

## CEIC PhD Theses

1. Pattanariyankool, S., *Essays on Power System Economics*, in *Tepper School of Business*. 2010, Carnegie Mellon: Pittsburgh. 90 pages.
2. Katzenstein, W., *Wind Power Variability, Its Cost, and Effect on Power Plant Emissions*, in *Engineering and Public Policy*. 2010, Carnegie Mellon: Pittsburgh. 125 pages.
3. Gresham, R.L., *Geologic CO<sub>2</sub> Sequestration and Subsurface Property Rights: A Legal and Economic Analysis*, in *Engineering and Public Policy*. 2010, Carnegie Mellon: Pittsburgh. p. 282.
4. Gilmore, E.A., *Integrating Comprehensive Air Quality Modeling with Policy Analysis: Applications for Distributed Electricity Generation*, in *Engineering & Public Policy and Chemical Engineering*. 2009, Carnegie Mellon University: Pittsburgh. p. 135.
5. Azevedo, I.M.L., *Energy Efficiency in the U.S. Residential Sector: An Engineering and Economic Assessment of Opportunities for Large Energy Savings and Greenhouse Gas Emissions Reductions*, in *Engineering & Public Policy*. 2009, Carnegie Mellon University: Pittsburgh. p. 450.
6. Walawalkar, R., *Economics of Emerging Electric Energy Storage Technologies and Demand Response in Deregulated Electricity Markets*, in *Engineering & Public Policy*. 2008, Carnegie Mellon: Pittsburgh. p. 191.
7. Spees, K., *Meeting Electric Peak on the Demand Side: Wholesale and Retail Market Impacts of Real-Time Pricing and Peak Load Management Policy*, in *engineering & Public Policy*. 2008, Carnegie Mellon: Pittsburgh. p. 144.
8. Samaras, C., *A life-cycle approach to technology, infrastructure, and climate policy decision making: Transitioning to plug-in hybrid electric vehicles and low-carbon electricity*, in *Engineering & Public Policy*. 2008, Carnegie Mellon University: Pittsburgh. p. 181.
9. Newcomer, A., *Limiting the Financial Risks of Electricity Generation Capital Investments Under Carbon Constraints: Applications and Opportunities for Public Policies and Private Investments*, in *Engineering and Public Policy*. 2008, Carnegie Mellon University: Pittsburgh. p. 162.
10. McCoy, S.T., *The Economics of CO<sub>2</sub> Transport by Pipeline and Storage in Saline Aquifers and Oil Reservoirs*, in *Engineering and Public Policy*. 2008, Carnegie Mellon University: Pittsburgh. p. 267.
11. Chan, M., *Coal Supply and Cost Under Technological and Environmental Uncertainty*, in *Engineering & Public Policy*. 2008, Carnegie Mellon: Pittsburgh. p. 319.

12. Marriott, J., *An Electricity-focused Economic Input-output Model: Life-cycle Assessment and Policy Implications of Future Electricity Generation Scenarios*, in *Civil & Environmental Engineering and Engineering & Public Policy*. 2007, Carnegie Mellon University: Pittsburgh. p. 132.
13. Jaramillo, P., *A Life Cycle Comparison of Coal and Natural Gas for Electricity Generation and the Production of Transportation Fuels*, in *Civil and Environmental Engineering*. 2007, Carnegie Mellon University: Pittsburgh. p. 111.
14. Hines, P., *A Decentralized Approach to Reducing the Social Costs of Cascading Failures*, in *Engineering and Public Policy*. 2007, Carnegie Mellon University: Pittsburgh. p. 202.
15. Stolaroff, J.K., *CO2 capture from ambient air: a feasibility assessment*, in *Engineering & Public Policy*. 2006, Carnegie Mellon University: Pittsburgh. p. 95.
16. Patiño-Echeverri, D., *Valuing Risk Reduction: Three Applications in the Electricity Industry*, in *Engineering and Public Policy*. 2006, Carnegie Mellon University: Pittsburgh. p. 326.
17. Morrow, W., *U.S. Biomass Energy: An Assessment of Costs & Infrastructure for Alternative Uses of Biomass Energy Crops as an Energy Feedstock*, in *Civil and Environmental Engineering*. 2006, Carnegie Mellon: Pittsburgh. p. 209.
18. King, D.E., *Electric Power Micro-grids: Opportunities and challenges for an emerging distributed energy architecture*, in *Engineering & Public Policy*. 2006, Carnegie Mellon University: Pittsburgh. p. 187.
19. Chen, C., *A Technical and Economic Assessment of CO2 Capture Technologies for IGCC Power Plants*, in *Engineering and Public Policy*. 2006, Carnegie Mellon University: Pittsburgh. p. 300.
20. Blumsack, S., *Network Topologies and Transmission Investment Under Electric Industry Restructuring*, in *Engineering and Public Policy*. 2006, Carnegie Mellon University: Pittsburgh. p. 283.
21. Vajjhala, S.P., *Mapping Alternatives: Facilitating Citizen Participation in Development Planning and Environmental Decision Making*, in *Engineering and Public Policy*. 2005, Carnegie Mellon University: Pittsburgh, PA. p. 261.
22. Bergerson, J.A., *Future Electricity Generation: An Economic and Environmental Life Cycle Perspective on Near-, Mid- and Long-Term Technology Options and Policy Implications*, in *Engineering and Public Policy*. 2005, Carnegie Mellon University: Pittsburgh, PA. p. 149.
23. Zerriffi, H., *Electric Power Systems Under Stress: An Evaluation of Centralized Versus Distributed System Architectures*, in *Engineering and Public Policy*. 2004, Carnegie Mellon University: Pittsburgh, PA. p. 280.

24. Wilson, E.J., *Managing the Risks of Geologic Carbon Sequestration: A Regulatory and Legal Analysis*, in *Engineering and Public Policy*. 2004, Carnegie Mellon: Pittsburgh, PA. p. 160.
25. Perekhodtsev, D., *Two Essays on Problems of Deregulated Electricity Markets*, in *Tepper School of Business*. 2004, Carnegie Mellon University: Pittsburgh, PA. p. 99.
26. DeCarolis, J., *The Economics and Environmental Impacts of Large-Scale Wind Power in a Carbon Constrained World*, in *Engineering and Public Policy*. 2004, Carnegie Mellon University: Pittsburgh, PA. p. 190.

## CEIC Publications in Peer-Reviewed Journals

1. Rose, S., P. Jaramillo, M. Small, I. Grossmann, and J. Apt, *Quantifying the Hurricane Risk to Offshore Wind Turbines*. In Review.
2. Mauch, B., P.M.S. Carvalho, and J. Apt, *Can a Wind Farm with Storage Survive in the Day-ahead Market?* In Review.
3. Azevedo, I.M.L., M.G. Morgan, K. Palmer, and L. Lave, *The Cost of Reducing Residential Energy use and CO2 Emissions*. In Review.
4. Mangmeechai, A., H.S. Matthews, M. Griffin, P. Jaramillo, and C. Hendrickson, *Economic and Environmental Life Cycle Assessment of Oil Sands*. In Review.
5. Katzenstein, W. and J. Apt, *The Cost of Wind Power Variability*. In Review.
6. Hoşgör, E., J. Apt, and B. Fischhoff, *Site Selection for Enhanced Geothermal Power: Will the Public Allow Resource Recovery?* In Review.
7. Horin, C., G.E. Cohen, and J. Apt, *The Cost of Solar Power Variability*. In Review.
8. Horin, C., P.M.S. Carvalho, and J. Apt, *Distribution grid reconfiguration reduces power losses and helps integrate renewables*. In Review.
9. Adams, P.J., *Climate Change Impacts on Human Health via Changes in Ambient Ozone Concentrations*. In Review.
10. Adams, P.J., *The Costs of Climate Change: Impacts on Ozone-Related Adverse Health Effects*. In Review.
11. Rose, S. and J. Apt, *Generating Wind Time Series as a Hybrid of Measured and Simulated Data*. Wind Energy, In Press.
12. Morel, A. and B. Morel, *How could avoided deforestation credits compete with returns from palm oil: A proposal for more flexible mechanism*. Journal of Sustainable Forestry, In Press.
13. Zhang, Y., M.D. Ilic, and O.K. Tonguz, *Mitigating Blackouts via Smart Relays: A Machine Learning Approach*. Proceedings of the IEEE, 2011. **99**(1): p. 94-118.
14. Xie, L., P.M.S. Carvalho, L.A.F.M. Ferreira, B. Krogh, N. Popli, and M. Ilic, *Wind Integration in Power Systems: Operational Challenges and Possible Solutions*. Proceedings of the IEEE, 2011. **99**(1): p. 214-232.
15. Venkatesh, A., P. Jaramillo, M. Griffin, and H.S. Matthews, *Uncertainty in Life Cycle Greenhouse Gas Emissions from United States Natural Gas End-Uses*

- and its Effects on Policy*. Environmental Science and Technology, 2011. **45**(19): p. 8182–8189.
16. Rotering, N. and M. Ilic, *Optimal Charge Control of Plug-In Hybrid Electric Vehicles in Deregulated Electricity Markets*. IEEE Transactions on Power Systems, 2011. **26**(3): p. 1021-1029.
  17. Peterson, S.B., J.F. Whitacre, and J. Apt, *Net Air Emissions from Electric Vehicles: The Effect of Carbon Price and Charging Strategies*. Environmental Science & Technology, 2011. **45**(5): p. 1792-1797.
  18. Morgan, M.G. and S.T. McCoy, *A U.S. Strategy for Regulating the Geologic Sequestration of Carbon Dioxide*. EOS, 2011. **92**(11): p. 91-92.
  19. Ilic, M.D., L. Xie, and J.-Y. Joo, *Efficient Coordination of Wind Power and Price-Responsive Demand Part I: Theoretical Foundations*. IEEE Transactions on Power Systems, 2011. **PP**(99).
  20. Ilic, M.D., L. Xie, and J.-Y. Joo, *Efficient Coordination of Wind Power and Price-Responsive Demand Part II: Case Studies*. IEEE Transactions on Power Systems, 2011. **PP**(99).
  21. Fertig, E. and J. Apt, *Economics of Compressed Air Energy Storage to Integrate Wind Power: A Case Study in ERCOT*. Energy Policy, 2011. **39**(5): p. 2330–2342.
  22. Berges, M.E., E. Goldman, H.S. Matthews, L. Soibelman, and K. Anderson, *User-centered Non-Intrusive Electricity Load Monitoring for Residential Buildings*. ASCE Journal of Computing in Civil Engineering, 2011.
  23. Azevedo, I.M.L., M.G. Morgan, and L. Lave, *Residential and Regional Electricity Consumption in the U.S. and EU: How Much Will Higher Prices Reduce CO2 Emissions?* The Electricity Journal, 2011. **24**(1): p. 21-29.
  24. Apt, J., S. Peterson, and J.F. Whitacre, *Battery Vehicles Reduce CO2 Emissions*. Science, 2011. **333**(6024): p. 823.
  25. Apt, J., C.T. Hendrickson, and G. Morgan, *Lester Lave, Visionary Economist*. Environmental Science & Technology, 2011. **45**(13): p. 5457-5458.
  26. Zickfeld, K., M.G. Morgan, D.J. Frame, and D.W. Keith, *Expert judgments about transient climate response to alternative future trajectories of radiative forcing*. Proceedings Of The National Academy Of Sciences Of The United States Of America, 2010. **107**(28): p. 12451-12456.
  27. Whitacre, J.F., A. Tevar, and S. Shama, *Na4Mn9O18 as a Positive Electrode Material for an Aqueous Electrolyte Sodium-Ion Energy Storage Device*. Electrochemistry Communications, 2010. **12**(3): p. 463-466.

