Ramteen Sioshansi

Office

Wean Hall 5120
311 Hamerschlag Drive
Pittsburgh, PA 15260

Contact Information

Department of Engineering and Public Policy
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213-3815
rsioshan@andrew.cmu.edu
https://epp.engineering.cmu.edu/directory/bios/sioshansi-ramteen.html

Professional Experience

Carnegie Mellon University

Professor; Heinz College of Information Systems and Public Policy; 2025–Present
Associate Department Head for Graduate Affairs; Department of Engineering and Public Policy; 2024–Present
Professor; Department of Engineering and Public Policy; 2023–Present
Director; Carnegie Mellon Electricity Industry Center; 2023–Present
Professor; Department of Electrical and Computer Engineering; 2023–Present
Faculty Affiliate; Wilton E. Scott Institute for Energy Innovation; 2023–Present

The Ohio State University

Adjunct Professor; Department of Integrated Systems Engineering; 2023–Present
Professor; Department of Electrical and Computer Engineering; 2021–2022
Director; EmPOWERment National Science Foundation (NSF) Research Traineeship (NRT) Program; 2019–2022
Professor; Department of Integrated Systems Engineering; 2018–2022
Associate Fellow; Center for Automotive Research; 2012–2022
Associate Department Chair; Department of Integrated Systems Engineering; 2018–2021
Faculty Affiliate Member; Center for Energy Research, Training, and Innovation; 2019–2020
Associate Professor; Department of Integrated Systems Engineering; 2014–2018
Assistant Professor; Department of Integrated Systems Engineering; 2008–2014

Power Systems Engineering Research Center

Adjunct Researcher; 2023–Present

Technische Universität Dresden

Distinguished Research Fellow; Lehrstuhl für Energiewirtschaft, Fakultät Wirtschaftswissenschaften; 2021–2022
Visiting Professor; Lehrstuhl für Energiewirtschaft, Fakultät Wirtschaftswissenschaften; 2016

Université Paris-Saclay

Erasmus Mundus Visiting Professor; CentraleSupélec; 2013

National Renewable Energy Laboratory

Postdoctoral Researcher; Strategic Energy Analysis and Applications Center; 2007–2008

University of California, Berkeley

Postdoctoral Researcher; Engineering Research Center; 2007–2008
Graduate Student Researcher; Electronics Research Laboratory; 2001–2007

Federal Energy Regulatory Commission

Economist; Office of Energy Markets and Reliability; 2006

Education

University of California, Berkeley

PhD, Industrial Engineering and Operations Research, Spring 2007
Minors: Economics, Game Theory, and Probability Theory
Dissertation Title: Design and Analysis of Electricity Markets
Committee: Shmuel Oren (chair), Ilan Adler, Richard Gilbert

University of California, Berkeley

MS, Industrial Engineering and Operations Research, Spring 2004

University of London, London School of Economics and Political Science

MSc, Econometrics and Mathematical Economics, July 2002

University of California, Berkeley

BA, Economics and Applied Mathematics, Spring 2001

Research Interests

Optimization · energy sustainability · energy resilience · energy reliability · energy economics · energy policy · market and mechanism design · game theory · decision science

