 26-28 October 2005.

2005 "Vehicle to Grid and Wind Power" Seminar at Risø National Laboratory, 24 October 2005.

2005 "Vehicle to Grid and Wind Power", Seminar at Instituut voor Milieuvaagstukken, Vrije Universiteit--Amsterdam, 31 October 2005

2005 "Vehicle to Grid and Wind Power" (W. Kempton) and "Factors Underlying Public Opinion about Offshore Wind Power Development in Nantucket Sound" (J. Firestone and W. Kempton), Two invited lectures, both at ECN Wind Energy, Amsterdam office, 2 Nov 2005.

2005 "Forestalling Catastrophic Climate Change: Our Generation's Task", Fall Seminar Series, Environmental Science & Policy, George Mason University, 11 October, Fairfax, VA.

""V2G: The Value of Plug-In Cars to the Electric Grid" NREL, Golden, 5 Oct 05
"Offshore Wind on the US Eastern Seaboard: Resource Estimates and Public Reaction"
(also, separate talk, same location, same day:) "V2G As Storage for Large-Scale Wind Power"
National Wind Technology Center, NREL, Golden

2005 "Vehicle to grid power" Energy Analysis Seminar, Energy Analysis Office, National Renewable Energy Lab (NREL), US Dept of Energy, Washington, DC

2005 "Designing the Automobile of the 21st Century", at V2G Technical Symposium, Seattle WA, 6 June.

2005 "Vehicle to Grid Power" at V2G Forum, Seattle, WA, 7 June.

2005 "Vehicle to Grid Power" Seminar for Energy Group, Princeton Environmental Institute, Princeton University, 26 May 2005.

2005 "Vehicle-to-grid power" (Special Seminar, UD Dept of Mechanical Engineering), 12 May 2005.

2005 "Vehicle-to-Grid power in Australia" Presentation in Canberra for Department of Industry, Tourism and Resources, and presentation plus technical briefing in Sydney for officers and staff of New South Wales state Greenhouse Office and staff of other NSW agencies. January 2005.

2005 "Vehicle to Grid Power in the United Kingdom" talk at Imperial College--London, Environmental policy and management group, January 2005.

2004 "Explaining Opposition to, and Support for, Offshore Wind Power" poster presentation at Global Windpower 20024 Conference and Exhibition (WK presenter, co-authors J. Firestone, Andy Krueger, Jon Lilley, Philip Whitaker). Chicago, IL, 28-31 March 2004.

2004 "American Cultural Models of Climate and Energy Policy" Invited Roundtable, Climate Policy Center, Washington: DC. 13 Feb 2004.

2003 "Public Debate on Offshore Wind". Roundtable on Ocean Policy. Washington, DC: Environmental Defense, 17 Oct 2003. 2003 "More than Transportation: Using Electric-drive Vehicles for Grid Support" (J. Tomic and W. Kempton) The 20th International Electric Vehicle Symposium and Exposition, EVS-20. Long Beach, CA. 15-19 Nov 2003.

2003 "How Does the Public Understand Climate Change Risk and Mitigation?" presented at MIT Global Change Forum XXI, "Climate Uncertainty, Long-Term Goals, and Current Mitigation Effort". Cambridge, MA, 8-10 October 2003.

2003 "Moving from Environmental Values to Environmental Identity". Lecture for Graduate Program in Environmental Studies, Antioch New England Graduate School. June.

2002 "Alternative Theories of Environmental Action" Presentation at Conservation Psychology Conference, Brookfield Zoo, Brookfield, IL, 10–12 May 2002.

2001d "Anthropologist's Research Proposal" Invited presentation at "Understanding Public Values and Attitudes Related to Ecological Risk Management", Workshop organized by US EPA Science Advisory Board. Washington, DC, 23-24 May

2001c "A Cross-Cultural Perspective on Consumption and the Environment." Invited seminar at Lawrence Berkeley Laboratory, Berkeley, CA. 30 April 2001.

2001b "Electric-Drive Vehicles: A Source of Power and Reliability to the California Electric Grid" Multi-agency technical seminar, hosted by California Air Resource Board, CalEPA Headquarters, Coastal Hearing Room. Sacramento, 27 April 2001.

2001a "Electric Drive Vehicles: A Multi-Terawatt Storage and Generation Resource for the Electric Grid." Invited lecture, Institute for Transportation Studies, U of California, Davis. 26 April. (Similar lecture given 30 April, sponsored jointly by Energy and Resources Group, U California, Berkeley, and Environmental Energy Technologies Division Seminar, LBL.)

2000c "Environmental Values in American Culture". Invited lecture in series "Environmental Values Seminar", School of Natural Resources and Environment, University of Michigan, Ann Arbor, 13 October 2000.

2000b "Reformulations, Identity and Action In The US Environmental Movement." Presented (by D. Holland, unnamed co-author) at session "Meaning, Subjects and Networks: Environmental Social Movements and the Anthropology of Activism,", AAA meetings, San Francisco, 16 Nov 2000.

2000a "Twenty years of energy demand management: we know more about individual behavior but how much do we really know about demand?" (Harold Wilhite, Elizabeth Shove, Loren Lutzenhiser, and Kempton), 2000 ACEEE Summer Study on Energy–Efficiency in Buildings, Asilomar, CA, August 2000. A version was also presented in response torequest from IPCC Expert Meeting, Conceptual Frameworks for Mitigation Assessment from the Perspective of Social Science, 21–22 March 2000. Karlsruhe, Germany.

1999a "Cultural Models of Pfiesteria" (Kempton and James Falk), presented at symposium "Cultural Constructions of Environmental Problems: The Case of Pfiesteria Piscicida", a panel at the Society for Applied Anthropology meetings, Tucson, AZ, 23 April 1999 (presented by Anna White)

1999b "Electric Vehicle Value if Integrated with the Utility System" (W. Kempton and Steven E. Letendre), presented at Transportation Research Board, Washington DC, 11 Jan 1999.

1999c "Theories of Civic Action at The Levels of Group Structures, Personal Identities, and Life Histories" (unnamed co-author, Dorothy Holland). Presented at 1999 AAA meetings, Chicago, IL, November 1999.

1999d "Environmental Activism: Identities Among Groups." (Anne Kitchell, Willett Kempton and Danielle Tesch) Presented by Kitchell at 1999 AAA meetings, Chicago, IL, November 1999. 1998a "Mobile Power for Utilities". Invited presentation on my published research by chair of Transportation Research Board's Alternative Fuels Committee, Washington, DC, 13 January 1998.

1998b "Evaluating the Pollution Prevention from Energy Star Billing." California Energy Commission, 23 June, Sacramento CA.

1998c "Environmental Values". Invited presentation for conference, "Wild Thinking for the 21st Century", June 24–27, sponsored by the Foundation for Deep Ecology, San Francisco.

1998d "Comparison Groups as a tool for evaluating energy efficiency programs." (authors: Maithili Iyer, W. Kempton and Christopher Payne; presented by Iyer) ACEEE Summer Study, 23-29 August 1998.

1998e "Local Environmental Groups in Mexico and the United States--Bringing Coastal Management to the Community." (authors K. Bunting-Howarth and W. Kempton; presented by Bunting-Howarth) presented at Coastal Zone Canada 1998, Victoria, BC, 30 Aug – 4 Sept 1998. 1997a "Environmental Values in American Culture" keynote speech for conference, Environmental Management in the Nineties, organized by US EPA and Western Center for Environmental Decision-Making, San Antonio, TX, 26 January 1997.

1997b "Identity and Environmental Action: An anthropological study of environmentalism in America" (with Dorothy Holland), Institute for Philosophy and Public Policy, School of Public Affairs, University of Maryland, 26 March 1997.

1997c "Consumer Behavior and Enhanced Bill Information." Invited speaker for plenary session, National Conference on Environmental Strategies in a Restructured Electric Industry, National Association of Regulatory Utility Commissioners. Houston, TX, 7 April 1997.

1997d "Cultural Models of the Environment" Invited speaker for university lecture plus two class sessions, Carelton College, Northfield, MN, 8 – 10 May.

1997e "Cultural Models and Environmental Politics." Invited speaker for School of Environmental Science, Engineering and Policy, Drexell University, Philadelphia, 7 Nov 1997.