28. Weber, C.L., P. Jaramillo, J. Marriott, and C. Samaras, *Life Cycle Assessment and Grid Electricity: What Do We Know and What Can We Know?* Environmental Science & Technology, 2010. **44**(6): p. 1895-1901.
29. Tevar, A. and J.F. Whitacre, *Na<sub>4</sub>Mn<sub>9</sub>O<sub>18</sub> as a Positive Electrode Material for an Aqueous Electrolyte Sodium-Ion Energy Storage Device.* Journal of the Electrochemical Society (Submitted), 2010. **157**(7): p. A870-A875.
30. Shiau, N., N. Kaushal, C.T. Hendrickson, S. Peterson, J. Whitacre, and J.J. Michalek, *Optimal Plug-in Hybrid Electric Vehicle Design and Allocation for Minimum Life Cycle Cost, Petroleum Consumption and Greenhouse Gas Emissions.* Journal of Mechanical Design, 2010. **132**(9): p. 091013-1 - 091013-11.
31. Ricke, K. and M.G. Morgan, *Regional Climate Response to Solar-radiation Management.* Nature Geoscience, 2010. **3**: p. 537-541.
32. Reynolds, T., A. Bostrom, D. Read, and M.G. Morgan, *Now What Do People Know About Climate Change?* Risk Analysis, 2010. **30**: p. 1520-1538.
33. Peterson, S.B., J.F. Whitacre, and J. Apt, *The Economics of Using PHEV Battery Packs for Grid Storage.* Journal of Power Sources, 2010. **195**(8): p. 2377-2384.
34. Peterson, S.B., J. Apt, and J.F. Whitacre, *Lithium-Ion Battery Cell Degradation Resulting from Realistic Vehicle and Vehicle-to-Grid Utilization.* Journal of Power Sources, 2010. **195**(8): p. 2385-2392.
35. Pattanariyankool, S. and L.B. Lave, *Optimizing transmission from distant wind farms.* Energy Policy, 2010. **38**(6): p. 2806-2815.
36. Morgan, M.G. and K. Ricke, *Cooling the Earth Through Solar Radiation Management: The need for research and an approach to its governance.* International Risk Governance Council (IRGC), 2010: p. 24.
37. Morgan, M.G., *How to Cope with an Uncertain Fate: It's time to abandon the fantasy that all nations must first agree on a master climate plan.* Scientific American, 2010.
38. Matthews, H.S., T. Morawski, A. Nagengast, G. O'Reilly, D. Pickelsimer, R. Sackett, and P. Wu, *Planning Energy Efficient and Eco-Sustainable Telecommunications Networks.* Bell Labs Technical Journal, 2010. **15**: p. 215-236.
39. Marriott, J. and H.S. Matthews, *Impact of Power Generation Mix on LCA and Carbon footprint Greenhouse Gas Results.* The Journal of Industrial Ecology, 2010. **14**: p. 919-928.

40. Lee, J., F.M. Veloso, D.A. Hounshell, and E.S. Rubin, *Forcing technological change: A case of automobile emissions control technology development in the US*. *Technovation*, 2010. **30**(4): p. 249-264.
41. Keith, D.W., E. Parson, and M.G. Morgan, *Research on global sun block needed now*. *Nature*, 2010. **463**(7280): p. 426-427.
42. Katzenstein, W., E. Fertig, and J. Apt, *The Variability of Interconnected Wind Plants*. *Energy Policy*, 2010. **38**(8): p. 4400-4410.
43. Jaramillo, P., M. Griffin, and S.T. McCoy, *Life Cycle Inventory of CO2 in an Enhanced Oil Recovery System*. *Environmental Science and Technology*, 2010. **43**(21): p. 8027-8032.
44. Ilic, M.D., L. Xie, U.A. Khan, and J.M.F. Moura, *Modeling of Future Cyber-Physical Energy Systems for Distributed Sensing and Control*. *IEEE Transactions On Systems Man And Cybernetics Part A-Systems And Humans*, 2010. **40**(4): p. 825-838.
45. Hittinger, E., J.F. Whitacre, and J. Apt, *Compensating for Wind Variability Using Co-Located Natural Gas Generation and Energy Storage*. *Energy Systems*, 2010. **1**(4): p. 417-439.
46. Gresham, R.L., S.T. McCoy, J. Apt, and M.G. Morgan, *Implications of Compensating Property-Owners for Geologic Sequestration of CO2*. *Environmental Science & Technology*, 2010. **44**(8): p. 2897-2903.
47. Gilmore, E.A., P.J. Adams, and L.B. Lave, *Using Backup Generators For Meeting Peak Electricity Demand: A Sensitivity Analysis On Emission Controls, Location And Health Endpoints*. *Journal of the Air and Waste Management Association*, 2010. **60**(5): p. 523-531.
48. Fleishman, L.A., W. Bruine de Bruin, and M.G. Morgan, *Informed Public Preferences for Electricity Portfolios with CCS and Other Low-Carbon Technologies*. *Risk Analysis*, 2010. **30**(9): p. 1399-1410.
49. Dooley, J.J., S. Benson, A. Karimjee, and E.S. Rubin, *Special Issue: The Ninth International Conference on Greenhouse Gas Control Technologies*. *International Journal Of Greenhouse Gas Control*, 2010. **4**(2): p. 111-111.
50. Chan, M., M.G. Morgan, and H.S. Matthews, *It Is Time to Clean up Coal Extraction*. *Environmental Science & Technology*, 2010. **44**(13): p. 4845-4846.
51. Botterud, A., T. Kristiansen, and M.D. Ilic, *The relationship between spot and futures prices in the Nord Pool electricity market*. *Energy Economics*, 2010. **32**(5): p. 967-978.

52. Berges, M.E., E. Goldman, H.S. Matthews, and L. Soibelman, *Enhancing Electricity Audits in Residential Buildings with Non-Intrusive Load Monitoring*. Journal of Industrial Ecology, 2010. **14**: p. 844-858.
53. Attari, S., M.L. DeKay, H.S. Matthews, and W. Bruine de Bruin, *Public Perceptions of Energy Consumption*. PNAS, 2010. **107**(37): p. 16054-16059.
54. Adams, P.J., *Global climate response to anthropogenic aerosol indirect effects: Present day and year 2100*. Journal of Geophysical Research, 2010. **115**: p. D12207.
55. Adams, P.J., *Will Black Carbon Mitigation Dampen Aerosol Indirect Forcing?* Geophysical Research Letters, 2010. **37**): p. L09801.
56. Victor, D.G., M.G. Morgan, J. Apt, J. Steinbruner, and K. Ricke, *The Geoengineering Option: A Last Resort Against Global Warming?* Foreign Affairs, 2009. **88**(2): p. 64-76.
57. Shih, C.-Y., C. Scown, H.S. Matthews, and J.H. Garrett, *Data Management for Geospatial Vulnerability Assessment of Interdependencies in US Power Generation*. Journal of Infrastructure Systems, 2009. **15**(3): p. 179-189.
58. Shiau, N., C. Samaras, R. Hauffe, and J. Michalek, *Impact of battery weight and charging patterns on the economic and environmental benefits of plug-in hybrid vehicles*. Energy Policy, 2009. **37**(7): p. 2653-2663.
59. Rode, D., P. Fischbeck, and S.R. Dean, *Upside is Missing from Assessments of Nuclear Costs*. The Electricity Journal, 2009. **22**(8): p. 1-2.
60. Patino-Echeverri, D., P. Fischbeck, and E. Kriegler, *Economic and Environmental Costs of Regulatory Uncertainty for Coal-Fired Power Plants*. Environmental Science & Technology, 2009. **43**(3): p. 578-584.
61. Oudalov, A., L.B. Lave, M. Reza, and M.P. Bahrman, *A Method for a Comparison of Bulk Energy Transport Systems*. Environmental Science & Technology, 2009. **43**(20): p. 7619-7625.
62. Newcomer, A. and J. Apt, *Near term implications of a ban on new coal-fired power plants in the US*. Environmental Science & Technology, 2009. **43**(11): p. 3995-4001.
63. Morgan, M.G., *Energy for Change: Creating Climate Solutions*. Innovations: special issue on Energy and Climate Change, 2009. **4**(4): p. 167-171.
64. Katzenstein, W. and J. Apt, *Air Emissions Due To Wind And Solar Power*. Environmental Science & Technology, 2009. **43**(2): p. 253-258.

65. Katzenstein, W. and J. Apt, *Response to "Comment on 'Air Emissions Due to Wind and Solar Power' "*. Environmental Science & Technology, 2009. **43**(15): p. 6108-6109.
66. Jaramillo, P., C. Samaras, H. Wakeley, and K. Meisterling, *Greenhouse gas implications of using coal for transportation: Life cycle assessment of coal-to-liquids, plug-in hybrids, and hydrogen pathways*. Energy Policy, 2009. **37**(7): p. 2689-2695.
67. Hines, P., J. Apt, and S. Talukdar, *Large Blackouts in North America: Historical trends and policy implications*. Energy Policy, 2009. **37**(12): p. 5249-5259.
68. Fischhoff, B. and M.G. Morgan, *The science and practice of risk ranking*. Horizons, 2009. **10**(3): p. 40-47.
69. Chu, N., J.B. Kadane, and C.I. Davidson, *Identifying Likely PM2.5 Sources on Days of Elevated Concentration: A Simple Statistical Approach*. Environmental Science and Technology, 2009. **43**(7): p. 2407–2411.
70. Chen, P., C. Scown, H.S. Matthews, and J.H. Garrett, *Managing Critical Infrastructure Interdependence through Economic Input-output Methods*. Journal of Infrastructure Systems, 2009. **15**(3): p. 200-210.
71. Chen, C. and E.S. Rubin, *CO2 control technology effects on IGCC plant performance and cost*. Energy Policy, 2009. **37**(3): p. 915-924.
72. Azevedo, I.M.L., M.G. Morgan, and F. Morgan, *The Transition to Solid State Lighting*. Proceedings of the IEEE, 2009. **97**(3): p. 481-510.
73. Attari, S., M. Schoen, C. Davidson, M.L. DeKay, W. Bruine de Bruin, R. Dawes, and M. Small, *Preferences for change: Do individuals prefer voluntary actions, soft regulations, or hard regulations to decrease energy consumption?* Ecological Economics, 2009. **68**: p. 1701-1710.
74. Wilson, E.J., M.G. Morgan, J. Apt, M. Bonner, C. Bunting, M. de Figueiredo, J. Gode, C. Jaeger, D.W. Keith, S.T. McCoy, R.S. Haszeldine, M. Pollak, D.M. Reiner, E.S. Rubin, A. Torvanger, C. Ulardic, S. Vajjhala, D. Victor, and I. Wright, *Regulating the Geological Sequestration of Carbon Dioxide*. Environmental Science & Technology, 2008. **42**(8): p. 2718-2722.
75. Whitcare, J.F., K. Zaghib, W.C. West, and B.V. Ratnakumar, *Dual active material composite cathode structures for Li-ion batteries*. Journal of Power Sources, 2008. **177**(2): p. 566-578.
76. Weber, C. and H.S. Matthews, *Quantifying the Global and Distributional Aspects of American Household Environmental Impact*. Ecological Economics, 2008. **66**(2-3): p. 379-391.

77. Walawalkar, R., S. Blumsack, J. Apt, and S. Fernands, *An Economic Welfare Analysis of Demand Response in the PJM Electricity Market*. Energy Policy, 2008. **36**(10): p. 3692-3702.
78. Stolaroff, J.K., D.W. Keith, and G.V. Lowry, *Carbon dioxide capture from atmospheric air using sodium hydroxide spray*. Environmental Science & Technology, 2008. **42**(8): p. 2728–2735.
79. Spees, K. and L.B. Lave, *Impacts of Responsive Load in PJM: Load Shifting and Real Time Pricing*. The Energy Journal, 2008. **29**(2): p. 113-134.
80. Samaras, C. and K. Meisterling, *Life cycle assessment of greenhouse gas emissions from plug-in hybrid vehicles: Implications for policy*. Environmental Science and Technology, 2008. **42**(9): p. 3170-3176.
81. Rubin, E.S., *CO<sub>2</sub> Capture and Transport*. Elements, 2008. **4**: p. 311-317.
82. Newcomer, A., S.A. Blumsack, J. Apt, L.B. Lave, and M.G. Morgan, *Short run effects of a price on carbon dioxide emissions from U.S. electric generators*. Environmental Science & Technology, 2008. **42**(9): p. 3139-3144.
83. Newcomer, A. and J. Apt, *Implications of generator siting for CO<sub>2</sub> pipeline infrastructure*. Energy Policy, 2008. **36**(5): p. 1776-1787.
84. Morrow, W.R., M. Griffin, and H.S. Matthews, *National-Level Infrastructure and Economic Effects of Switchgrass Cofiring with Coal in Existing Power-Plants for Carbon Mitigation*. Environmental Science and Technology, 2008. **42**(10): p. 3501-3507.
85. Morgan, M.G. and D. Keith, *Improving the Way We Think About Projecting Future Energy Use and Emissions of Carbon Dioxide*. Climatic Change, 2008. **90**(3): p. 189-215.
86. Morgan, M.G., *Needed: A Few New Coal Plants*. Environmental Science and Technology, 2008. **42**(3): p. 647.
87. McCoy, S.T. and E.S. Rubin, *An Engineering-Economic Model of Pipeline Transport of CO<sub>2</sub> with Application to Carbon Capture and Storage*. International Journal of Greenhouse Gas Control, 2008. **2**(2): p. 219-229.
88. Matthews, H.S., L. Soibelman, and M. Berges, *Monitoring Individual Electric Loads and Other Building Performance Metrics*. ICCCB, 2008.
89. Kandlikar, M. and B. Morel, *Accelerating the Mitigation of Greenhouse Gas Emissions: The influence of Uncertainties economic growth and technological change*. Integrated Assessment, 2008. **7**: p. 81-101.