Honors and Awards

- ❑ 2025 INFORMS ENRE Student Best Paper Award for the paper "Adaptive Robust Optimization with Data-Driven Uncertainty for Enhancing Distribution System Resilience."
- ❑ ScholarGPS Lifetime Highly Ranked Scholar (Energy Storage and Energy)
- ❑ 2023 IEEE PES Prize Paper Award for the paper "Energy-Storage Modeling: State-of-the-Art and Future Research Directions." Awarded by Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society (PES) for the best paper published during previous three years in an IEEE PES journal or magazine.
- ❑ 2023 Academic Lifetime Achievement Award. Awarded by Energy Systems Division of Institute of Industrial and Systems Engineers. For contributions to the broad impact on energy systems.
- ❑ 2023 IEEE PES PSOPE Outgoing Subcommittee Chair Recognition for chairing Power System Economics Subcommittee of Institute of Electrical and Electronics Engineers Power and Energy Society Power System Operation, Planning and Economics Committee.
- ❑ 2023 IEEE PES PSOPE Technical Committee Prize Paper Award for the paper "Energy-Storage Modeling: State-of-the-Art and Future Research Directions." Awarded by Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society (PES) Power System Operation, Planning and Economics Committee for the best paper published during previous three years in an IEEE PES journal or magazine.
- ❑ 2023–2026 Fulbright Specialist Roster.
- ❑ 2023–2025 Sigma Xi Distinguished Lecturer.
- ❑ 2021 Institute of Electrical and Electronics Engineers Fellow Class. For contributions to energy storage in electric power systems.
- ❑ 2021 Top 2% of Scientists, Elsevier.
- ❑ 2021 Excellent Associate Editor Award, *Journal of Modern Power Systems and Clean Energy.*

- ❑ 2021 China Society for Electrical Engineering Best Paper Award (Third Place), for the paper "A Vector Autoregression Weather Model for Electricity Supply and Demand Modeling."
- ❑ 2020 Award for Excellence in the Teaching of Operations Research. Awarded by Operations Research Division of Institute of Industrial and Systems Engineers.
- ❑ 2019 Outstanding Engineer Award. Awarded by Institute of Electrical and Electronics Engineers Power & Energy Society Columbus, Ohio Chapter.
- ❑ 2018 Distinguished Faculty Award. Awarded by graduating undergraduate seniors of Department of Integrated Systems Engineering.
- ❑ 2015 Distinguished Faculty Award. Awarded by graduating undergraduate seniors of Department of Integrated Systems Engineering.
- ❑ 2015 The Ohio State University College of Engineering Lumley Research Award. Awarded for research productivity.
- ❑ 2010 Campbell Watkins Energy Journal Best Paper award for best paper published in *The Energy Journal*, for the paper "The Value of Plug-In Hybrid Electric Vehicles as Grid Resources."
- ❑ Best Paper Award at *4th International Conference on Sustainable Energy and Environmental Protection*, for the paper "Cost and Emissions Impacts of Plug-In Hybrid Vehicles (PHEVs) on the Electric Power Grid."
- ❑ 2006 Outstanding Graduate Student Instructor Award. Awarded by faculty of Department of Industrial Engineering and Operations Research at University of California, Berkeley.
- ❑ 2006 Best Graduate Student Instructor Award. Awarded by undergraduate members of the University of California, Berkeley chapter of Institute of Industrial and Systems Engineers.

Publications

Peer-Reviewed Journal Articles

1. V. Bertsch, J. Finke, K. Esser, L. S. Plaga, M. Mersch, J. Stelzer, B. Atakan, W. Fichtner, C. N. Markides, and R. Sioshansi. How can energy-system models inform technology development? Insights for emerging energy-storage technologies. *International Journal of Electrical Power and Energy Systems*, 2025. in press.
2. M. Muratori, D. Arent, M. D. Bazilian, J. Bistline, B. Borlaug, A. Brown, P. Cazzola, E. M. Dede, C. Gearhart, D. L. Greene, A. Jenn, A. Kendall, C. Ledna, Y. Liu, T. Lipman, S. Narumanchi, A. Pesaran, R. Sioshansi, T. Timbario, K. Walkowicz, and A. Yip. Trends and 2025 insights on the rise of electric vehicles in the USA. *Nature Reviews Clean Technology*, 2025. in press.
3. Y. Jiang and R. Sioshansi. Optimal and Incentive-Compatible Scheduling of Flexible Generation in an Electricity Market. *The Energy Journal*, 46:115–142, November 2025.
4. E. J. Anderson, M. C. Ferris, A. B. Philpott, M. Anitescu, P. Cramton, S. Geng, R. J. Green, T. H. de Mello, O. Huber, V. Leclère, and R. Sioshansi. Ten challenges for mathematical modeling of the green-energy transition. *Current Sustainable/Renewable Energy Reports*, 12:26, December 2025.
5. L. Pauschert and R. Sioshansi. Market Designs for Inertia Remuneration in Electricity Systems. *Current Sustainable/Renewable Energy Reports*, 12:25, December 2025.
6. W. Gu and R. Sioshansi. Operational Modeling of the Nexus Between Water-Distribution and Electricity Systems. *Current Sustainable/Renewable Energy Reports*, 12:4, December 2025.
7. D. F. Morey, M. Fischer, and R. Sioshansi. Winners and Losers from Vertical Integration Between Natural-Gas and Electricity Markets. *The Energy Journal*, 46:185–202, July 2025.
8. H. Kim, R. Sioshansi, E. Lannoye, and E. Ela. Assessing the Capacity Value of Energy Storage that Provides Frequency Regulation. *IEEE Transactions on Power Systems*, 40:2661–2673, May 2025.
9. S. Bhattacharjee, R. Sioshansi, and H. Zareipour. Comparing Participation Models in Electricity Markets for Hybrid Energy-Storage Resources. *IEEE Transactions on Power Systems*, 40:650–661, January 2025.
10. Y. Jiang and R. Sioshansi. A Computationally Efficient Approach to Optimizing Offers in Centrally Committed Electricity Markets. *European Journal of Operational Research*, 317:25–42, 16 August 2024.