1996a "Citizens' Perceptions of Global Warming." Invitational Seminar, College of Marine Studies, Hugh Sharp Campus, 27 Feb.

1996b "Global Environmentalism: A Challenge to the Postmaterialist Thesis." Seminar, Student International Discussions Group. Nicholas School of the Environment, Duke Univeristy, 3 March. 1996c "Voters care about the environment, so why don't they do more about it?" Invited Lecture, Sanford Institute of Public Policy, Duke University, 4 March.

1996d "American Environmental Values." Two-hour invited lecture on American environmental beliefs and values, US Environmental Protection Agency (all Washington DC staff invited),26 March. Videotaped for distribution to 11 EPA Regional offices. Afternoon briefing of senior EPA management, Office of Policy, Planning and Evaluation.

1996e "Identities and Worlds of Environmental Action" (D. Holland and W. Kempton) conference presentation, Society for Applied Anthropology annual meetings, Baltimore, 29 March.

1996f "Why the Solar Photovoltaic System is not Working: National Programs and Local Realities in India" (T. Kumar and W. Kempton) conference presentation, Society for Applied Anthropology annual meetings, Baltimore, 29 March.

1996g-j "Cultural Models of the Environment" Nearly-identical seminars given at Center for Environmental Strategy, University of Surry (16 May), Environmental Change Unit, Oxford University (19 May), Committee for Interdisciplinary Environmental Studies and Global Security Programme, University of Cambridge (21 May) and Department of Environmental & Energy Systems Studies, Lund University (22 May). Travel paid by Norwegan Research Council, University of Cambridge, and Oxford University.

1996k "Cultural Models of the Environment" Invited presentation for workshop: Efficient energy use and sustainable consumption in households: Research challenges and creative policy incentives. Norwegian Research Council, Oslo (23 May). In proceedings, Hans Otto Haaland (Ed), 1996, Nytenkning omkring effektiv energibruk og bærekraftig forbruk i husholdninger: mot en helhetlig teori og kreative tiltak. Oslo: Norges forskningsråd.

1996 "Cultural Models of the Environment" Invited lunch presentation for officers and staff, Defenders of Wildlife, Washington, DC.

1996m "Public Communications on Climate Change" Invited presentation at EPA workshop on Climate Communications.

1996n "Citizens, Scientists and Climate Change" Center for the Study of Global Change, Lancaster University. 16 July 1996.

19960 "Introductory Paper on Transport System/Mode Choice: Human-powered Vehicles (HPVs) as Multiple-Level 'Choice'". Invited plenary presentation, "Choice, Culture and Technology" OECD Workshop 17-19 July, Brighton, UK. 1996p "Citizens, Scientists and Climate Change: Long-term Values versus Short-term Modeling" Invited presentation for "Climate Change: Cataclysmic Risk and Fairness" International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria, 20-22 July.

1996q "Information and Telecommunication Technologies: The Next Generation of Residential DSM and Beyond." (Goldman, Kempton, Eide, Iyer, Farber and Scheer), ACEEE Summer Study, Asilomar, CA. August. Manuscript 15+5 pp.

1996r "Energy Star Billing: A Tool for Improving Customer Relationships in a Restructured Utility Environment" (A. Eide, D. Lord, and W. Kempton), ACEEE Summer Study, Asilomar, CA. August. Manuscript 11 pp.

1996s "Energy Star Billing: Innovative Billing Options for the Residential Sector." (D. Lord, W. Kempton, S. Rashkin, A. Wilson, E. Egan, A. Eide, M. Iyer, and C. Payne), ACEEE Summer Study, Asilomar, CA. August. Manuscript XX pp.

1996t "Science and Environmental Action: Fishermen, Lobbyists and Congressional Staff" (Priscilla Weeks and W. Kempton) Invited for session: Public Cultures of Science, AAA Annual Meetings, San Francisco, 20 November.

1996u "Cognitive Anthropology and the Environment" Invited for session: Human Dimensions of Environmental Change (sponsored by Anthropology and Environment Section), AAA Annual Meetings, San Francisco, 22 November.

1995a "Environmental Values: Implications for U.S. Energy and Environmental Policy" Invited talk at LBL Energy and Environment Breakfast Seminar, 24 May, Washington, DC.

1995b "The Influence of cultural models and values on perceptions of global warming." Invited talk at conference, Human Dimensions of Global Environmental Change, Duke University, Durham, NC. 1 – 3 June.

1995c "Environmental Values" 1995 Boardman Lecture, University of Central Florida, 5 June. 1995d "Voters care about the environment. So why don't they support good environmental policies?". Presented at Decision Processes luncheon, Sloan School of Management, Univ of Pennsylvania. 23 Oct 1995.

1995d "American Beliefs and Values Regarding Global Warming" Invited talk for Environmental and Societal Impacts Group, National Center for Atmospheric Research, Boulder, Colorado, 28 July.

1995e "Innovations in Customer Billing for Energy Efficiency" Invited presentation for workshop: New approaches, potential conflicts, and possible opportunities for achieving greater efficiency in energy utilities. Jyukanko Research Institute, Tokyo, Japan, 16 October 1995.

1995e "Cultural Determinants of Consumption" (with Chris Payne). Presented at Workshop on Global Environmental Impacts of U. S. Consumption, National Academy of Sciences/National Research Council, Nov 9, 1995, Washington DC.

1995f "Environmental Values in American Culture: A voter perspective." Department of Geography Seminar, University of Delaware, 8 December.

1994a "Greenhouse Research: Are our priorities misplaced?" Invited speaker, faculty and student colloquium, Energy and Resources Group, University of California, Berkeley, 26 January. 1994b "Are Current Research Agendas Mismatched to the Problem of Global Warming?" Talk (and seminar sessions), School of Natural Resources and the Environment, University of Michigan, 31 January, Ann Arbor, MI.

1994c "Expressing Environmental Effects of Energy Behaviors" Workshop organizer and presenter (with Craig Kuennen and Rana Belshe), Affordable Comfort Conference, Philadelphia, PA, 24 March 1994.

1994d "Social, Behavioral and Political Factors in Energy Efficiency." Invited presentation for Electric Power Research Institute Forum: "Energy Efficiency: How Far, How Fast?", San Jose, CA, 3 – 5 Aug 1994.

1994e "How Will Competition Change the Utility Bill?" (with Alan Meier and Merrilee Harrigan) Informal Session at ACEEE Summer Study, 1 Sep 1994.

1994f "Expanding the Human Dimensions Research Agenda" (with Lee Schipper). Presented at ACEEE Summer Study, 2 Sep 1994. In Proceedings, pp 1.85 – 1.90.

1994g "Cultural Models of the Environment" Invited for symposium, "Measuring and Expanding Public Knowledge about the Environment" AAA Meetings, Atlanta, 4 Dec 1994.

1993a Lecture on behavioral aspects of electrical energy use for "Swarthmore and the Biosphere" (special senior course). Swarthmore College, 24 March 1993.

1993b "Global Environmentalism: A challenge to the postmaterialism thesis?" (written with S. Brechin, presented by Kempton). Invited paper presented at International Society for Political Psychology, 10 July 1993, Cambridge, MA. Also presented by S. Brechin at the 63rd annual meeting of the Eastern Sociological Society, 26 March, Boston.

1993c "Will public environmental concern lead to action on global warming?" Brown-bag lecture, Center for Energy & Environmental Studies, Princeton University. 4 Oct 93

1993d "Global Climate Change" Panel discussion for session, "The Society, Technology, Environment Interface: Science, public involvement and the decision-making process." AAA meetings, 20 November 1993.

1993e "Lay and Academic Theories of Science, Technology and the Environment." presentation for the Committee on the Anthropology of Science, Technology and Computing. (Meeting prior to AAA meetings.) Washington, DC, 16 & 17 November.

1993f "Electric cars and fuel-cell cars: Why would anyone buy them?" Invited speaker, NSF/ DOE Fuel Cell/Electric Automobile Workshop, Washington, DC, 14 December.