90. Ju, K.H., M.B. Weiss, and B. Morel, *Strategic Technology Options in the Wireless Industry: a case study for wireless carriers*. International Journal of Interdisciplinary Telecommunications and Networking (IJITN), 2008.
91. Ju, K.H., M. Weiss, B., and M. Benoit, *Real Options and Technology Management: Assessing Technology Migration Options in the Wireless Industry*. Telematics and Informatics Journal, 2008.
92. Jaramillo, P., M. Griffin, and H.S. Matthews, *Comparative Analysis of the Production Costs and Life-Cycle GHG Emissions of FT-Liquid Fuels from Coal and Natural Gas*. Environmental Science and Technology, 2008. **42**(20): p. 7559-7565.
93. Fischhoff, B., *The public face of nuclear power*. Bulletin of the Atomic Scientists, 2008.
94. Curtright, A.E., G.M. Morgan, and D. Keith, *Expert assessment of future photovoltaic technology*. Environmental Science and Technology, 2008. **42**(24): p. 9031–9038.
95. Curtright, A. and J. Apt, *The Character of Power Output from Utility-Scale Photovoltaic Systems*. Progress in Photovoltaics, 2008. **16**(3): p. 241-247.
96. Blumsack, S., L.B. Lave, and M. Ilic, *The Real Problem with Merchant Transmission*. The Electricity Journal, 2008. **21**(2): p. 9-19.
97. Apt, J., L. Lave, and S. Pattanariyankool, *A National Renewable Portfolio Standard? Not Practical*. Issues in Science & Technology, 2008. **25**(1): p. 53-59.
98. Allen, E.H., J.H. Lang, and M. Ilic, *A Combined Equivalent-DC, Economic, and Market Representation of the Northeastern Power Coordinating Council U.S. Electric Power System*. IEEE Transactions on Power Systems, 2008. **23**(3): p. 896-907.
99. Zerriffi, H., H. Dowlatabadi, and A. Farrell, *Incorporating Stress in Electric Power Systems Reliability Models*. Energy Policy, 2007. **35**(1): p. 61-75.
100. Yeh, S. and E.S. Rubin, *A Centennial History of Technological Change and Learning Curves for Pulverized Coal-Fired Utility Boilers*. Energy, 2007. **32**: p. 1996-2005.
101. Walawalkar, R., J. Apt, and R. Mancini, *Economics of electric energy storage for energy arbitrage and regulation in New York*. Energy Policy, 2007. **35**(4): p. 2558–2568.
102. Vajjhala, S.P. and P.S. Fischbeck, *Quantifying siting difficulty: A case study of US transmission line siting*. Energy Policy, 2007. **35**(1): p. 650-671.

103. Spees, K. and L.B. Lave, *Demand Response and Electricity Market Efficiency*. The Electricity Journal, 2007. **20**(3): p. 69-85.
104. Rubin, E.S., S. Yeh, M. Antes, M.B. Berkenpas, and J. Davison, *Use of experience curves to estimate the future cost of power plants with CO<sub>2</sub> capture*. International Journal of Greenhouse Gas Control, 2007. **1**: p. 188-197.
105. Rubin, E.S., C. Chen, and A.B. Rao, *Cost and Performance of Fossil Fuel Power Plants with CO<sub>2</sub> Capture and Storage*. Energy Policy, 2007. **35**: p. 4444-4454.
106. Reinelt, P.S. and D.W. Keith, *Carbon Capture Retrofits and the Cost of Regulatory Uncertainty*. The Energy Journal, 2007. **28**(4): p. 101-128.
107. Patiño-Echeverri, D., B. Morel, J. Apt, and C. Chen, *Should a Coal-Fired Power Plant be Retrofitted or Replaced?* Environmental Science & Technology, 2007. **41**(23): p. 7980-7986.
108. Newcomer, A. and J. Apt, *Storing syngas lowers the carbon price for profitable coal gasification*. Environmental Science & Technology, 2007. **41**(23): p. 7974 - 7979.
109. Morrow, W.R., H.S. Matthews, and M. Griffin, *State-level infrastructure and economic effects of switchgrass co-firing with coal in existing power-plants for carbon mitigation*. Environmental Science and Technology, 2007. **41**(19): p. 6657-6662.
110. Morgan, M.G., *Coal-fired power plants: Imprudent investments? Response*. Science, 2007. **315**(5820): p. 1792-1792.
111. Morgan, M.G., *Moving to a Low-Carbon Future: Perspectives on nuclear and alternative power sources*. Health Physics, 2007. **93**(5): p. 568-570.
112. Liao, H.W., *Power system harmonic state estimation and observability analysis via sparsity maximization*. IEEE Transactions On Power Systems, 2007. **22**(1): p. 15-23.
113. Lave, L.B., M.J. Ashworth, and C. Gellings, *The Aging Workforce: Electricity Industry Challenges and Solutions*. The Electricity Journal, 2007. **20**(2): p. 71-80.
114. Lave, L.B., J. Apt, and S. Blumsack, *Deregulation/Restructuring Part I: Re-regulation Will Not Fix the Problems*. The Electricity Journal, 2007. **20**(8): p. 9-22.
115. Lave, L.B., J. Apt, and S. Blumsack, *Deregulation/Restructuring Part II: Where Do We Go From Here?* The Electricity Journal, 2007. **20**(9): p. 10-23.
116. King, D. and M.G. Morgan, *A Customer-focused Assessment of Electric Power Micro-grids*. Journal of Energy Engineering, 2007: p. 150-164.

117. Jaramillo, P., W.M. Griffin, and H.S. Matthews, *Comparative Life Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation*. Environmental Science and Technology, 2007. **41**(17): p. 6290-6296.
118. Ilic, M., J.W. Black, and M. Prica, *Distributed electric power systems of the future: Institutional and technological drivers for near-optimal performance*. Electric Power Systems Research, 2007. **77**(9): p. 1160-1177.
119. Ilic, M., *From Hierarchical to Open Access Electric Power Systems*. Proceedings Of The Ieee, 2007. **95**(5): p. 1060-1084.
120. Hines, P. and S. Talukdar, *Controlling Cascading Failures with Cooperative Autonomous Agents*. International Journal of Critical Infrastructure Systems, 2007. **3**(1/2): p. 192-220.
121. Hawkins, T., C. Hendrickson, C. Higgins, H.S. Matthews, and S. Suh, *A mixed-unit input-output model for environmental life-cycle assessment and material flow analysis*. Environmental Science & Technology, 2007. **41**(3): p. 1024-1031.
122. Fischhoff, B., *Non-persuasive communication about matters of greatest urgency: Climate change*. Environmental Science & Technology, 2007. **41**: p. 7204-7208.
123. Dawson, J.P., P.J. Adams, and S.N. Pandis, *Sensitivity of PM<sub>2.5</sub> to climate in the Eastern US: a modeling case study*. Atmospheric Chemistry and Physics, 2007. **7**: p. 4295-4309.
124. Blumsack, S., L.B. Lave, and M. Ilic, *A Quantitative Analysis of the Relationship Between Congestion and Reliability in Electric Power Networks*. The Energy Journal, 2007. **28**(4): p. 73-100.
125. Blumsack, S., *Measuring the Benefits and Costs of Regional Electric Grid Integration*. Energy Law Journal, 2007. **28**(1): p. 147-186.
126. Bergerson, J. and L.B. Lave, *Baseload Coal Investment Decisions Under Uncertain Carbon Legislation*. Environmental Science & Technology, 2007. **47**(10): p. 3431-3436.
127. Apt, J., D.W. Keith, and M.G. Morgan, *Promoting Low-Carbon Electricity Production*. Issues in Science & Technology, 2007. **24**(3): p. 37-44.
128. Apt, J., *The Spectrum of Power from Wind Turbines*. Journal of Power Sources, 2007. **169**(2): p. 369-374.
129. Keith, D., M. Ha-Duong, and J.K. Stolaroff, *Climate strategy with CO<sub>2</sub> capture from the air*. Climatic Change, 2006. **74**(1-3): p. 17-45.

130. Strachan, N. and A.E. Farrell, *Emissions from Distributed vs. Centralized Generation: The Importance of System Performance*. Energy Policy, 2006. **34**(17): p. 2677-2689.
131. Rode, D., J. Presto, A. Paez, P. Fischbeck, and S.R. Dean, *Sales Comparison Analysis of Power-Generating Assets: The Role of Structure and Time*. The Appraisal Journal, 2006. **74**(2): p. 144-160.
132. Rao, A.B., E.S. Rubin, D.W. Keith, and M.G. Morgan, *Evaluation of Potential Cost Reductions from Improved Amine-based CO<sub>2</sub> Capture Systems*. Energy Policy, 2006. **34**(18): p. 3765-3772.
133. Rao, A.B. and E.S. Rubin, *Identifying Cost-Effective CO<sub>2</sub> Control Levels for Amine-Based CO<sub>2</sub> Capture Systems*. Industrial & Engineering Chemistry Research, 2006. **45**(8): p. 2421 - 2429.
134. Morgan, M.G., P. Adams, and D.W. Keith, *Elicitation of Expert Judgments of Aerosol Forcing*. Climatic Change, 2006. **75**(1-2): p. 195-214.
135. Morgan, M.G., *Don't Grandfather Coal Plants*. Science, 2006. **314**(5802): p. 1049.
136. Minoia, A., D. Ernst, M. Dicorato, M. Trovato, and M. Ilic, *Reference transmission network: A game theory approach*. IEEE Transactions On Power Systems, 2006. **21**(1): p. 249-259.
137. Lave, L.B. and J. Apt, *Planning for Natural Disasters in a Stochastic World*. Journal of Risk and Uncertainty, 2006. **33**: p. 117-130.
138. Gilmore, E.A., L.B. Lave, and P.J. Adams, *The Costs, Air Quality and Human Health Effects of Meeting Peak Electricity Demand with Installed Backup Generators*. Environmental Science & Technology, 2006. **40**(22): p. 6887-6893.
139. DeCarolis, J. and D.W. Keith, *The Economics of Large Scale Wind Power in a Carbon Constrained World*. Energy Policy, 2006. **34**(4): p. 395-410.
140. Blumsack, S., J. Apt, and L.B. Lave, *Lessons from the Failure of U.S. Electricity Restructuring*. The Electricity Journal, 2006. **19**(2): p. 15-32.
141. Blumsack, S., J. Apt, and L.B. Lave, *Response to Andy Ott's letter on "Lessons from the Failure of U.S. Electricity Restructuring"*. The Electricity Journal, 2006. **19**(5): p. 4-6.
142. Bharadwaj, A., R. Tongia, and V.S. Arunachalam, *Whither Nuclear Power? Energy Implications of the US-India Nuclear Power Deal*. Economic and Political Weekly, 2006. **41**(12): p. 1203-1212.