11. K. Yagi and R. Sioshansi. Nested Benders's Decomposition of Capacity-Planning Problems for Electricity Systems with Hydroelectric and Renewable Generation. *Computational Management Science*, 21:16, June 2024.
12. Y. Jiang and R. Sioshansi. What Duality Theory Tells Us About Giving Market Operators the Authority to Dispatch Energy Storage. *The Energy Journal*, 44:89–109, May 2023.
13. K. Yagi and R. Sioshansi. Simplifying Capacity Planning for Electricity Systems with Hydroelectric and Renewable Generation. *Computational Management Science*, 20:26, December 2023.
14. T. Levin, J. Bistline, R. Sioshansi, W. J. Cole, J. Kwon, S. P. Burger, G. W. Crabtree, J. D. Jenkins, R. O'Neil, M. Korpäs, S. Wogrin, B. F. Hobbs, R. Rosner, V. Srinivasan, and A. Botterud. Energy Storage Solutions to Decarbonize Electricity through Enhanced Capacity Expansion Modeling. *Nature Energy*, 8:1199–1208, November 2023.
15. K. Yagi and R. Sioshansi. How Market Power Can Suppress the Effect of Carbon Policies in Wholesale Electricity Markets. *Journal of Japan Society of Energy and Resources*, 44:211–219, 11 September 2023.
16. R. G. Hunter-Rinderle, M. Y. Fong, B. Yang, H. Xian, and R. Sioshansi. Using In-Home Energy Storage to Improve the Resilience of Residential Electricity Supply. *IEEE Open Access Journal of Power and Energy*, 10:539–549, 27 July 2023.
17. M. A. Mansouri and R. Sioshansi. Comparing Electric Water Heaters and Batteries as Energy-Storage Resources for Energy Shifting and Frequency Regulation. *IEEE Open Access Journal of Power and Energy*, 10:164–175, 4 January 2023.
18. J. Barrera-Santana and R. Sioshansi. An Optimization Framework for Capacity Planning of Island Electricity Systems. *Renewable and Sustainable Energy Reviews*, 171:112955, January 2023.
19. W. Gu and R. Sioshansi. Market Equilibria with Energy Storage as Flexibility Resources. *IEEE Open Access Journal of Power and Energy*, 9:584–597, 1 November 2022.
20. M. A. Mansouri and R. Sioshansi. Using Interim Recommitment to Reduce the Operational-Cost Impact of Wind Uncertainty. *Journal of Modern Power Systems and Clean Energy*, 10:839–849, July 2022.
21. S. Bhattacharjee, R. Sioshansi, and H. Zareipour. Energy Storage Participation in Wholesale Markets: The Impact of State-of-Energy Management. *IEEE Open Access Journal of Power and Energy*, 9:173–182, 17 May 2022.
22. H. Kim, R. Sioshansi, E. Lannoye, and E. Ela. A Stochastic-Dynamic-Optimization Approach to Estimating the Capacity Value of Energy Storage. *IEEE Transactions on Power Systems*, 37:1809–1819, May 2022.
23. J. Yang, Z. Y. Dong, F. Wen, R. Sioshansi, M. R. Hesamzadeh, Q. Chen, and Y. Zhou. Enhancing Hosting Capability for Renewable Energy Generation in Active Distribution Networks. *IET Renewable Power Generation*, 16:651–654, 16 March 2022.
24. R. Sioshansi, P. Denholm, J. Arteaga, S. Awara, S. Bhattacharjee, A. Botterud, W. Cole, A. Cortés, A. de Queiroz, J. DeCarolis, Z. Ding, N. DiOrio, Y. Dvorkin, U. Helman, J. X. Johnson, I. Konstantelos, T. Mai, H. Pandžić, D. Sodano, G. Stephen, A. Svoboda, H. Zareipour, and Z. Zhang. Energy-Storage Modeling: State-of-the-Art and Future Research Directions. *IEEE Transactions on Power Systems*, 37:860–875, March 2022.
25. K. Yagi, R. Sioshansi, and P. Denholm. Using Concentrating-Solar-Power Plants as Economic Carbon-Free Capacity Resources. *Energy Conversion and Management: X*, 12:100112, December 2021.
26. K. Yagi and R. Sioshansi. Do Renewables Drive Coal-Fired Generation Out of Electricity Markets? *Current Sustainable/Renewable Energy Reports*, 8:222–232, December 2021.
27. R. G. Hunter-Rinderle and R. Sioshansi. Data-Driven Modeling of Operating Characteristics of Hydroelectric Generating Units. *Current Sustainable/Renewable Energy Reports*, 8:199–206, December 2021.
28. M. A. Mansouri and R. Sioshansi. The Effect of Natural-Gas Prices on Power-System Reliability. *Current Sustainable/Renewable Energy Reports*, 8:164–173, September 2021.