1992a "Barriers to lifestyle change: The energy dimension." Invited seminar organized by Division of Scientific Research, New Jersey Dept of Environmental Protection and Energy, Trenton, NJ. 27 May 1992

1992b "The Anthropology of Comfort" E-Source Members Forum, Aspen, CO, 30 September 1992.

1992c "Forstalling Global Climate Change: A European Balancing Act." (W. Kempton and P. Craig) Presented at AAA Meetings, San Francisco, Dec 1992.

1992d Commentator on John Lucy, Color Category Conference. NSF-sponsored conference organized by Larry Hardin, Syracuse Univ. Asilomar, CA, 25 – 28 October 1992.

1991a "Cognition and Cultural Values Regarding Global Climate Change". Engineering and Public Policy Program, Carnegie Mellon University, 10 May 1991.

1991b "Will Public Environmental Concerns Motivate Greater Consumer Energy Efficiency?". Invited paper for IIASA Workshop: Social Behavior, Lifestyles and Energy Use, International Institute for Applied Systems Analysis, Laxenburg, Austria, 24–26 June.

1991c "Making Decisions and Taking Positions on Global Climate Change". Presented at Society for Social Studies of Science, Cambridge, MA, 16 November 1991.

1991d "Anthropology Keeps Engineering in Touch with Reality". Presented at session, Anthropology and Engineering, AAA meetings, Chicago, IL, 24 November 1991.

1990a "Waste Not, Want Not? The Potential of Energy Conservation." Lecture Sponsored by The Technology and Culture Seminar and The MIT Energy Lab, Cambridge, 13 February 1990. 1990b "Lay Perspectives on Global Change". Seminar at MIT Sloan School, 13 February 1990. 1990c "Feedback and Reenforcement: Tools and Techniques" (with Meg Fels and Larry

Kinney). Affordable Comfort, 1 March 1990, Philadelphia, PA.

1990d American Lay Conceptions of Global Warming. ACE³ Summer Study, Environment Panel (August 1990). Similar papers presented at "Methodological Issues in Global Modelling",

UNAM/ISSC/UNN Workshop, Universidad Nacional Autónoma de México, Mexico City (November 1990) and at Educational Testing Service-Princeton Colloquium (6 December 1990).

1989 Residential Direct Load Control: Comfort Effects and Predictors of Load Savings" (with C. Reynolds and D. Hull) 1989 Energy Program Evaluation Conference, Chicago.

1988a "Folk Models of Air Conditioning and Heating Systems". Presented at AAAS, Boston, 14 February 1988.

1988b "Peak Power Demand in an Apartment Building: A Case Study of Air Conditioner Use". With A. McGarity and D. Feuermann (presenter). Energy 88: 2nd International Congress, Tiberias, Israel, 7 June 1988. 1988c "Improved Utility Bills: A Tool For Energy Conservation" (with Alan Meier and Margaret Fels). Informal Workshop at ACEEE Summer Study, Asilomar, CA, 31 August 1988.

1988d "Fuzzy Set Theory Meets Human Categorization Data". Colloquium for Cognitive Science Program, Lehigh University, 28 October 1988.

1988e "An Annual Bill Supplement to Improve the Household Consumer's Information Environment." Lecture to Feedback Information Seminar (for Nordic utilities, government, and academics) sponsored by Nordisk Ministerrad and Oslo Lysverker, Oslo, Norway, 3 November 88. Related lecture at Oslo Lysverker, 4 November 88.

1987a "Providing Weather-Corrected Consumption Data to Consumers", Affordable Comfort Conference, Pittsburgh, 4 March 1987.

1987b "Software for Understanding How a Computer Program Works", CEES Tuesday Seminar, Princeton University, March 1987.

1987c "Folk Theories of Home Heat Control", Sloan New Liberal Arts Lecture, Lafayette College, April 1987.

1987d "Ethnography as a Tool for Interpreting Metered Energy Data", Keynote address at Conference on Energy Conservation Program Evaluation, Chicago, 19 August 1987.

1987e "Anthropology and U.S. Energy Policy". Lecture sponsored by AnthropologyDepartment, Connecticut College, New London, 3 December 1987.

1986a "A Visible and Interactive Programming Environment for Standard Pascal: Cognitive and Computational Issues." presented at Visual Aids in Programming, an interdisciplinary workshop in Informatics and Psychology organized by Oesterreichische Computergesellschaft and German Chapter of the Association for Computing Machinery, 20–23 May, Schärding, Austria.

1986b "Heating a Multifamily Building: Tenant Perceptions and Behavior" (Coauthor and presenter, John M. DeCicco). Presented at 1986 Summer Study on Energy Efficiency in Buildings, ACEEE.

1986c "Homeowner's Models of the Heating System and Heat Loss: Effects on Home Energy Management" 1986 Summer Study on Energy Efficiency in Buildings, ACEEE.

1986d "A Visible Environment to Facilitate Comprehension of Program Execution", Lecture for program in Education in Science, Technology, and Mathematics, University of California, Berke-ley, 26 August 1986.

1986e "Ventilation, Air Infiltration, and Building Occupant Behavior" (coauthor and presenter, D. T. Harrje) 7th Air Infiltration Conference, Stratford-upon-Avon, UK, 29 Sep – 2 Oct 1986. Published in proceedings, pp 2.1 – 2.16, IEA, Annex V.

1986f "Anthropology of Home Energy Use". CEES Seminar, 25 March 1986.

1985a "Social Aspects of Household Energy Management" Energy Division Seminar, Oak Ridge National Labs, 4 February 1985.

1985b Discussion of behavioral issues in residential energy conservation Agence Française pour la Maîtrise de l'Énergie, Paris, 9 April 1985.

1985c La gestion de l'Énergie thermique dans l'habitat individuel. Presented at la Maîtrise de l'Énergie et les Consummateurs, Second International Conference. Versailles, France, 14April 1985.

1985d "Categorías Ethnosemánticas de la Alfarería Usadas en Tlaxcala." Primer Simposio Internacional de Investigaciones Socio-históricas sobre Tlaxcala. 18 October 1985, Tlaxcala, México. 1985e "Mental Models of Thermostatic Devices: An Ethnographic Approach." Princeton University Committee for Cognitive Studies, 1985-86 Speaker Series. 25 November 1985.

1985f "Intracultural Variation:Effects of Practical Constraints and Prestige".Symposium on Intracultural Variation, AAA meetings, Washington, DC, 7 December 1985.

1984a "Thermostat Management: Intensive Interviewing Used to Interpret Instrumentation Data" (with Shirlee Krabacher). ACEEE Summer Study. 14-22 August 1984.

1984b "Residential Hot Water: A Behaviorally-Driven System." ACEEE Summer Study. 14-22 August 1984.

1984c "Patterns of Household Energy Use: Data from Metering and Interviews." Colloquium, Energy and Resources Group, U.C.Berkeley. 5 September 1984.

1984d "Household Thermostat Management: Reported Schedules and Observed Behavior." (with Shirlee Krabacher) AAA Meetings, Denver, CO. 17 November 1984.

1983a "What is the Sapir-Whorf Hypothesis?" (Coauthor and copresenter, Paul Kay). Anthropology Faculty Colloquium, U.C.Berkeley, 24 January 1983.

1983b "Folk Theories of Home Heating Systems." Colloquium, School of Social Sciences, U.C.Irvine. 3 May 1983.

1983c "How do People Think Their Heating System Works?" Princeton University Center for Energy and Environmental Studies. 11 May 1983.

1983d "Two Theories Used for Home Heat Control." Conference on Folk Models, Institute for Advanced Study, Princeton, NJ. 12–15 May 1983. Related talks given at Families and Energy Conference, 9–11 October 1983, AAA meetings, Chicago, 18 November 1983, Bolt Beranek and Newman, Cambridge MA, 9 January 1984, and Intelligent Systems Laboratory, Xerox Palo Alto Research Center, 21 March 1984.

1983e "An Instrument Package for Measuring Household Energy Management." (With Jeffrey S.Weihl and David DuPage.) Families and Energy Conference, East Lansing, MI, 11 October 1983. Published in Morrison and Kempton 1984, pp 629– 642.