143. Ashworth, M.J., *Preserving knowledge legacies: Workforce aging, turnover, and human resource issues in the U.S. electric power industry*. International Journal of Human Resource Management, 2006. **17**(9): p. 1659-1688.
144. Arunachalam, V.S., R. Tongia, and A. Bharadwaj, *India's Quest for Energy Security*. Canadian Foreign Policy, 2006. **13**(2).
145. Apt, J., L.B. Lave, and M.G. Morgan, *A More Reliable U.S. Electric System*. Issues in Science & Technology, 2006. **22**(4): p. 51-58.
146. Apt, J. and B. Fischhoff, *Power and People*. The Electricity Journal, 2006. **19**(9): p. 17-25.
147. Yeh, S., E.S. Rubin, M.R. Taylor, and D.A. Hounshell, *Technology Innovations and Experience Curves for Nitrogen Oxides Control Technologies*. Journal of the Air & Waste Management Association, 2005. **55**(2): p. 1827-1838.
148. Taylor, M.R., E.S. Rubin, and D.A. Hounshell, *Control of SO<sub>2</sub> Emissions from Power Plants: A Case of Induced Technological Innovation in the U.S.* Technological Forecasting and Social Change, 2005. **72**(6): p. 697-718.
149. Taylor, M.R., E.S. Rubin, and D.A. Hounshell, *Regulation as the Mother of Innovation: The Case of SO<sub>2</sub> Control*. Law & Policy, 2005. **27**(2): p. 348-378.
150. Stolaroff, J.K., G.V. Lowry, and D.W. Keith, *Using CaO- and MgO-rich industrial waste streams for carbon sequestration*. Energy Conversion and Management, 2005. **46**(5): p. 687-699.
151. Rambharat, B.R., A.E. Brockwell, and D.J. Seppi, *A threshold autoregressive model for wholesale electricity prices*. Journal of the Royal Statistical Society Series C-Applied Statistics, 2005. **54**: p. 287-299.
152. Marriott, J. and H.S. Matthews, *Environmental Effects of Interstate Power Trading on Electricity Consumption Mixes*. Environmental Science and Technology, 2005. **39**(22): p. 8584-8590.
153. Keith, D.W., J.A. Giardina, M.G. Morgan, and E.J. Wilson, *Regulating the Underground Injection of CO<sub>2</sub>*. Environmental Science & Technology, 2005. **39**(24): p. 499A-504A.
154. Jia, D., B.H. Krogh, and O. Stursberg, *LMI approach to robust model predictive control*. Journal Of Optimization Theory And Applications, 2005. **127**(2): p. 347-365.
155. Jaramillo, P. and H.S. Matthews, *Landfill Gas to Energy Projects: An Analysis of Private and Social Benefits*. Environmental Science and Technology, 2005. **39**(19): p. 7365-7373.

156. Ilic, M., J.H. Chow, F.D. Galiana, M. Shahidehpour, R.J. Thomas, and F.F. Wu, *Special issue on power technology and policy: Forty years after the 1965 blackout*. Proceedings Of The Ieee, 2005. **93**(11): p. 1883-1886.
157. Ilic, M., E.H. Allen, J.W. Chapman, C.A. King, J.H. Lang, and E. Litvinov, *Preventing Future Blackouts by Means of Enhanced Electric Power Systems Control: From Complexity to Order*. Proceedings Of The Ieee, 2005. **93**(11): p. 1920-1941.
158. Dobesova, K., J. Apt, and L.B. Lave, *Are renewables portfolio standards cost-effective emission abatement policy?* Environmental Science & Technology, 2005. **39**(22): p. 8578-8583.
159. DeCarolis, J.F. and D.W. Keith, *The costs of wind's variability: Is there a threshold?* The Electricity Journal, 2005. **18**(1): p. 69-77.
160. Blumsack, S. and L.B. Lave, *Mitigating Market Power in Deregulated Electricity Markets*. IAAE Newsletter, 2005. **14**: p. 11-23.
161. Blumsack, S., J. Apt, and L. Lave, *A Cautionary Tale: U.S. Electricity Reform*. Economic and Political Weekly (Special Issue: Power Sector Reform - International Experience), 2005. **40**(50): p. 5279-5290.
162. Bharadwaj, A., D.H. Archer, and E.S. Rubin, *Modeling the performance of a tubular solid oxide fuel cell*. Journal Of Fuel Cell Science And Technology, 2005. **2**(1): p. 38-44.
163. Bharadwaj, A., D.H. Archer, and E.S. Rubin, *Modeling the performance of flattened tubular solid oxide fuel cell*. Journal Of Fuel Cell Science And Technology, 2005. **2**(1): p. 52-59.
164. Bergerson, J.A. and L.B. Lave, *Should We Transport Coal or Electricity: Cost, Efficiency & Environmental Implications*. Environmental Science and Technology, 2005. **39**(16): p. 5905-5910.
165. Apt, J., *Competition Has Not Lowered US Industrial Electricity Prices*. The Electricity Journal, 2005. **18**(2): p. 52-61.
166. Willis, H.H., M.L. DeKay, M.G. Morgan, H.K. Florig, and P.S. Fischbeck, *Ecological risk ranking: Development and evaluation of a method for improving public participation in environmental decision making*. Risk Analysis, 2004. **24**(2): p. 363-378.
167. Walawalkar, R. and B.K. Colburn, *ESCOs and In-house Energy Managers: A winning Team*. Energy Engineering, 2004. **24**(4).
168. Tongia, R., *Can Broadband over PowerLine Carrier (PLC) Compete? A Techno-Economic Analysis*. Telecommunications Policy, 2004. **28**: p. 559-578.

169. Strachan, N. and H. Dowlatabadi, *Supplier Strategies and Responses to Institutional Drivers for an Emerging Energy Technology*. International Journal of Global Energy Issues, 2004. **21**(4): p. 383-396.
170. Rubin, E.S., S. Yeh, D.A. Hounshell, and M.R. Taylor, *Experience Curves for Power Plant Emission Control Technologies*. International Journal of Energy Technology and Policy, 2004. **2**(1/2): p. 52-68.
171. Rubin, E.S., M.R. Taylor, S. Yeh, and D.A. Hounshell, *Learning curves for environmental technology and their importance for climate policy analysis*. Energy, 2004. **29**(9-10): p. 1551-1559.
172. Riahi, K., E.S. Rubin, M.R. Taylor, L. Schrattenholzer, and D. Hounshell, *Technological learning for carbon capture and sequestration technologies*. Energy Economics, 2004. **26**(4): p. 539-564.
173. Riahi, K., E.S. Rubin, and L. Schrattenholzer, *Prospects for carbon capture and sequestration technologies assuming their technological learning*. Energy, 2004. **29**(9-10): p. 1309-1318.
174. Palmgren, C.R., M.G. Morgan, W.B. De Bruin, and D.W. Keith, *Initial public perceptions of deep geological and oceanic disposal of carbon dioxide*. Environmental Science & Technology, 2004. **38**(24): p. 6441-6450.
175. Morgan, M.G., *Energy futures*. Issues In Science And Technology, 2004. **20**(4): p. 18-19.
176. Matthews, H.S., G. Cicas, and L. Aguirre, *Economic and Environmental Evaluation of Residential Fixed Solar Photovoltaic Systems in the United States*. ASCE Journal of Infrastructure Systems, 2004. **10**(3): p. 105-110.
177. Lave, L., J. Apt, and S. Blumsack, *Rethinking Electricity Deregulation*. The Electricity Journal, 2004. **17**(8): p. 11-26.
178. Lal, R., M. Griffin, J. Apt, L. Lave, and M.G. Morgan, *Ecology - Managing soil carbon*. Science, 2004. **304**(5669): p. 393.
179. Lal, R., M. Griffin, J. Apt, L. Lave, and G. Morgan, *Response to comments on "Managing soil carbon"*. Science, 2004. **305**(5690): p. 1567d.
180. Keith, D.W., J.F. DeCarolis, D.C. Denkenberger, D.H. Lenschow, S.L. Malyshev, S. Pacala, and P.J. Rasch, *The influence of large-scale wind power on global climate*. Proceedings of the National Academy of Sciences of the United States of America, 2004. **101**(46): p. 16115-16120.
181. Johnson, T.L. and D.W. Keith, *Fossil electricity and CO2 sequestration: how natural gas prices, initial conditions and retrofits determine the cost of controlling CO2 emissions*. Energy Policy, 2004. **32**(3): p. 367-382.

182. Ilic, M., J. Apt, P. Khosla, L.B. Lave, M.G. Morgan, and S. Talukdar, *Introducing electric power into a multidisciplinary curriculum for network industries*. IEEE Transactions on Power Systems, 2004. **19**(1): p. 9-16.
183. Ha-Duong, M. and N. Treich, *Risk aversion, intergenerational equity and climate change*. Environmental & Resource Economics, 2004. **28**(2): p. 195-207.
184. Fumagalli, E., J.W. Black, I. Vogelsang, and M. Ilic, *Quality of service provision in electric power distribution systems through reliability insurance*. IEEE Transactions On Power Systems, 2004. **19**(3): p. 1286-1293.
185. Farrell, A.E., H. Zerriffi, and H. Dowlatabadi, *Energy infrastructure and security*. Annual Review of Environment and Resources, 2004. **29**: p. 421-469.
186. Farrell, A.E. and L.B. Lave, *Emission trading and public health*. Annual Review Of Public Health, 2004. **25**: p. 119-138.
187. Camponogara, E. and S. Talukdar, *Designing communication networks for distributed control agents*. European Journal of Operational Research, 2004. **153**(3): p. 544-563.
188. Brown, M.T. and M.G. Morgan, *Expert Assessment of the Performance of the US System for Environmental Regulation*. Journal of Risk Research, 2004. **7**(5): p. 507-521.
189. Apt, J., L.B. Lave, S. Talukdar, M.G. Morgan, and M. Ilic, *Electrical blackouts: A systemic problem*. Issues in Science and Technology, 2004. **20**(4): p. 55-61.
190. Abanades, J.C., E.S. Rubin, and E.J. Anthony, *Sorbent cost and performance in CO2 capture systems*. Industrial & Engineering Chemistry Research, 2004. **43**(13): p. 3462-3466.
191. Wilson, E.J., T.L. Johnson, and D.W. Keith, *Regulating the ultimate sink: Managing the risks of geologic CO2 storage*. Environmental Science & Technology, 2003. **37**(16): p. 3476-3483.
192. Taylor, M.R., E.S. Rubin, and D.A. Hounshell, *Effect of Government Actions on Technological Innovation for SO2 Control*. Environmental Science and Technology, 2003. **37**(20): p. 4527-4534.
193. Talukdar, S., J. Apt, M. Ilic, L. Lave, and G.M. Morgan, *Cascading Failures: Survival vs. Prevention*. The Electricity Journal, 2003. **16**(9): p. 25-31.
194. Rode, D.C., P. Lewis, and S.R. Dean, *Probabilistic Risk Analysis and Project Capital Structures*. Journal of Structured and Project Finance, 2003. **9**(2).

195. Robinson, A.L., J.S. Rhodes, and D.W. Keith, *Assessment of potential carbon dioxide reductions due to biomass-coal cofiring in the United States*. Environmental Science & Technology, 2003. **37**(22): p. 5081-5089.
196. Parson, E.A., R.W. Corell, E.J. Barron, V. Burkett, A. Janetos, L. Joyce, T.R. Karl, M.C. MacCracken, J. Melilli, M.G. Morgan, S. D.S., and T. Wilbanks, *Understanding Climatic Impacts, Vulnerabilities, and Adaptation in the United States: Building a capacity for assessment*. Climatic Change, 2003. **57**: p. 9-42.
197. Ilic, M., E. Hsieh, and P. Ramanan, *Transmission pricing of distributed multilateral energy transactions to ensure system security and guide economic dispatch*. IEEE Transactions on Power Systems, 2003. **18**(2): p. 428-434.
198. Ha-Duong, M., G. Megie, and D. Hauglustaine, *A pro-active stratospheric ozone protection scenario*. Global Environmental Change-Human and Policy Dimensions, 2003. **13**(1): p. 43-49.
199. Ha-Duong, M. and D. Keith, *Carbon storage: the economic efficiency of storing CO<sub>2</sub> in leaky reservoirs*. Clean Technology and Environmental Policy, 2003. **5**(3-4): p. 181-189.
200. Gregory, R., B. Fischhoff, G. Butte, and G. Thorne, *A multi-channel stakeholder consultation process for energy deregulation*. Energy Policy, 2003. **31**(12): p. 1291-1299.
201. Apt, J. and L.B. Lave, *Electric Gridlock: A National Solution*. Public Utilities Fortnightly, 2003. **141**(18): p. 14-16.
202. Zerriffi, H., Hadi Dowlatabadi, and N. Strachan, *Electricity and Conflict: Advantages of a Distributed System*. Electricity Journal, 2002. **15**(1): p. 55-65.
203. Zerriffi, H., H. Dowlatabadi, and N. Strachan, *Electricity and Conflict: Reliability advantages of a distributed system*. Cogeneration and On-Site Power Production, 2002. **3**(1): p. 29-33.
204. Strachan, N. and H. Dowlatabadi, *Distributed generation and distribution utilities*. Energy Policy, 2002. **30**(8): p. 649-661.
205. Rode, D.C., P. S. Fischbeck, and S.R. Dean, *Residual Risk and the Valuation of Leases under Uncertainty and Limited Information*. Journal of Project Finance, 2002. **7**(4): p. 37-49.
206. Rode, D., P. Fischbeck, and S.R. Dean, *Inferring Individual Asset Values from Aggregate Transaction Data*. The Appraisal Journal, 2002. **70**(4): p. 417-425.
207. Rao, A.B. and E.S. Rubin, *A technical, economic, and environmental assessment of amine-based CO<sub>2</sub> capture technology for power plant greenhouse gas control*. Environmental Science & Technology, 2002. **36**(20): p. 4467-4475.