1982a "Do Consumers Know `What Works' in Energy Conservation?" (with C.K.Harris, J.G.Keith, and J.S.Weihl) Presented at "What Works?Documenting the Results of Energy Conservation in Buildings." U.C.Santa Cruz, 23 August 1982. Sponsored by American Council for an Energy-Efficient Economy.

1982b "The Cognitive Basis of Energy Decisions in American Households." AAA meetings, Washington, D.C., December 1982.

1982c "Colour Words" (Coauthor and presenter, Paul Kay). Linguistics Universals Workshop, sponsored by <u>Linguistics</u> (journal, Mouton). 4–9 January 1982, Cascais, Portugal.

1982d "O Vocabulário Das Cores: Pró E Contra O Relativismo Lingüístico" (coauthor and presenter, Paul Kay). Keynote lecture for XXV Seminário Do Grupo De Estudos Lingüísticos Do Estado De São Paulo, Campinas, São Paulo, 28 May 1982.

1982e "Color Naming and Linguistic Relativity" (coauthor and presenter, Paul Kay).Department of Linguistics, Federal University of Brazil, Belo Horizonte, Minas Gerais, Brazil, July 1982. 1981 "Home Insulation: The User's View" (with Peter Gladhart and Dennis Keefe.) Presented at Symposium, "Energy Conservation in the 80s." 8–11 December 1981, Clearwater Beach, FL. Sponsored by Department of Energy, OakRidge National Labs and American Society for Testing and Materials.

1979a "Dense Representations in Cognitive Anthropology." Invited paper for "Conference on Dense Representations," Program in Cognitive Science, U.C., San Diego, 25–27 January 1979. 1979b "Are Whorfian Effects Possible in a Domain with Semantic Universals?" (with Paul Kay). Kroeber Anthropology Society Annual meeting, Berkeley, CA.12 May 1979. Manuscript.

1979c "The Effect of Category Boundaries on Judgments of Similarity" (with Paul Kay). Invited paper for conference on "Anthropology, Psychology and Cognitive Structures," Riverside, CA. 17–20 May 1979. Manuscript.

1979d "Ideology and Economics in Energy Policy: An Ethnographic Approach." AAA meetings, Cincinnati, Ohio. 1 December 1979. Manuscript.

1978a "Human Understanding of Machine Activity." Kroeber Anthropological Society Annual Meeting, Berkeley, CA, 6 May 1978.

1978b "How to Measure and Weigh a Category." AAA meetings 16 November 1978. Manuscript. 1978c "Cognitive Variation." Department of Anthropology Seminar, U.California, Riverside, 19 April 1978. Also presented at School of Social Sciences Colloquium, U.California, Irvine, 12 October 1978.

1976 "Category Grading in the Classification of Household Items." AAA meetings, Washington, D.C., 17-21 November 1976. Manuscript.

Courses

Upper division (where taught, and noted if less than 3 credits)

Language and Culture (U.C.Berkeley, Princeton) Sociolinguistics (U.C.Berkeley) Ethnography of Energy Policy (U.C.Berkeley, Michigan State) Energy and Society (Rutgers) Science, Technology, and Public Policy (preceptor, Princeton)

Graduate

Offshore Wind Power: Science, Engineering and Policy (UD) Electric Vehicles and the Grid (UD) Marine Policy Seminar (U. Delaware, 1 hour) Environmental Values, Movements, and Policy (U. Delaware) Electric Vehicle Integration Into Modern Power Networks (2010, Dept of Electrical Engineering, DTU-Lyngby, one seminar) Sustainable Development and Human Values (U. Delaware, 1 hour) Energy Policy and Administration (U. Delaware) Efficiency, Conservation and Renewable Energy Policy (U. Delaware) Research Design and Qualitative Methods (U. Delaware) Technology and Society (U. Delaware) Folk theory and mental models (U.C.Irvine) Cognitive anthropology and cognitive science (Michigan StateU.) Computer use and programming for anthropologists (Texas,Austin)

Chair of graduate students' committees

U.D. Graduates (some noted as member, other chair)

Pablo Espinoza, MA 1995, "Expanding The Use of Renewable Energy in Developing Countries: Lessons from the Chilean Experience"

Fatih Evrendilek, MA 1996, "The Concept of Human Carrying Capacity and its Environmental Policy Implications"

Joseph Kofi Berko, PhD 1997, "Organizational Structures and Mechanisms that Inhibit Electric Energy End-Use Efficiency in Ghana"

Thad K. Ness, MA 1997, "Performance-Based Regulation for Electric Utilities"

Kevin P. Bengtson, MA 1997, "Policies to Develop Renewable Energy in a Competitive Electric Utility Industry"

Christine Egan, MA 1997, "Comparative Energy Information and its Potential in Promoting Residential Energy Efficiency"

Peter T. du Pont, PhD 1998, "Energy Policy and Consumer Reality: The Role of Energy in the Purchase of Household Appliances in the U.S. and Thailand"

Deirdre R. Lord, MA 1998, "Consuming Demand: Motivations for Environmentally Destructive Consumption"

Tammy Renee Brant, MMP 1999, "Community Perceptions of Water Quality and Management Measures in the Naamans Creek Watershed"

Maithili Iyer, PhD 1999, "Technology Policy and Sustainability: An empirical study of renewable energy development in India", Program Manager 3, Energy Efficiency Standards Group, Lawrence Berkeley Laboratory.

Anne Kitchell, MMP 2001, "Managing Impervious Surfaces in Coastal Watersheds." Katherine E. Bunting-Howarth, PhD 2001, "Cultural Models, Public Participation, and Policy: Pfiesteria Piscicida and nonpoint source pollution in Delaware's inland bays"

Kazuhisa Koakutsu, MA 2002, "Comparative Ethnographic Analysis of Energy Conservation and Perceived Quality of Life in Japan and U.S.".

Cyrus Behdwar, MA 2003 "Full Circle: Renewing the Theoretical Foundations of the Social Study of Energy."

Anisha Shankar, MA 2003, "Community-Based Natural Resource Management: A Sustainable Management Option".

Jennifer S. Harris, MMP 2003, "An Analysis of Permit-Linked Compensatory Wetlands Mitigation in Delaware, Maryland and Virginia".

Danielle Tesch, MMP 2003, "National Level Climate Change Adaptation Policies of Small Island States in the Pacific and Caribbean" Now with US EPA

Christina Jarvis, MMP 2005, An Evaluation of The Wildlife Impacts of Offshore Wind Development Relative to Fossil Fuel Power Production.

Anahita Marker, MMP 2005, Finding cultural models within organizations and their effect on sustainable consumption policy.

Doug Christal, MMP 2005, The Utility Of Fishermen's Cognition In Near-Shore Fisheries Management On The East End Of Long Island. Now with NOAA Fisheries

Christopher Payne, PhD 2006, Energy consumption behavior in the commercial sector: an ethnographic analysis of utility bill information and customer comprehension in the workplace. Now: Energy/Environmental Policy Research Scientist/Engineer, Lawrence Berkeley National Laboratory, US DOE

Jacqueline Piero. MMP 2010, Underlying Motivations for Delaware Public Participation in Support of Offshore Wind: Implications for State Energy Policy. Now: Policy Director, Nuvve Corp.

Amardeep Dhanju, PhD 2010, Four Essays on Offshore Wind Power Potential, Development, Regulatory Framework, and Integration. As of 2021: Sr. Offshore Wind Permitting Project Manager, AECOM, Previous: Bureau of Ocean Energy Management.

Scott Baker, MMP 2011, The Atlantic Offshore Wind Power Potential in PJM: A Regional Offshore Wind Power Resource Assessment. Now at PJM Interconnection, as Senior Business Solutions Analyst & Lead for the PJM Advanced Technology Pilot Program.

Cory Budischak, PhD 2012, "What will be the Role of Solar Hydrogen in our Future Energy System?" Department of Electrical and Computer Engineering, UD. (WK lead on PJM model; Cmte Chair: Keith Goossen)

Blaise Sheridan, MMP, 2013, Social Cost of Electricity Generation: A Quantification and Comparison Between Energy Sources Within PJM Interconnection. After working for Sens. Chris Coons and Al Franken, he is now Professional Staff, United States Senate Committee on Appropriations.

Andrew Levitt, MMP 2013, Pricing Offshore Wind Power. Now: Senior Market Strategist at PJM Interconnection

Bruce Williams, MMP 2013, New Applications of Remote Sensing Technology for Offshore Wind Power. Now: Princeton Energy Partners, and University of Maryland, Princess Anne.

Jo Huxster, PhD, 2013, Student Understanding of Climate Change: Influences of College Major and Environmental Group Membership on Undergraduate Knowledge and Mental Models. Now Assistant Professor of Environmental Studies at Eckerd College.

Nathaniel S. Pearre, PhD, 2013, Location, Duration and Power: How American's driving habits and charging infrastructure inform vehicle-grid interactions. Now: Postdoctoral Fellow, Renewable Energy Storage Laboratory, Dalhousie University

Nicole Suto, MMP 2014, Critical Recharge Zones. Now: Truck charging infrastructure planner, Tesla Motors.

Emily Bryant, MMP 2015, Sea Level Rise Planning In Delaware: An Examination Of The State's Sea Level Rise Advisory Committee. Now a producer at NPR, Philadelphia.

Katherine Harris, MMP 2017, Improving the Electric Vehicle Driver's Experience (analytical paper). Now: Clean Vehicles and Fuels Advocate, Climate & Clean Energy Program, Natural Resources Defense Council.

Elpiniki Apostolaki-Iosifidou, PhD 2017, Grid Integration OF Clean Electricity Generation And Storage. Positions: Postdoc 2018 at UC Berkeley; Associate Staff Scientist 2019–2020 at Grid Integration, Systems, and Mobility (GISMo) group at SLAC National Accelerator Laboratory, Stanford. As of 2020: ENGIE Impact, Brussels. Hamza Lemsaddek, 2019, Vehicle-To-Vehicle Power: Design and Implementation. Master's Thesis, Dept of Electrical and Computer Engineering, UD. Now: Electrical Engineer, Nuvve Corp.

Meghan Rowe, MMP 2019, "Policies to Internalize the External Costs of Electricity to Promote Renewable Energy Generation, Including Offshore Wind". Program in Marine Policy, SMSP. Now: Energy outreach associate, ICF International, Inc.

Rodney Thomas Tyler McGee, PhD 2020, River: Roaming Inverter Vehicle Energy Resource. UD Electrical and Computer Engineering. (Kempton was Co-Chair) Now: Chief Engineer, Transportation Electrification Center, UD.

Olga Mironenko, PhD 2020, Detection of DC Injection and Measuring AC Current with a Single System For Electric Vehicle Charging and Discharging. UD Department of Electrical and Computer Engineering. Awarded July 2020. Now: Teaching Assistant Professor, Electrical And Computer Engineering, U Of Illinois At Urbana-Champaign.

Samantha E. Bingaman, MMP 2021, public views of Block Island Wind Farm (approximate title). WK was committee member.

Kuncheng Bai, PhD 2021, "Advanced Components for Electric Vehicle System: Vehicleto-Grid Metering, Vehicle-to-Vehicle Charging, and High-power Charge Circuit Interrupting Devices". UD Department of Electrical and Computer Engineering. WK committee member and lead advisor on V2G service requirements.

Lillian Elizabeth Peterson, BS, 2022, Honors Program, 2022. "Cost and Policy Options Analysis for Statewide Offshore Wind Procurements" Now enrolled, Danish Technical University, Master of Science in Wind Energy, Roskilde, Denmark.

Sara B. Parkison, ABD 2020, (WK advisor and chair of PhD Committee)

Member of PhD Committees outside U.D. CEOE (Selected):

Shi You, PhD 2011, "Developing Virtual Power Plant for Optimized Distributed Energy Resources Operation and Integration". Department of Electrical Engineering, The Technical University of Denmark, Kgs. Lungby, DK. (Supervisors: Chresten Træholt and Bjarne Poulsen)

Philip Douglass, PhD 2014, "Integrating Autonomous Load Controllers in Power Systems". DTU Electrical Engineering, Kgs. Lungby. (Chair: Prof. Jacob Østergaard)

Stijn Vandael, PhD 2015, "Aggregate and dispatch control of grid-integrated electric vehicles" KU Leuven, Belgium (Defense held at Auditorium of the Arenberg castle, Heverlee)

Anders Bro Pedersen, 2014, "Electric vehicle integration in a real-time market" DTU Electrical Engineering, Risø and Kgs. Lyngby. Committee approval 8 October 2014 (Supervisor Jacob Østergaard, Assessment cmte: Prof. Qiuwei Wu, W. Kempton, Dr. Preben Jørgensen.

Paul Codani, PhD 2016, "Grid Integrated vehicles: Business models and Technical Constraints for Car Manufacturers", Defense 19 October 2016, CentraleSupélec, Gif-Sur-Yvette, France. (Supervisors: Marc Petit and Yannick Perez)

Olivier Borne, 2019, "Vehicle-To-Grid and Flexibility for Electricity Systems: from Technical Solutions to Design of Business Models." Thèse de doctorat de l'Université Paris-Saclay préparée à CentraleSupélec. (WK was Examinateur, defense on 19 March 2019)

Aaron Luke Smith, 2020, Equalizing Power: IRELAND AND THE RAPID TRANSITION TO A SUSTAINABLE ENERGY FUTURE FOR EUROPE. Defense JULY 2020. UD Energy and Environmental Policy. Chair: Lawrence Agbemabiese.

Felipe Gonzalez Venegas, PhD 2021, "Electric Vehicle integration into distribution systems. Considerations of user behavior and frameworks for flexibility implementation." Thèse de doctorat de l'université Paris-Saclay, École doctorale n° 575, Electrical, Optical, Bio: physics and Engineering (EOBE). WK was examiner, chairs Marc Petit and Yannick Perez.

Bassem HAIDAR , 2021, "A Techno-Economic Analysis of the Electric Vehicle Transition: Policy, Infrastructure, Usage, and Design" Thèse de doctorat de l'Université Paris-Saclay. WK was examiner. Rémi Lauvergne, 2022, "Impacts and opportunities of new mobilities for the electrical system". Thèse soutenue à Paris-Saclay, le 15 Septembre 2022

Current Graduate Student Advisees:

Current Master's students: Samuel Ramos, John Metz, Walker Schwartz

Current PhD students: Richard Bowers, Sara Parkison

I am also currently on committees, not as chair, for several additional graduate students.

Invited Panelist or Discussant

(post-1998, no longer tabulating all of these, only if particularly notable)

2014 "Mid-Atlantic offshore wind interconnection and transmission (MAOWIT)" and "System Design Optimized for a Large-Turbine,Wind Farm near Wilmington Canyon" 2014 Project Peer Review, US Dept of Energy, Wind Power Program, 24-28 March 2014, Arlington, VA

2013 Invited Plenary co-chair (with Jacob Østergaard), IEEE Innovative Smart Grid Technologies—Europe (ISGT) 2013, "Directions of the Future Smart Grid". Copenhagen, 7 Oct 2013. Also chaired two panels on electric storage and EVs, at this IEEE conference: "System services and electric transportation" and "Integration of electric vehicles and storage 2".

2010 Invited workshop participant, "Creating Climate Wealth Summit 2010". Carbon War Room. Washington, DC April 20-22

1998 Invited discussant, "Discourse, Power and the Environment: The Role of Mediating Institutions", AAA Annual Meetings, Philadelphia, 6 December 1998

1997 Invited discussant, "The Anthropology of Pfiesteria", Dept of Anthropology, U of Maryland--College Park. 18 November 1997.

1995 Invited discussion leader, "Preferences, Values and Choice in the Transport Sector." Workshop at the World Bank, Washington DC, 25 January 1995.

1995 Invited panelist, "Energy bills as a component of client energy education." Panel presentation in workshop, "Energy Consumer Education: Does it save dollars and energy?", workshop at conference: Utilities, Consumers & Public Policy IV, University Park, PA, 15 May 1995.

1994 Invited discussant for session "Sense and Sensibility 1: Cognition Emerges from Perception", AAA Meetings, Atlanta, 3 Dec 1994.