208. Morgan, M.G. and H. Zerriffi, *The Regulatory Environment for Small Independent Micro-Grid Companies*. The Electricity Journal, 2002. **15**(9): p. 52-57.
209. Matthews, H.S., L. Lave, and H. MacLean, *Life Cycle Impact Analysis: A Challenge for Risk Analysis*. Risk Analysis, 2002. **22**(5): p. 853-860.
210. Keith, D.W. and J.S. Rhodes, *Bury, burn or both: A two-for-one deal on biomass carbon and energy - Reply*. Climatic Change, 2002. **54**(3): p. 375-377.
211. Farrell, A., M.G. Morgan, and L.B. Lave, *Bolstering the Security of the Electric Power System*. Issues in Science and Technology, 2002: p. 49-56.
212. DeKay, M.L., M.J. Small, P.S. Fischbeck, R.S. Farrow, A. Cullen, J.B. Kadane, L.B. Lave, M.G. Morgan, and K. Takemura, *Risk-based Decision Analysis in Support of Precautionary Policies*. Journal of Risk Research, 2002. **5**(4): p. 391-417.
213. Camponogara, E., D. Jia, B.H. Krogh, and S. Talukdar, *Distributed model predictive control*. IEEE Control Systems Magazine, 2002. **22**(1): p. 44-52.
214. Blumsack, S., D. Perekhodtsev, and L.B. Lave, *Market Power in Deregulated Wholesale Electricity Markets: Issues in Measurement and the Cost of Mitigation*. The Electricity Journal, 2002. **15**(9): p. 11-24.
215. Rode, D.C., P.S. Fischbeck, and S.R. Dean, *Monte Carlo Methods For Appraisal And Valuation: A Case Study Of A Nuclear Power Plant*. The Journal of Structured and Project Finance, 2001. **7**(3): p. 38-48.
216. Keith, D.W., *Sinks, energy crops and land use: Coherent climate policy demands an integrated analysis of biomass - An editorial comment*. Climatic Change, 2001. **49**(1-2): p. 1-10.
217. Johnson, T.L. and D.W. Keith, *Electricity from fossil fuels without CO2 emissions: Assessing the costs of carbon dioxide capture and sequestration in US electricity markets*. Journal of the Air & Waste Management Association, 2001. **51**(10): p. 1452-1459.
218. DeCarolis, J. and D. Keith, *The Real Cost of Wind Energy*. Science, 2001. **294**: p. 1000-1002.
219. Routledge, B.R., D.J. Seppi, and C.S. Spatt, *Equilibrium forward curves for commodities*. Journal Of Finance, 2000. **55**(3): p. 1297-1338.

## CEIC Books and Book Chapters

1. Negenborn, R.R., G. Hug-Glanzmann, B. De Schutter, and G. Andersson, *A Novel Coordination Strategy for Multi-Agent Control Using Overlapping Subnetworks with Application to power Systems*, in *Efficient Modeling and Control of Large-Scale Systems*, K.M.G. Javad Mohammadpur, Editor. 2010, Springer.
2. Ilic, M. and M. Jelinek, *A Strategic Framework in Support of Innovation for Future Electric Energy Systems*, in *Chapter (invited) in The Governance of Network Industries: Redefining Roles and Responsibilities*, R. Kunneke and J. Groenewegen, Editors. 2009, Edward Elgar Publishers.
3. Rubin, E.S., *Transitions to Alternative Transportation Technologies: A Focus on Hydrogen*. 2008, Washington: National Academies Press.
4. Zimmerman, R., C.E. Restrepo, J.S. Simonoff, and L.B. Lave, *Risk and Economic Costs of a Terrorist Attack on the Electric System*, in *The Economic Costs and Consequences of Terrorism*, H.W. Richardson, P. Gordon, and J.E. Moore, Editors. 2007, Elgar: Northampton, MA. p. 360.
5. Walawalkar, R., R. Tongia, and B.K. Colburn, *Web-enabled Metering and Controls for Demand Response*, in *Web Based Enterprise Energy and Building Automation Systems*, B.L. Capehart, Editor. 2007, Fairmont Press: Lilburn, GA.
6. Tongia, R., *The Political Economy of Power Sector Reform in India*, in *The Political Economy and Institutions of Power Sector Reform in the Developing World*, D.a.H. Victor, T., Editor. 2007, Cambridge University Press: Cambridge. p. pp 109-174.
7. Palmgren, C.R., M.G. Morgan, W.B. De Bruin, and D.W. Keith, *Initial Public Perceptions of Deep Geological and Oceanic Disposal of Carbon Dioxide (Chapter 9)*, in *Carbon Capture and Sequestration: Integrating Technology Monitoring and Regulation*, E.J. Wilson and D. Gerard, Editors. 2007, Blackwell.
8. Lave, L.B., J. Apt, and M.G. Morgan, *Worst Case Electricity Scenarios: The Benefits and Costs of Prevention*, in *The Economic Costs and Consequences of Terrorism*, H.W. Richardson, P. Gordon, and J.E. Moore, Editors. 2007, Elgar: Northampton, MA. p. 360.
9. Hendrickson, C.T., L.B. Lave, and H.S. Matthews, *Environmental Life Cycle Assessment of Goods and Services: An Input-Output Approach*. 2006, Washington: Resources for the Future. 262.
10. Apt, J., M.G. Morgan, and L.B. Lave, *Electricity: Protecting Essential Services*, in *Seeds of Disaster, Roots of Response: How Private Action Can Reduce Public Vulnerability*, P. Auerswald, et al., Editors. 2006, Cambridge University Press: New York. p. 211-238.

11. Walawalkar, R., B.K. Colburn, and C. Divekar, *The Power of Energy Information: Web-enabled Monitoring, Control and Benchmarking*, in *Information Technology for Energy Managers*, B.L. Capehart and L.C. Capehart, Editors. 2005, Fairmont Press, Inc.
12. Rubin, E.S., A.B. Rao, and C. Chen, *Comparative Assessments of Fossil Fuel Power Plants with CO<sub>2</sub> Capture and Storage*, in *Proceedings of 7th International Conference on Greenhouse Gas Control Technologies, Volume I: Peer-Reviewed Papers and Overviews*, E.S. Rubin, D.W. Keith, and C.F. Gilboy, Editors. 2005, Elsevier. p. 285-293.
13. Rubin, E.S., D.W. Keith, and C.F. Gilboy, *Proceedings of 7th International Conference on Greenhouse Gas Control Technologies, Volume I: Peer-Reviewed Papers and Overviews*. Vol. 1. 2005: Elsevier.
14. Lave, L.B., J. Apt, and M.G. Morgan, *Increasing the security and reliability of the US electricity system*, in *The Economic Impacts Of Terrorist Attacks*, H.W. Richardson, P. Gordon, and J.E. Moore II, Editor. 2005, Edward Elgar Publishing: Cheltenham. p. 57-69.
15. Ilic, M., *Near-Optimal Decision Making and Working Electricity Markets*. 2005: Kluwer Academic Publishers.
16. Ilic, M., *Automating Operation of Large Electric Power Systems Over Broad Ranges of Supply / Demand and Equipment Status*, in *Applied Mathematics for Restructured Electric Power Systems: Optimization, Control, and Computational Intelligence*, J. Chow, F. Wu, and J. Momoh, Editors. 2005, Kluwer Academic Publishers. p. 323.
17. Strachan, N., *Overview of Distributed Energy*, in *The Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Academic Press: New York.
18. Ilic, M., *Electric Power Systems Engineering: Methods for Normal and Emergency Conditions*, in *The Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Academic Press: New York.
19. Farrell, A. and H. Zerriffi, *Electric Power: Critical Infrastructure Protection*, in *Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Elsevier Science Inc: New York. p. 203-215.
20. Farrell, A., *Clean Air Markets*, in *The Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Academic Press: New York.
21. Farrell, A., *Environmental Impacts of Electricity*, in *The Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Academic Press: New York.

22. Bergerson, J. and L.B. Lave, *Life Cycle Analysis: Power Generation Systems*, in *The Encyclopedia of Energy*, C. Cleveland, Editor. 2004, Academic Press: New York. p. 635-645.
23. Talukdar, S., S. Murthy, and R. Akkiraju, *Asynchronous Teams*, in *Handbook of Metaheuristics*, G.a. Kochenberger, Editor. 2003, Kluwer Academic Publishers.
24. Strachan, N., H. Zerriffi, and H. Dowlatabadi, *System Implications of Distributed Generation: Economics and Robustness*, in *Critical Infrastructures: State of the Art in Research and Application*, W.A.H. Thissen and P.M. Herder, Editors. 2003, Springer: Dordrecht. p. 39-77.
25. Seppi, D., *Risk-Neutral Stochastic Processes for Commodity Derivative Pricing: An Introduction and Survey*, in *Real Options and Energy Management Using Options Methodology to Enhance Capital Budgeting Decisions*, E. Ronn, Editor. 2003, Risk Books.
26. Farrell, A. and M.G. Morgan, *Multi-lateral emission trading: Heterogeneity in domestic and international common pool resource management*, in *The Commons in the New Millennium: Challenges and Adaptation*, N. Dolsak and E. Ostrom, Editors. 2003, MIT Press: Cambridge, MA. p. 169-217.
27. van Vactor, S. and S. Blumsack, *How to Make Power Markets Competitive*, in *Electricity Pricing in Transition*, A. Faruqui and K. Eakin, Editors. 2002, Kluwer Academic Publishing: Boston.
28. Matthews, H.S., L. Lave, and H. MacLean, *Life Cycle Impact Analysis: A Challenge for Risk Analysts*, in *Human and Ecological Risk Assessment: Theory and Practice*, D. Paustenbach, Editor. 2002.
29. Hassol, S., N. Strachan, and H. Dowlatabadi, *Energy Efficiency: A Little Goes a Long Way*, in *Innovative Energy Strategies for CO2 Stabilization*, R.G. Watts, Editor. 2002, Cambridge University Press: Cambridge. p. 87-120.
30. Keith, D. and G. Morgan, *Industrial Carbon Management: A Review of the Technology and its Implications for Climate Policy*, in *Elements of Change 2001*, J. Katzenberger, Editor. 2001, Aspen Global Change Institute: Aspen, CO.
31. Farrell, A.E., *The Political Economy of Interstate Public Policy: Power-Sector Restructuring and Transboundary Air Pollution*, in *Improving Regulation*, S. Farrow and P. Fischbeck, Editors. 2001, RFF Press: Washington, DC. p. 115-141.
32. DeKay, M., K. Florig, P.S. Fischbeck, M.G. Morgan, K.M. Morgan, B. Fischhoff, and K.E. Jenni, *The use of public risk ranking in regulatory policy*, in *Improving regulation: Cases in environment, health, and safety*, P.S. Fischbeck and S. Farrow, Editors. 2001, Resources for the Future: Washington, DC. p. 208—232.