1993 Invited discussant, "Individual Variation and Cultural Models" AAA meetings, Washington DC, 18 November 1993.

1991 Invited discussant for paper in series "Motivating people to Act as if the Future Mattered", Program for the study of Sustainable Change and Development, Tufts University, 10 April 1991. 1991 Invited discussant for session "Electronic Technology and Education", AAA meetings, Chicago, 20 November 1991.

1991 Invited participant "ETE-21 Transportation and Communication Round-Table", McLean, VA, 30-31 October 91. (Resulting report submitted to secretariat for 1992 U.N. Conference on Environment and Development.)

1989 "Energy and Lifestyles" (panel presentation) 1989 Energy Program Evaluation Conference, Chicago.

1989 Workgroup Rapporteur, "Managing the Global Commons", Research Workshop organized by Oak Ridge National Laboratory, August 1989.

1989 Invited Discussant, "Meanings of Science and Technology in Schools, Workplace, and Communities." 1989 AAA Meetings, 17 November 1989.

1986 Invited Participant, "Energy and Lifestyles: Household Energy Research Goals for the 1990's, 8-10 July 1986, Michigan State University.

1985 Committee member, Committee on Social and Behavioral Aspects of Energy Consumption and Production, National Academy of Sciences (Elliot Aronson, Committee Chair). April 1984 through November 1985.

1984 Invited participant, Advanced Research Seminar on Cognitive Aspects of Survey Methodology. National Academy of Sciences, St.Michaels, Maryland, 15–21 June 1983, and Baltimore, 12–14 January 1984.

1983 Discussant, "The Social Organization of Knowledge and Practice." AAA meetings, 19 No-vember 1983.

1980 "Anthropology and Social Policy: What is it and where are we?" Member of panel at this plenary session, AAA meetings, Washington, D.C., 4 December 1980.

1979 "Energy and Environmental Policy: Contemporary Analyses." Co-chair (with Mike Higgins) of session given at AAA meetings, Cincinnati, 1 December 1979.

Patents

• "System And Method For Assessing Vehicle To Grid (V2G) Integration" filed on 1 May 2007 as Application No. 11/742,882. (Kempton and Tomic). (Withdrawn because our corresponding article was published on-line by the journal a few weeks before the patent application.)

• "Hierarchical Priority and Control Algorithms for the Grid-Integrated Vehicle", filed 3 March 2009. **US Patent 8116915** awarded 14 Feb 2012. (Kempton)

Electric Vehicle Equipment for Grid-Integrated Vehicles. (VSL) Serial 12/887,038 (UD 308), filed 21 Sep 2010, US Patent No. 8509976 awarded 13 Aug 2013 (Kempton)
Electric Vehicle Station Equipment for Grid-Integrated Vehicles. (EVSE) Serial 12/887,013, filed 21 Sep 2010, US Patent No. 9,754,300 awarded 5 Sept 2017 (Kempton, Kiamilev, McGee, Waite) (UD 307)

• "Aggregation Server for Grid-Integrated Vehicles." Serial 12/887,064, Filed 21 Sep 2010. (Kempton). U.S. Patent 9,043,038, awarded 26 May 2015. Chinese patent ZL 201080064330.7, awarded 29 March 2017. (UD 314)

Major Software Designed and Implemented

"Archive." Data management for buildings energy analysis (implemented by Daniel Feuermann).

"Dr. Pascal." A visible programming environment for teaching computer science to undergraduates and secondary students. Kempton designed, based on cognitive studies of student learning of computer science. WK created company "Visible Software" for production and individual distribution. Distributed in reduced forms "PcPix" and "MacPix" free for students in conjunction with major computer science textbooks by W.W.Norton, Benjamin/Cummins, and Addison-Westley. Re-configured as an educational product "Dr. Pascal BasePak" by D.C. Heath & Co, who took over all educational marketing as of 1991. Ported and distributed for MS-DOS, VAX/ VMS, and Macintosh system 6. Reviewed in: <u>Byte</u>, Vol 15, No 1, Jan 1990; <u>J Pascal, Ada & Modula-2</u>, Vol 7, No 4, 1988, and again July/Aug 1990; <u>Electronic Learning</u>, May/June 1987, <u>SIGCS</u> <u>Newsletter</u>, Vol 1 No 2, Jan 1987; <u>Rainbow News</u>, Vol 4, No 7–9, July–Sept 1987; <u>Tug Lines</u> (Turbo User Group) Issue 38, Aug/Sept 1990.

Grid-integrated Vehicle software. Specifications by Kempton, implementation and coding by Drs. Sachin Kamboj, Stijn Vandael and others for aggregator, VSL, EVSE and supporting tools (see patents above). Technical basis for startup, then IPO of Nuvve Corp. (NASDAQ NVVE)

Trip@Power. User-facing client software, for managing electric vehicle charging, trips and grid services. Kempton wrote specifications, user interface, functional design, and extensive Alpha and Beta testing. Coding for iOS by Chris Welsh, Post-Cambrian Software.

Consulting

Analysis of industry reaction to energy conservation policies. Research at Lawrence Berkeley Laboratory under contract W-7405-ENG-48 from U.S.Department of Energy: January- September 1978.

Energy Education's Place in Energy Conservation. Presented workshops (with David Harrje) Philadelphia (9 Feb 1988) and Wilkes-Barre, PA (11 March 88). Commission on Economic Opportunity of Luzerne County. Also consulted on energy information videotape produced by Lavelle Miller Group for CEO.

Exhibition on Global Warming. Advised ASTC (Association of Science-Technology Centers) and Franklin Museum on Lay conceptions of global warming for NSF – funded exhibit to travel to 11 cities (September 1990, February 1991).

Developed interview protocol for open-ended interviews with leaders in renewable energy opportunities. Center for Global Change, University of Maryland, College Park, December 1991.

Reviewed public communications on climate change, analyzed communications strategies, prepared presentation for EPA workshop. Contracted by Waste Policy Institute for US EPA, June 1996.

Design and interpretation of focus groups on green pricing. Contracted by Research into Action. August, Sept 1996.

Advisory Committee on focus group and survey regarding wolf introduction into Adirondack Park. For Defenders of Wildlife (pro bono), August-Sept 1996.

Advisory Committee, ACEEE-FTC appliance labeling project. For the American Council for an Energy-Efficient Economy. 1999-2000.

Nuvve Corp, 2015-ongoing, Advise on technical and policy issues for Grid Integrated Vehicles.

Public Testimony and Professional Service

Report on Litigation Against Energy Conservation Building Codes. Presentation at California Energy Resources Conservation and Development Commission, Conservation Division. Sacramento, CA, 4 October 1978.

Develop ethnographic methodology to study the sociocultural basis of auto mechanics' repair decisions (with Mike Agar). Bureau of Consumer Protection, Federal Trade Commission: March 1980.

Testimony before Consumer Committee, Michigan House of Representatives, on House Bills 5503 "Home Heating Information Act", and 5504 "Michigan Energy Disclosure Act", 28 April 1982.

Discuss "Occupant Variables" as part of DOE's research plan for national evaluation of Weatherization Assistance Programs. Oak Ridge National Laboratory, August 1984. Presentation "The User Friendly Utility Bill" for Governor's Task force on Home Energy Rating Systems, Denver, Colorado (18 July 1988). Related presentations to Colorado Public Utilities Commission and Public Service of Colorado (19 July).

Presentation on "Improved Energy Bills", Citizens Advisory Committee, NJ Board of Public Utilities, 27 July 1988.

Written testimony on Credit for Hot Water Recovery Devices, letter of 22 June 1988, solicited by California Energy Commission.

Testimony on Undefined Variables, File Binding, and Error Trapping for Joint Pascal Committee (ANSI/IEEE/ISO/BSI), solicited by committee chair. Framingham, Masssachusetts, 15 September 88.

Testimony on New Jersey Energy Master Plan, Trenton, NJ, 6 December 1990.

Testimony on Demand Side Management Resource Plan, NJ Board of Public Utilities, 15 Jan 1991, 14 February 1991. Solicited by S. Weiner, President, BPU. (My testimony stimulated a fundamental change in acceptance criteria for energy efficiency projects -- inclusion of environmental externality costs.)