## CEIC Conference Papers

1. Zhu, D. and G. Hug-Glanzmann. *Real-Time Control of Energy Storage Devices in Future Electric Power Systems*. in *PowerTech Conference*. 2011. Trondheim, Norway.
2. Wehinger, L., G. Hug-Glanzmann, M. Galus, and G. Andersson. *Assessing the Effect of Storage Devices and a PHEV Cluster on German Spot Prices by Using Model Predictive and Profit Maximizing Agents*. in *Power Systems Computation Conference*. 2011. Stockholm, Sweden.
3. Rose, S., *Wind Turbine Capacity Factor For Reduced Power Variability*, in *European Wind Energy Conference*. 2011: Brussels.
4. Kankanamalage, R. and G. Hug-Glanzmann. *Transmission Capacity Enhancement by Optimal Usage of Storage Devices*. in *PES General Meeting*. 2011. Detroit, Michigan.
5. Zhu, D., R. Yang, and G. Hug-Glanzmann. *Managing Microgrids with Intermittent Resources: A Two-Layer Multi-Step Optimal Control Approach*. in *North American Power Symposium*. 2010. Arlington, Texas.
6. Xie, L. and M. Ilic. *Carbon-Concerned Economic Dispatch: Possible Formulations and Implementations*. in *2010 IEEE PES Transmission & Distribution Conference*. 2010. New Orleans.
7. Sanchez, M., C. Weber, and H.S. Matthews. *Improving Methods to Estimate Energy and Carbon Footprints of Global Telecommunications*. in *Proceedings of 2010 IEEE International Symposium in Sustainable Systems and Technology*. 2010. Washington, DC.
8. Rose, S. and J. Apt, *The Cost of Curtailing Wind Turbines for Frequency Regulation and Ramp-Rate Limitation*, in *29th USAEE/IAEE North American Conference*. 2010: Calgary.
9. Nealer, R., J. Mankoff, C. Weber, and H.S. Matthews. *Energy and Environmental Implications of Consumer Purchases*. in *Proceedings of 2010 IEEE International Symposium in Sustainable Systems and Technology*. 2010. Washington, DC.
10. Lave, L. and P. Jaramillo. *Load Management Strategies to Support the Grid-Integration of Intermittent Renewable Resources*. in *First RenewElec Integration and Policy Workshop*. 2010.
11. Katzenstein, W. and J. Apt, *The Cost of Wind Power Variability*, in *29th USAEE/IAEE North American Conference*. 2010: Calgary.

12. Jhi-Young, J. and M. Ilic. *Adaptive Load Management (ALM) in Electric Power Systems*. in *2010 IEEE International Conference on Networking, Sensing and Control*. 2010.
13. Jhi-Young, J. and M. Ilic. *A Multi-Layered Adaptive Load Management (ALM) System: Information exchange between market participants for efficient and reliable energy use*. in *2010 IEEE PES Transmission & Distribution Conference*. 2010. New Orleans.
14. Jaramillo, P. and P. Hines. *A Review of Large-Scale Renewable Electricity Integration Studies*. in *First RenewElec Integration and Policy Workshop*. 2010.
15. Hittinger, E., J.F. Whitacre, and J. Apt, *Compensating for Wind Variability Using Co-Located Natural Gas Generation and Energy Storage*, in *29th USAEE/IAEE North American Conference*. 2010: Calgary.
16. Berges, M., L. Soibelman, and H.S. Matthews. *Leveraging Data From Environmental Sensors to Enhance Electrical Load Disaggregation Algorithms*. in *13th International Conference on Computing in Civil and Building Engineering*. 2010. Nottingham, UK.
17. Berges, M., L. Soibelman, H.S. Matthews, and E. Goldman. *Evaluating the electric consumption of residential buildings: current practices and future prospects*. in *Construction Research Congress 2010*. 2010. Banff, Alberta.
18. Berges, M., L. Soibelman, and H.S. Matthews. *Learning Based Systems for Residential Electricity Metering*. in *Proceedings of 2010 IEEE International Symposium in Sustainable Systems and Technology*. 2010. Washington, DC.
19. Xie, L. and M. Ilic. *Model Predictive Economic/Environmental Dispatch of Power Systems with Intermittent Resources*. in *IEEE Power and Energy Society General Meeting*. 2009.
20. Prica, M., M. Ilic, and J. Ilic. *On the Fundamental Importance of Relating Operating and Planning Objectives in the Changing Electric Power Industry*. in *2009 40th North American Power Symposium*. 2009.
21. Peterson, S., J. Whitacre, and J. Apt. *PHEV Battery Performance in a Vehicle to Grid (V2G) Utilization Scenario: a Technological and Economic Analysis*. in *5th Annual Lithium Mobile Power Conference*. 2009. Boston.
22. Nazari, M. and M. Ilic. *Technical Challenge in Modernizing Distribution Electric Power Systems with Large Number of Distributed Generators*. in *2009 IEEE Power & Energy Society General Meeting*. 2009.
23. Nagengast, A., D. Picklesimer, H.S. Matthews, and H. Bojja. *Planning Eco-Sustainable Facilities by Examining Renewable Energy Availability and the*

*Corresponding Business Case*. in *American Society for Energy-Efficient Economy (ACEEE)*. 2009. Tempe, AZ.

24. Houwing, M., M. Ilic, R. Negenborn, and B. DeSchutter. *Model predictive control of fuel cell micro cogeneration systems*. in *Proceedings of the IEEE International Conference on Networking, Sensing and Control*. 2009. Okayama City, Japan.
25. Berges, M., E. Goldman, H.S. Matthews, and L. Soibelman. *Learning systems for electric consumption of buildings*. in *ASCE International Workshop on Computing in Civil Engineering*. 2009. Austin, Texas.
26. Zhiyong, W. and M. Ilic. *The effects of multi-temporal electricity markets on short- and long-term bidding*. in *2008 IEEE Power and Energy Society General Meeting - Confersion and Delivery of Electrical Energy in the 21st Century*. 2008.
27. Xie, L. and M. Ilic. *A module-based approach to integrating wind power for guaranteed power system stability*. in *International Conference on Infrastructure Systems 2008*. 2008. Rotterdam, Netherlands.
28. Xie, L. and M. Ilic. *Model predictive dispatch in electric energy systems and intermittent resources*. in *IEEE SMC 2008 Conference*. 2008.
29. Walawalkar, R., S. Blumsack, J. Apt, and S. Fernands, *A Social Welfare Analysis of Economic Demand Response in PJM*, in *Rutgers Center for Research in Regulated Industries, 27th Advanced Workshop in Regulation and Competition*. 2008: Skytop PA.
30. Walawalkar, R., S. Blumsack, J. Apt, and S. Fernands. *Analyzing PJM's Economic Demand Response Program*. in *IEEE Power Engineering Society General Meeting*. 2008. Pittsburgh.
31. Targert, A. and B. Morel. *Are free and open source security tools enough for developing economies cybersecurity*. in *Global Information Technology Management Association*. 2008. Atlanta, Georgia.
32. Samaras, C., C. Hendrickson, H.S. Matthews, and G.M. Morgan. *Policies to Promote Plug-In Hybrid Electric Vehicles for Greenhouse Gas Emissions Reductions adnd Oil Displacement (09-3077)*. in *Transportation Research Board*. 2008. Washington.
33. Ricke, K., T. Aina, M. Allen, J. Apt, M.G. Morgan, J. Steinbruner, P. Stier, and D. Victor, *International Collective Governance and the Need to Reduce Scientific Uncertainty about Geoengineering*, in *American Geophysical Union Annual Meeting*. 2008: San Francisco.
34. Newcomer, A., S. Blumsack, J. Apt, L. Lave, and M.G. Morgan. *Electricity Price and Carbon Dioxide Emissions: Effects of a Carbon Price in the Short Term*. in

- 41st Annual Hawaii International Conference on System Sciences*. 2008. Kona, Hawaii: Computer Society Press.
35. Morel, B. *Anomaly-based intrusion detection using distributed intelligent systems*. in *Proceedings of the 3rd Conference Risks and Security of the Internet and Systems, Tunis*. 2008. Tozeur, Tunisia.
  36. McCoy, S.T. and E.S. Rubin. *The Effect of High Oil Prices on EOR Project Economics*. in *Proceedings of the 9<sup>th</sup> International Conference on Greenhouse Gas Control Technologies*. 2008: Elsevier.
  37. McCoy, S.T. and E.S. Rubin. *Variability and Uncertainty in the Cost of Saline Formation Storage*. in *Proceedings of the 9<sup>th</sup> International Conference on Greenhouse Gas Control Technologies*. 2008: Elsevier.
  38. Mantripragada, H.C. and E.S. Rubin. *CO<sup>2</sup> Reduction Potential of Coal-to-Liquids (CTL) Plants*. in *Proceedings of the 9<sup>th</sup> International Conference on Greenhouse Gas Control Technologies*. 2008: Elsevier.
  39. Liu, J., B.H. Krogh, and M. Ilic. *Saturation -induced frequency instability in electric power systems*. in *2008 IEEE Power and Energy Society General Meeting Conversion and Delivery of Electrical Energy in the 21st Century*. 2008.
  40. Kurlinski, R., L. Lave, and M. Ilic. *Creating Reliability Choice: How Building Less Reliability into Electric Power Grids Could Improve the Welfare of All Customers*. in *IEEE Power and Energy Society General Meeting*. 2008. Pittsburgh.
  41. Kurlinski, R., L. Lave, and M. Ilic. *Creating reliability choice: how building less reliability into electric power grids could improve the welfare of all customers*. in *IEEE Power and Energy Society General Meeting - Conversion and Delivery of Electrical Energy in the 21st Century*. 2008.
  42. Houwing, M. and M. Ilic. *The value of IT for virtual power plants with micro cogeneration systems*. in *IEEE-SMC Conference, Engineering Cyber-Physical Ecosystems workshop*. 2008.
  43. Hines, P. and S. Blumsack. *A Centrality Measure for Electricity Networks*. in *41st Hawaii International Conference on System Sciences*. 2008. Waikoloa, Hawaii.
  44. Hines, P., J. Apt, and S. Talukdar. *Trends in the History of Large Blackouts in the United States*. in *IEEE Power Engineering Society General Meeting*. 2008. Pittsburgh: IEEE.
  45. Blumsack, S., C. Samaras, and P. Hines. *Long-Run Electric System Investments to Support Low-Emissions Plug-in Electric Hybrid Vehicles*. in *IEEE Power Engineering Society General Meeting*. 2008. Pittsburgh.

46. Blumsack, S., L. Lave, and J. Apt, *Costs and Prices for Electric Utilities Under Regulation and Restructuring*, in *Sloan Industry Studies Conference*. 2008: Boston.
47. Blood, E., B.H. Krogh, and M. Ilic. *Electric power system static state estimation through Kalman filtering and load forecasting*. in *2008 IEEE power and Energy Society General Meeting-Conversion and Delivery of Electrical Energy in the 21st Century*. 2008.
48. Apt, J., L.B. Lave, and M.G. Morgan, *Worst Case Electricity Scenarios: The Benefits & Costs of Prevention*, in *Society for Risk Analysis Annual Meeting*. 2008: Boston.
49. Apt, J. and W. Katzenstein. *The Character of Wind Power Variability and its Effects on Fill-In Power*. in *7th International Workshop on Large-Scale Integration of Wind Power into Power Systems*. 2008. Madrid.
50. Samaras, C. and K. Meisterling, *Plug-in hybrids for sustainable transportation: Environmental, Infrastructure, and Policy Challenges*, in *Engineering Sustainability 2007*. 2007: Pittsburgh, PA.
51. Rubin, E.S., S.T. McCoy, and J. Apt. *Regulatory and Policy Needs for Geological Sequestration of Carbon Dioxide*. in *Sixth Annual Conference on Carbon Capture & Sequestration*. 2007. Pittsburgh.
52. Morrow, W.R., D. Hanson, and P. Balash, *Comparing alternative uses of scarce biomass energy resources using the AMIGA model*, in *27th Annual conference of the USAEE/IAEE*. 2007: Houston TX.
53. Curtright, A. and J. Apt. *Power Fluctuations from Large Solar Photovoltaic Arrays*. in *National Solar Energy Conference*. 2007. Cleveland, Ohio.
54. Blumsack, S. *The Fundamental Problem with Merchant Transmission*. in *26th Advanced Workshop on Regulation and Competition, Center for Research in Regulated Industries*. 2007. Skytop, PA.
55. Azevedo, I.M.L. *Energy Efficiency and Conservation: A Bright Idea with Solid State Lighting?* in *Proceedings of the European Council for an Energy Efficient Economy Summer Study*. 2007. La Colle sur Loup, France.
56. Apt, J., *Controlling Carbon in the US Electricity Sector (Invited talk)*, in *American Association for the Advancement of Science Annual Meeting, Special Session on Carbon Management*. 2007: San Francisco.
57. Apt, J., *Controlling Climate in the US Electricity Sector (Invited talk)*, in *National Association of Regulatory Utility Commissioners*. 2007: Baltimore, MD.

58. Xie, L., J. Ilic, and M. Ilic. *Towards Grid Modernization through Enhanced Communications and Computing: Novel Performance Index and Information Structure for Monitoring Voltage Problems*. in *Power Symposium, 2006. NAPS 2006. 38th North American*. 2006. Carbondale, IL, USA.
59. Stolaroff, J.K., D.W. Keith, and G.V. Lowry. *A pilot-scale prototype contactor for CO<sub>2</sub> capture from ambient air: cost and energy requirements*. in *8th International Conference on Greenhouse Gas Control Technologies*. 2006. Trondheim, Norway.
60. Samaras, C., *Technical change and public policies affecting wind power's past, present, and future*, in *Windpower 2006, American Wind Energy Association*. 2006: Pittsburgh, PA.
61. Samaras, C. *Learning from wind: A framework for effective low-carbon energy diffusion*. in *World Renewable Energy Congress 2006 (WREC IX)*. 2006. Florence, Italy: Elsevier.
62. Peters, G., T. DiGioia, C.T. Hendrickson, and J. Apt. *Transmission Line Reliability: Climate Change and Extreme Weather*. in *American Society of Civil Engineers 2006 Electrical Transmission Conference: Structural Reliability in a Changing World*. 2006. Birmingham, AL.
63. McCoy, S.T. and E.S. Rubin. *A model of CO<sub>2</sub>-flood enhanced oil recovery with applications to oil price influence on CO<sub>2</sub> storage costs*. in *8th International Conference on Greenhouse Gas Control Technologies*. 2006. Trondheim, Norway.
64. Le, Y. and K. Florig, *Modeling the Operation and Maintenance Costs of a Large Scale Tidal Current Turbine Farm*, in *OCEANS'06 MTS/IEEE "Revolutionizing Marine Science and Technology"*. 2006, Carnegie Mellon University: Boston. p. 6.
65. Ilic, M. and F. Wu. *Toward the Value-Based Generation Investments and Utilization: Stratum Electricity Market*. in *North American Power Symposium*. 2006. Carbondale, IL.
66. Ilic, M. and A. Thatte. *An Assessment of Reactive Power/Voltage Control Devices in Distribution Networks*. in *IEEE General Power Meeting*. 2006. Montreal.
67. Ilic, M., M. Prica, and Y. Zhang. *Toward Smarter Current Relays for Power Grids*. in *IEEE General Power Meeting*. 2006. Montreal.
68. Ilic, M., M. Prica, O. Tonguz, and Y. Zhang. *Imbedding Smart Relays in Large Electric Power Networks: The Scalability Problem and a Possible Solution*. in *North American Power Symposium*. 2006. Carbondale, IL.

69. Ilic, M. and M. Prica. *Peak-Load Pricing Based Planning for Distribution Networks Under Change*. in *IEEE General Power Meeting*. 2006. Montreal.
70. Ilic, M., A. Minoia, D. Ernst, M. Dicorato, and M. Trovato. *Reference Transmission Network: A Game Theory Approach*. in *IEEE General Power Meeting*. 2006. Montreal.
71. Ilic, M., L. Lave, and S. Blumsack. *Assessing the Tradeoffs Between Congestion and Reliability in Electric Power Networks*. in *USAEE/IAEE 26th North American Conference*. 2006. Ann Arbor.
72. Ilic, M., J. Lang, X. Luo, and E. Litvinov. *The Critical Role of Computationally Robust Optimal AC Power Flow in Reliable and Efficient Voltage/Reactive Power Dispatch*. in *Power Systems Conference and Expo*. 2006. Atlanta.
73. Ilic, M., J. Ilic, and L. Xie. *Critical Voltage Monitoring Using Sensitivity and Optimal Information Machine Learning*. in *North American Power Symposium*. 2006. Carbondale, IL.
74. Ilic, M., J. Ilic, and L. Xie. *Towards Grid Modernization through Enhanced Communications and Computing: Novel Performance Index and Information Structure for Monitoring Voltage Problems*. in *North American power Symposium*. 2006. Carbondale, IL.
75. Ilic, M., M. Elizonda, and P. Marcado. *Determining the Cost of Dynamic Control Capacity for Improving System Efficiency*. in *IEEE General Power Meeting*. 2006. Montreal.
76. Ilic, M., E. Blood, J. Ilic, and B.H. Krogh. *A Kalman Filter Approach to Quasi-Static State Estimation in Electrical Power Systems*. in *North American Power Symposium*. 2006. Carbondale, IL.
77. Ilic, M. *ENTASK: Energy-Temporal and Structural Kit*. in *North American Power Symposium*. 2006. Carbondale, IL.
78. Hines, P., J. Apt, H. Liao, and S. Talukdar. *The Frequency of Large Blackouts in the U.S. Electrical Transmission System*. in *Monitoring, Sensing, Software and Its Valuation for the Changing Electric Power Industry*. 2006. Pittsburgh, PA.
79. Hines, P., *The Frequency of Large Blackouts in the United States*, in *IEEE Power Engineering Society General Meeting*. 2006: Montreal.
80. Chen, C., E.S. Rubin, and M.B. Berkenpas, *CO2 Control Technology Effects on IGCC Plant Performance and Cost*, in *Pittsburgh Coal Conference*. 2006: Pittsburgh.
81. Blumsack, S., *Congestion and Reliability are not Independent*, in *IAEE North American Conference*. 2006: Ann Arbor.

82. Blumsack, S., *Tradeoffs Between Congestion and Reliability in Electric Power Networks*, in *IEEE Power Engineering Society Meeting*. 2006: Montreal.
83. Bergerson, J. and L. Lave, *Life cycle environmental costs of advanced coal-fired generating plants*, in *Society for Risk Analysis 2006 Annual Meeting: Risk Analysis in a Dynamic World: Making a Difference*. 2006: Baltimore.
84. Azevedo, I.M.L., *Electricity Prices and Residential Electricity Consumption: A US/EU Comparison*, in *IAEE North American Conference*. 2006: Ann Arbor.
85. Apt, J., J. Bergerson, S. Blumsack, S. Eggers, and L. Lave, *Managing electricity infrastructure in an era of frequent hurricanes*, in *Society for Risk Analysis 2006 Annual Meeting: Risk Analysis in a Dynamic World: Making a Difference*. 2006: Baltimore.
86. Apt, J., *The risks of integrating wind power into an electric power system*, in *Society for Risk Analysis 2006 Annual Meeting: Risk Analysis in a Dynamic World: Making a Difference*. 2006: Baltimore.
87. Apt, J., *Understanding the Effects of Electricity Restructuring*, in *American Public Power Association 2006 Business & Financial Conference*. 2006: Minneapolis.
88. Apt, J. *The Spectrum of Power from Wind Turbines*. in *Monitoring, Sensing, Software and Its Valuation for the Changing Electric Power Industry*. 2006. Pittsburgh, PA.
89. Walawalkar, R., H. Kamath, and R. Mancini, *Electric Energy Storage in Competitive Electricity Markets: Opportunities and Challenges*, in *Annual Meeting of the Energy Storage Association*. 2005: Toronto.
90. Walawalkar, R., H. Kamath, and R. Mancini, *Electric Energy Storage: Opportunities and Challenges in NY*, in *Electric Energy Storage Applications and Technologies (EESAT 2005)*. 2005: San Francisco.
91. Talukdar, S., D. Jia, P. Hines, and B.H. Krogh. *Distributed Model Predictive Control for the Mitigation of Cascading Failures*. in *44th IEEE Conference on Decision and Control*. 2005. Seville, Spain.
92. Patiño-Echeverri, D. and B. Morel. *The Fair Value of Operational Reliability*. in *7th IAEE European Energy Markets Conference*. 2005. Bergen, Norway.
93. Meisterling, K. *Animal Manure to Power*. in *NRECA Cooperative Research Network*. 2005. Lakeland, FL.
94. McCoy, S.T. and E.S. Rubin. *Models of CO<sub>2</sub> Transport and Storage Costs and Their Importance in CCS Cost Estimates*. in *Fourth Annual Conference on Carbon Capture and Sequestration*. 2005. Alexandria, Virginia.

95. Marriott, J., H.S. Matthews, J. Apt, and L.B. Lave. *Creating an Electricity-Focused Economic Input-Output Tool for Life-Cycle Analysis*. in *2005 International Society for Industrial Ecology Conference*. 2005. Stockholm, Sweden.
96. Lave, L.B., J. Apt, A. Farrell, and M.G. Morgan. *Worst Case Electricity Scenarios: The Benefits & Costs of Prevention*. in *CREATE*. 2005. University of Southern California, Los Angeles.
97. Ilic, M., *Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry*, in *IEEE NSC2005 Special Session on Intelligent Infrastructures*. 2005: Tuscon.
98. Ilic, M. *Discussion o the Paper by Michael Crew, 'Reliability and Service Quality in Network Industries'*. in *In Honor of Paul Kleindorfer: Recent Advances in Operations and Risk Mangement*. 2005.
99. Ilic, M. *Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry*. in *IEEE NSC2005 Special Session on Intelligent Infrastructures*. 2005. Tuscon.
100. Hines, P., H. Liao, D. Jia, and S. Talukdar. *Autonomous Agents and Cooperation for the Control of Cascading Failures in Electric Grids*. in *IEEE Conference on Networking, Sensing, and Control*. 2005. Tucson.
101. Bergerson, J.A. and L.B. Lave. *Alternatives to the Transport of Energy in the U.S.* in *Transportation Research Board Annual Meeting*. 2005. Washington, D.C.
102. Bergerson, J.A. and L.B. Lave. *Incorporation of Life Cycle Assessment in Future Energy Scenario Analysis*. in *International Society of Industrial Ecology Conference*. 2005. Stockholm, Sweden.
103. Ashworth, M. *Electric Power Industry Workforce Aging: A Contextual View (Keynote address)*. in *The Aging Workforce: What's Working - What's Not (electric utility conference sponsored by EUCI)*. 2005. St. Louis, MO.
104. Zerriffi, H. *Quantifying the Robustness of Centralized Versus Distributed System Energy Systems*. in *24th North American Conference of the United States Association of Energy Economics and International Association of Energy Economics*. 2004. Washington.
105. Walawalkar, R., B.K. Colburn, J. Jakubiak, and R. Modak, *Advanced metering & billing strategies for DSM*, in *Metering, Billing and CRM/CIS Americas*. 2004: San Diego.
106. Walawalkar, R. and B.K. Colburn. *Global Emission Trading: Opportunities and Challenges for ESCO's*. in *World Energy Engineering Congress*. 2004. Austin, Texas.

107. Walawalkar, R. and B.K. Colburn. *Harnessing the Power of Energy Information*. in *World Energy Engineering Congress*. 2004. Austin, Texas.
108. Talukdar, S. *Cascading Failures, Phase Transitions, Distributed Model Predictive Control, and Cooperation*. in *2004 Control and Decision Conference*. 2004. Paradise Island.
109. Strachan, N. *Economic and Emissions Implications of a Distributed Energy Architecture*. in *GHG-T 7 Conference*. 2004. Vancouver, Canada.
110. Strachan, N. *Setting Sequential Targets using Projected GHG Intensities*. in *International Energy Agency International Energy Workshop*. 2004. Paris.
111. Strachan, N. *U.S. Energy Scenarios and Market Consequences without Climate Policies*. in *24th Annual Meeting of the U.S. Association of Energy Economists*. 2004. Washington, DC.
112. Riahi, K., L. Barreto, S. Rao, and E.S. Rubin. *Towards Fossil-Based Electricity Systems with Integrated CO<sub>2</sub> Capture: Implications of an Illustrative Long-Term Technology Policy*. in *7th International Conference on Greenhouse Gas Control Technologies*. 2004. Vancouver: Elsevier.
113. Patiño-Echeverri, D., Z. Wu, and M. Ilic. *Clean Air and Affordable Electricity*. in *36th Annual North American Power Symposium*. 2004. Moscow, Idaho: IEEE Power Engineering Society.
114. Minoia, A., D. Ernst, and M. Ilic. *Market dynamics driven by the decision-making of both power producers and transmission owners*. in *IEEE Power Engineering Society General Meeting GM04*. 2004. Denver.
115. Liao, H., J. Apt, and S. Talukdar. *Phase Transitions in the Probability of Cascading Failures*. in *Electricity Transmission in Deregulated Markets: Challenges, Opportunities, and Necessary R&D Agenda*. 2004. Pittsburgh, PA.
116. Hines, P. and S. Talukdar. *Reducing the Costs of Disturbances to the Electric Power Network*. in *24th North American Conference, International Association of Energy Economics*. 2004. Washington, D.C.
117. Hines, P., D. Jia, and S. Talukdar. *Distributed Model Predictive Control for Electric Grids*. in *Electricity Transmission in Deregulated Markets: Challenges, Opportunities, and Necessary R&D Agenda*. 2004. Pittsburgh.
118. Ernst, D., A. Minoia, and M. Ilic. *Market dynamics driven by the decision-making power producers*. in *IEEE Power Engineering Society General Meeting GM04*. 2004. Denver.