Testimony "Automobile Efficiency and Behavior: Lessons from Utility Energy Efficiency" requested by National Research Council, Committee on Fuel Economy of Automobiles and Light Trucks. Beckman Center, Irvine, CA. Oral Testimony 11 July, written (11 pages) testimony 31 July 1991. Expenses paid by NAS.

Invited participant with prepared commentary, Lifestyle and Personal Energy Use, Office of Technology Assessment (U.S. Congress), Washington, D.C. 3 June 1991.

Presentation on "Citizen Knowledge and Values," Invited by Environment Canada in preparation for national government program on climate change and environmental education. Toronto, 3 February 1992. (Kempton was the only foreigner invited).

Invited member, Working group to review and refocus the U.S. Department of Energy's buildings research program. Organized by ACEE and the Alliance to Save Energy, reporting to DoE and the U.S. Congress. Washington, D.C. December 1991 – June 1992.

"The Human Factor in Energy Consumption." Invited presentation to Governor's Energy Task Force, Baltimore, MD, 19 March 1992.

Workshop presentation at DOE Region III Weatherization Workshop on "Weatherization as a Demand-Side Management Activity". 5 October 1992, Washington, DC.

Member, Advisory Committee, "Cultural Factors in Pollution Prevention" EPA-Sponsored project at Univ of Colorado, Boulder. (Advisory Committee meetings 25 Sept 1992 and 19 Feb 1993.)

"Behavioral and structural barriers to energy efficient decisions by consumers." Invited presentation to the Environmental and Energy Study Conference, U.S. Congress, Rayburn HouseOffice Building, Washington, DC, 30 March 93.

"Advanced Diagnostics for Low-Income Weatherization in Delaware." Invited testimony at public hearing regarding Delaware Weatherization Assistance Program, 23 June 1993. Also invited to attend Clearinghouse Committee meeting, Delaware General Asssembly, on 8 July 1993, regarding state weatherization program, at which our CEEP report on Advanced Diagnostics was cited by the meeting chair.

Committee on Committees and Nominations, Univ of Delaware, September 1993 – 1995.

Summary of my research on public views of global warming, and discussion of planned media and other public advocacy strategies. Requested by US Climate Action Network, a coalition of national and international environmental groups advocating preventative action (Greenpeace, Sierra Club, FOE, NRDC, etc). Washington, DC, 13 January 1994.

Radio and television appearances speaking on public views of the environment: WILM (1st), WNRK (16th), WVUD (16th), Radio Times (PBS/WHYY, 24th), TV12 News (Wilmington, 20th); April 1995, tape cable TV show "Enviro Close-Up" (19 Aug 95).

Speaker for Earth Week, 20 April 1995. Sponsored by Student Environmental Action Coalition, University of Delaware.

Advisor and speaker, "Creating a U.S. Constituency for Climate Change." Meeting of foundations, activists, and constituent groups, Poncantico Conference Center (New York). Organized by Rockefeller Brothers Fund. 26 June 1995.

Speaker, "What do Americans really think about Global Change?", UD College of Marine Studies' Coast Day, Lewes, DE, 1 October 1995.

Lecturer, "Global Climate Change and the U.S. Public." U.D. Land and Sea Lecture Series, Two public lectures, in Lewes and Seaford, DE, 12 Feb 1996.

Chair, "Workshop on Values, Welfare, and Quality of Life", OECD Environment Directorate. Paris, France, 18–19 March 1996. Invited chair of workshop for 20 social scientists from OECD countries and 4 staff of OECD Environment Directorate.

Testimony, "Innovative Billing for Utility Deregulation", oral and written testimony (with Deirdre Lord), State of Pennsylvania Public Utility Commission, Harrisburg, PA. 14 Feb 1997.

Voting member and co-chair, Newark Traffic Relief Committee. Appointed by Newark City Council, 1998 through 2000.

Chairperson, "Newark Bicycle Committee" Citizen group catalyst for planning, funding, and building a network of bicycle and walking corridors for Newark, Delaware. 1997-present. First corridor completed and opened 2003.

Member, Interdisciplinary Ethics Planning Group, University of Delaware. Fall 2003-present.

Organizing Committee, Ethics and the Life Sciences. Conference at U Delaware, 22-24 October 2004.

Briefings for Delaware legislators, agencies, and other elected officials on climate change and offshore wind. Fall 2005 – July 2008. Representative forua: DNREC Multi-P Committee (July 06), Sen. Carper and staff, Sen. Castle (with CACC), Governor's Energy Advisory Council (26 Oct 06), League of Women Voters (), Citizens for a Better Sussex (21 Nov 06), 2007: Chemical Veterans (DuPont), Lewes Chamber of Commerce, Woodbridge High School...

Written and verbal testimony before the Delaware Public Service Commission, August – November 2006. Regarding RFP for new long-term power contract, docket 06-241. Oral testimony given at approximately 8 hearings, plus approximately 10 items of written testimony submitted to this docket (with Jeremy Firestone).

Discuss Offshore Wind (with J. Firestone) for 1 hour on WHYY "Radio Times", Sept 15, 2008.

Invited member, Gov. Jack Markell Transition Team (Infrastructure/DNREC). Nov 2008 – Jan 2009.

Workgroups on State Energy Plan (Invited), "Reducing the Environmental Footprint of Generation" (2) and "Economic Development" (5). Developed analysis behind state energy planning. Sept 2008 – Jan 2009.

Invited testimony, "Offshore Renewable Energy", for hearing, "The Blue Economy: The Role of the Oceans in our Nation's Economic Future" Senate Committee on Commerce, Science and Transportation, Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard. 9 June 2009, Russell Senate Office Building, Washington, DC.

Invited Testimony, "Offshore Wind", Legislative Hearing on S. 1733, Clean Energy Jobs and American Power Act. Senate Committee on Environment and Public Works, 410 Dirkson, 29 Oc-tober 2009.

Member, Interagency Task Force on Offshore Wind, State of Delaware, October 2009 - March 2011.

Reviewer, IPCC's Special Report on Renewable Energy (SRREN). Requested by US Government, Department of Energy, as reviewer for this IPCC report. Review comments coordinated by Dr. Robert C. Marlay, Director, US Climate Change Technology Program Office, UD DOE. July 2010.

Member, G4V – Grid for Vehicles: "European Roadmap towards the infrastructure enabling the mass market of electric vehicles". Joint analysis by 6 electric utilities and 6 academic institutions (I was the only non-European.) Funded under European Community's 7th Framework Programme of the EU [FP7/2007-2013]. Begin 2009, Final report, Brussels, 30 June 2011

2008-present. The University of Delaware Energy Institute, Council of Fellows.

2010 Invited lecture on Offshore wind and V2G, IEEE, Industry Applications Society, Baltimore Chapter, Nov 17, 2010. Linthicum Heights, MD.

2011 – 2015. The Outer Continental Shelf (OCS) Scientific Committee (SC). Dept of Interior, Bureau of Ocean Energy Management (BOEM). Appointed by Sec. Salazar.

2013 Resource Expert, IEC TC 69. International Electrotechnical Commission.

2014 "Role of Universities in Reducing the Cost of Offshore Wind" Presented at Panel to US Congress, organized by UD Special Initiative on Offshore Wind, Capital Building, Washington DC. 21 June 2014

2015 Testimony on Bill for net metering and markets for "balancing services", Virginia House of Delegates, House Commerce and Labor, Special Subcommittee on Energy. 3 Feb 2015.

2015 Advising NY State (NYSERDA and Governor's Office) and City of New York (Office of Sustainability) on Offshore Wind for New York. Example presentation "Offshore Wind Energy: New York City" presentation, with Stephanie McClellan, at New York City Hall, September, 2015. 2016 Comment on: Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New York Environmental Assessment; OCS EIS/EA BOEM 2016-042 (with Jonathan J Buonocore), 13 July 2016.

2016 Written Testimony: "BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION", Electric Storage Participation in Regions With Organized Wholesale Electric Markets, Docket No. AD16-20. RESPONSE OF EV R&D GROUP, THE UNIVERSITY OF DELAWARE. 22 May 2016 (written testimony)

2017 Written comment on Massachusetts Dept of Public Utilities Docket 17-103, Offshore Wind, Section 83C. 15 May 2017

2017 Testimony to State of Delaware Offshore Wind Working Group, Dover, DE. Verbal testimony 1 Nov 2017, plus additional written testimony, 6 Dec 2017.