119. Cardell, J. and M. Ilic. *Maintaining Stability with Distributed Generation in a Restructured Industry*. in *IEEE Power Engineering Society General Meeting GM04*. 2004. Denver.
120. Blumsack, S. and L. Lave. *Mitigating Market Power in Deregulated Electricity Markets*. in *24th North American Conference, International Association of Energy Economics*. 2004. Washington, D.C.
121. Blumsack, S. *Market Power in U.S. Electricity Markets: Measurement Issues and Mitigation Costs*. in *3rd Annual Technology, Policy, and Management Consortium*. 2004. Cambridge, U.K.
122. Bergerson, J. *Should We Transport Coal or Electricity: Cost, Efficiency & Environmental Implications*. in *Gordon Research Conference on Industrial Ecology*. 2004. Oxford, UK.
123. Talukdar, S., L. Lave, K.W. Lye, K.C. Marshall, and E. Subrahmanian. *Agents Evolutionary Learning And Market Failure Modes*. in *Hawaii International Conference on Systems Science*. 2003. Manoa, Hawaii: Computer Society Press.
124. Strachan, N. and H. Dowlatabadi. *Supplier Strategies and Responses to Institutional Drivers for an Emerging Energy Technology*. in *International Energy Workshop, IIASA*. 2003. Vienna.
125. Farrell, A. and H. Zerriffi. *Improving Energy Infrastructure Security: Costs and Consequences*. in *26th International Conference of the International Association of Energy Economists*. 2003. Prague.
126. Bergerson, J., L. Lave, C. Hendrickson, H.S. Matthews, and A. Farrell. *Transport of Coal by Rail vs. Transmission for Electricity Generation: An Application of Hybrid LCA Comparative Analysis*. in *International Life Cycle Assessment and Life Cycle Management: A Bridge to a Sustainable Future*. 2003. Seattle, Washington.
127. Bergerson, J. and L. Lave. *Transport of Coal by Rail vs. Transmission for Electricity Generation: An Application of Hybrid LCA Comparative Analysis*. in *Twentieth Annual International Pittsburgh Coal Conference*. 2003. Pittsburgh, Pennsylvania.
128. Zerriffi, H., H. Dowlatabadi, and N. Strachan. *System Implications of Distributed Generation: Economics and Robustness*. in *International Energy Workshop*. 2002. Stanford CA.
129. Visudhiphan, P., M. Ilic, and M. Mladjan. *On the Complexity of Market Power Assessment in the Electricity Spot Markets*. in *Proceedings of the IEEE PES Winter Power Meeting*. 2002. New York, NY.

130. Strachan, N. and A. Farrell. *Emissions from Distributed Generation*. in *Utilities Environment Conference*. 2002. Tucson, AZ.
131. Rubin, E.S. and A.B. Rao. *Uncertainties in CO<sub>2</sub> capture and Sequestration Costs*. in *Proc. 6th Conf. On Greenhouse Gas Control Technologies (GHGT-6)*. 2002. Kyoto, Japan: International Energy Agency, Cheltenham, UK.
132. Keith, D. and M.G. Morgan. *Industrial Carbon Management: A review of the technology and its implications for climate policy*. in *Elements of Change 2000*. 2002. Aspen Global Change Institute, Aspen, CO.
133. Jia, D. and B.H. Krogh. *Min-max feedback model predictive control for distributed control with communication*. in *2002 American Control Conference*. 2002.
134. DeCarolis, J. and D.W. Keith. *Is the Answer to Climate Change Blowing in the Wind?* in *Proceedings of the first International Doctoral Consortium on Technology, Policy, and Management*. 2002. Delft, The Netherlands, Delft University.
135. Botterud, A., A.K. Bhattacharyya, and M. Ilic. *Futures and spot prices an analysis of the Scandinavian electricity market*. in *Proceedings of North American Power Symposium 2002*. 2002. Tempe, AZ: IEEE.
136. Black, J.W., J. Watz, and M. Ilic. *Potential Benefits of Implementing Load Control*. in *Proceedings of the IEEE PES Winter Power Meeting*. 2002.
137. Zerriffi, H., H. Dowlatabadi, and N. Strachan. *Electricity and Conflict: An Evaluation of Distributed Co-Generation as an Economic and Reliable Solution*. in *5th International Conference on Technology, Policy and Innovation (Critical Infrastructures)*. 2001. Hague, Netherlands.
138. Taylor, M., E.S. Rubin, and D.A. Hounshell. *The Effect of Government Actions on Technological Innovation for SO<sub>2</sub> Control*. in *Proceedings of the EPA-DOE-EPRI Mega Symposium*. 2001. Chicago, IL: EPRI, Palo Alto, CA.
139. Talukdar, S. and E. Camponogara. *Network Control as a Distributed Dynamic Game (Best Paper Award)*. in *Hawaii International Conference on Systems Science*. 2001. Manoa, Hawaii: Computer Society Press.
140. Strachan, N. *Distributed Generation and Path Dependence*. in *5th International Conference on Technology and Policy Innovation*. 2001. The Hague, The Netherlands.
141. Rubin, E.S., M.B. Berkenpas, G.A. Gibbon, and D.N. Smith. *Multi-Pollutant Emission Control of Electric Power Plants*. in *Proceedings of the EPA-DOE-EPRI Mega Symposium*. 2001. Chicago, IL: EPRI, Palo Alto, CA.

142. Rubin, E.S., M.B. Berkenpas, A. Farrell, G.A. Gibbon, and D.N. Smith. *Controlling Multiple Pollutants from Coal-Fired Electric Power Plants*. in *Proceedings of U.S. China Clean Energy Technology Conference*. 2001. Beijing, China.
143. Berkenpas, M.B., E.S. Rubin, D.N. Smith, and G.A. Gibbon. *Preliminary Cost and Performance Models for Mercury Control at Coal-Fired Power Plants*. in *Proceedings of the EPA-DOE-EPRI Mega Symposium*. 2001. Chicago, IL: EPRI, Palo Alto, CA.

## CEIC Reports

1. Katzenstein, W. and J. Apt, *Thermal Plant Emissions Due to Intermittent Renewable Power Integration*, in *NETL Energy Analysis Publications*. 2011, National Energy Technology Laboratory.
2. Lave, L.B., M.L. Savitz, R.S. Berry, M.A. Brown, L.R. Cohen, M.G. Craford, P.A. DeCotis, J.H. DeGraffenreidt, H. Geller, D.B. Goldstein, A. MacLachlan, W.F. Powers, A.H. Rosenfeld, and D. Sperling, *Real Prospects for Energy Efficiency in the United States*, in *America's Energy Future*. 2010, National Academy Press: Washington. 329 pages.
3. Bissell, P., P. Findle, J. Ratafia-Brown, R. Lenhart, and J. Apt, *Coal-Wind Integration Strategy: A scoping study investigating a coordinated approach to U.S. coal and wind resources*. 2009, National Energy Technology Laboratory: Pittsburgh, PA. p. 110.
4. Walawalkar, R. and J. Apt, *Market Analysis of Emerging Electric Energy Storage Systems*. 2008, National Energy Technology Laboratory. p. 118.
5. Spees, K., L.B. Lave, and J. Apt, *Long-Term Investment Decisions for Providing Electric Power in Puerto Rico*. 2008, Carnegie Mellon Electricity Industry Center: Pittsburgh. p. 66.
6. Pena, N. and E.S. Rubin, *A Trust Fund Approach to Accelerating Deployment of CCS: Options and Considerations*, in *Coal Initiative White Paper Series*. 2008, Pew Center on Global Climate Change: Arlington.
7. Morgan, M.G., S.T. McCoy, D. Ancel, S. Angielski, J. Apt, S. Bergan, K. Bush, D. Carter, K. Danish, S.M. Day, M. Dworkin, P. Fischbeck, S. Fotis, D. Gerard, R.L. Gresham, P. Joy, A. Klauss, D. Kreis, M. Latham, L. Lave, A. Lotlikar, R. Nordhous, E. Pitlick, M. Pollak, E.S. Rubin, D. Smith, K. Twaite, E. Whitmore, E.J. Wilson, and B. Yamagata, *Carbon Capture and Sequestration: Framing the Issues for Regulation, An Interim Report from the CCSReg Project*. 2008. p. 155.
8. Apt, J., A. Newcomer, L.B. Lave, S. Douglas, and L.M. Dunn, *An Engineering-Economic Analysis of Syngas Storage*. 2008, National Energy Technology Laboratory. p. 143.
9. Apt, J., L.B. Lave, and S. Pattanariyankool, *Generating Electricity from Renewables: Crafting Policies that Achieve Society's Goals*. 2008, National Rural Electric Cooperative Association. p. 40.
10. Rubin, E.S., S.T. McCoy, and J. Apt, *Regulatory and Policy Needs for Geological Sequestration of Carbon Dioxide*. 2007, International Risk Governance Council. p. 14.

11. Apt, J., R.L. Gresham, M.G. Morgan, and A. Newcomer, *Incentives for Near-Term Carbon Dioxide Geological Sequestration*. 2007, The Gasification Carbon Management Work Group: Washington. p. 68.
12. Apt, J., S. Blumsack, and L.B. Lave, *Competitive Energy Options for Pennsylvania*. 2007, Team Pennsylvania Foundation: Harrisburg, Pennsylvania. p. 95.
13. Apt, J., D. Hoffmann, H. Kunreuther, E. Michel-Kerjan, and M.G. Morgan, *The Insurance Industry and Climate Change*. 2006, Carnegie Mellon University: Pittsburgh. p. 19.
14. Morgan, M.G., J. Apt, and L.B. Lave, *The U.S. Electric Power Sector and Climate Change Mitigation*. 2005, Pew Center for Global Climate Change: Washington. p. 84.
15. Meisterling, K., *Animal Manure to Power: potential environmental and economic benefits*. 2005, Cooperative Research Network (CRN), National Rural Electric Cooperative Association.
16. Blumsack, S., J. Apt, and L.B. Lave, *Comments on Wholesale and Retail Electricity Competition, Docket No. AD05-17-000*. 2005, Electric Energy Market Competition Interagency Task Force and the Federal Energy Regulatory Commission: Washington, D.C. p. 27.
17. Apt, J. and M.G. Morgan, *Critical Electric Power Issues in Pennsylvania: Transmission, Distributed Generation, and Continuing Services when the Grid Fails*. 2005, Commonwealth of Pennsylvania: Harrisburg, Pennsylvania. p. 102.
18. Apt, J. and L.B. Lave, *Electricity Options for Large Industrial Customers in Western Pennsylvania*. 2005, Allegheny Conference on Community Development: Pittsburgh, PA. p. 28.
19. King, D. and G.M. Morgan, *The Regulatory Environment for Small Independent Micro-grid Companies*. 2004.
20. Farrell, A., H. Zerriffi, M. Ilic, and S. Talukdar, *White Paper on R&D for Security and Survivability in the Electricity Industry*. 2002, U.S. Department of Energy: Washington.
21. Farrell, A., *Trading Expands, Increasingly Affects Gas and Power.*, in *Natural Gas & Electric Power Industries Analysis*. 2002, Financial Communications Company: Houston. p. pp. 101-113.
22. Routledge, B., D. Seppi, and C. Spatt, *The Spark Spread: A Equilibrium Model of Cross-Commodity Price Relationships in Electricity*. 2001.