2017 Multiple reports to <u>energinet.dk</u> on use of EVs to provide grid services in Denmark, coauthored with Nuvve.

2017 Comment on NOPR, US Federal Energy Regulatory Commission (FERC), on participation of storage in Regional Transmission Operator electricity markets. (Several of my comments were incorporated into the final Order issued by FERC.)

2017 Developed amendment to Delaware Code (with Sara Parkison and Imelda Foley), reviewed with stakeholders, and achieved three legislative sponsors. Lead sponsor: Sen Gary Simpson (minority leader). Bill is SB 152, "AN ACT TO AMEND TITLE 26 OF THE DELAWARE CODE RELAT-ING TO GENERATING SYSTEMS WITH THE NEW SAE ELECTRIC SAFETY STANDARD" Passed by the Delaware Senate Environmental, Natural Resources & Energy Committee. 29 Mar 2018, referred to full Senate.

2017 Comment on State of New York, Public Service Commission, CASE 18–E–0018, New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators and Energy Storage systems 5 MW or Less Connected in Parallel with Utility distributed systems. (with Sara Parkison and Imelda Foley)

2018 Provided public comment, written and in-person, to Delaware PSC on on EV rate filing, Docket 17-1094. Dover, Delaware, 2018.

2018 Delivered public comment on NY State draft Standard Interconnection Requirements (12 March).

2018 Submitted written public comment on City of Philadelphia EV stakeholder group (February). (with Sara Parkison and Imelda Foley)

2018 Provided policy brief to relevant staff, Office of the Mayor, City of New York, identifying most effective policies for EV adoption (with Imelda Foley and Sara Parkison), September 2018.

2018 Write, solicit sponsors, and advance a Delaware Bill that will make SAE Standard J3072 sufficient for interconnection of electric vehicles as grid resources (like solar and wind, for which the standard is by UL). Spring 2018 (bill not voted on) and Fall 2018 (new sponsors, Sen McDowell and Rep Baumbach). With Sara Parkison.

2018 Recommended, and on invitation, drafted, sections of the 2018 appropriations for the Senate Committee on Environment and Public Works. This language requires the US Army Corps of Engineers to study and evaluate "at least three locations" in the US for "Advanced Off-

shore Wind Deployment Ports". This became law end 2018. Then brief Sen Carper & staff, DE Dept. of State, Office of Governor, and Senate EPW Committee staff, Wilmington, 31 Oct 2018.

2018 Met with two NJ BPU Commissioners and five staff to discuss interconnection of electric vehicles for grid services, and current administrative and regulatory barriers to deploying this resource in NJ. 6 August, Trenton, NJ.

2018 Testified in person on "New Jersey Energy Master Plan" for two working groups, both in September 2018.

2018 Written testimony (invited), including administrative and legislative recommendations, for inclusion in the NJ Energy Master Plan, November 2018. (With Imelda Foley and Sara Parkison)

2019 Oral and Written testimony to "Energy & Environment Committee", Meeting #10, The Erie County Legislature, Buffalo, NY, Sept 19, 2019. (On environmental issues regarding wind turbines in Lake Erie. (Public Hearing by legislative body).

2020 Invited testimony before Special Committee on Climate Change, Legislative Assembly of Prince Edward Island. 16 Jan 2020. Testimony and subsequent written comment fall 2020 led to Feb 2021 revisions to the PEI "Renewable Energy Act".

2020 "Offshore Wind Industry Growth, Jobs & Environmental Impacts." Invited briefing for DE Delegation (Sens. Carper, Coons, Rep Blount-Rochester), staff, and others. (With Nancy Sopko.)

2020 Advised DE environmental groups on offshore wind. Gave talks for to DE Sierra Club, League of Women Voters, Rehoboth Green Drinks, Interfaith Power and Light, Delaware Nature Society, New Castle County Green Drinks.

2020 Develop briefing documents on offshore wind policy and technology, deliver in briefings to Biden Transition team, and to advisors and incoming Deputy and advisor-level appointees at Dept of Interior and Dept of Energy, as well as WH Climate team, November 2020 – Feb 2021.

2021 "Offshore Wind Power for Delaware" testimony at Workshop organized by Sen. Stephanie Hansen, Chair, Energy Committee, Delaware Senate, January 2021.

Other Professional Activities

Member, Committee on Computer-Assisted Anthropology. Participant at organizational meeting, funded by Wenner-Gren Foundation, University of Pittsburgh, March 1982.

Coordinator (with Gary Downey), Energy Policy Interest Group (for anthropologists), 1980–1984.

Representative of the American Ethnological Society (Section H Committee) to the American Association for the Advancement of Science, 1986 – 1991.

Member, Citizen's Advisory Committee, New Jersey Board of Public Utilities. Appointed by BPU President, 1988 – 1990.

Radio Interview on "Thermostat Use" produced by AAAS Office of Communications, distributed via Mutual Broadcasting System to about 1100 U.S. radio stations for airing on 19 February 1988.

Organized and coordinated universitywide faculty/graduate seminar "Environment and the Human Sciences", 1990 – 1992, Princeton University (with Dan Deudney and Michael Ross).

Institutional Review Panel for Human Subjects, Princeton University. 1990 - 1991.

Scientific peer reviewer, Intergovernmental Panel on Climate Change, Working Group III. Reviewed "Evaluation of Emissions Scenarios", advised writing teams 6&7 (Costs of mitigation), and 4 (Equity and social considerations). Fall 1994.

Workshop participant, "Anthropology and Human Dimensions of Global Change" Workshop convened by the National Science Foundation, to report on potential contributions of Cultural Anthropology to HDGC. 27-28 June 1995, Arlington, VA.

Fellow, Society for Applied Anthropology (approved by Executive Committee, November, 1995).

Panel Member, NSF "1995 Human Dimensions of Global Change Centers and Teams Competition". Lead review of 12+5 proposals in context of 51 submitted on HDGC Centers, and 21 on Environmental Decision-making Centers. (These are substantial proposals, each \$2 - \$9million over 5 years, which will affect the direction of the field over the next decade.) Meet with panel at NSF to select finalists, 29-30 June, Arlington, VA. Site visits to three finalist universities, July and September 1995. Review of Environmental Decision-making Center, July 1997.

NSF Panel, Site Review, 2007, NSF Center for Decision-making under Uncertainty, Climate Change, at Carnegie Mellon University.

Chair, R&D Committee, Offshore Wind Working Group (American Wind Energy Association). Developed consensus document of R&D priorities for the offshore wind industry (this documents was used to advise US DOE, ultimately supporting the ~\$50M DOE research program in offshore wind). 2007–2011.

Member, AWEA R&D Committee (American Wind Energy Association), 2009 – 2016(?).

Instructional video on V2G, Society of Automotive Engineers (SAE), "Videos from Leading Industry Experts" filmed by SAE, 2009, available at http://mll-sae.org/expert-zone/11-vehicle-togrid-at-ud

Expert Reviewer, IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation.

Invited Testimony before Maryland Senate Finance Committee, regarding SB 861, Maryland Offshore Wind Energy Act, 15 March 2011.

Panelist and presenter, "Cost drivers and cost reduction", in Offshore Wind Symposium, Lessons Learned From Europe: Reducing Costs and Creating Jobs. US Capitol, office of Senator Thomas R. Carper, 12 June 2014.

Member, Society for Automotive Engineers Committees for Standard J3068, WK on Task Force as a full voting Member.

Reviewer for

Grants: National Science Foundation, Maryland Sea Grant College Program, Georgia Sea Grant College Program; US Dept of Energy and NREL review of "Assessing the Potential for Offshore Wind Deployment in the United States", UC Davis Transportation Center. Journals: American Anthropologist, Culture & Agriculture, Current Anthropology, Energy Policy, Environment, Environmental Research Letters, Environmental Research Communications, Human Organization, International Journal of Energy Research, Journal of Ecological Anthropology, Ocean and Coastal Management, J. of Power Sources, Society and Natural Resources, Science Education, Wind Energy, Travel Behaviour and Society.

Member of Editorial Board, Energies, 2020 -