29. B. F. Chaiken, J. E. Duggan, Jr., and R. Sioshansi. Paid to Produce Absolutely Nothing? A Nash-Cournot Analysis of a Proposed Power Purchase Agreement. *Energy Policy*, 156:112371, September 2021.
30. M. Muratori, M. Alexander, D. Arent, M. Bazilian, P. Cazzola, E. M. Dede, J. Farrell, C. Gearhart, D. L. Greene, A. Jenn, M. Keyser, T. Lipman, S. Narumanchi, A. Pesaran, R. Sioshansi, E. Suomalainen, G. Tal, K. Walkowicz, and J. Ward. The rise of electric vehicles – 2020 status and future expectations. *Progress in Energy*, 3:022002, April 2021.
31. Y. Liu, R. G. Hunter-Rinderle, C. Luo, and R. Sioshansi. How Climate-Related Policy Affects the Economics of Electricity Generation. *Current Sustainable/Renewable Energy Reports*, 8:17–30, March 2021.
32. S. Bhattacharjee, R. Sioshansi, and H. Zareipour. Benefits of Strategically Sizing Wind-Integrated Energy Storage and Transmission. *IEEE Transactions on Power Systems*, 36:1141–1151, March 2021.
33. H. Kim, R. Sioshansi, and A. J. Conejo. Benefits of Stochastic Optimization for Scheduling Energy Storage in Wholesale Electricity Markets. *Journal of Modern Power Systems and Clean Energy*, 9:181–189, January 2021.
34. J. D. Ogland-Hand, J. M. Bielicki, B. M. Adams, E. S. Nelson, T. A. Buscheck, M. O. Saar, and R. Sioshansi. The Value of CO2-Bulk Energy Storage with Wind in Transmission-Constrained Electric Power Systems. *Energy Conversion and Management*, 228:113548, January 2021.
35. B. Zeng, H. Dong, R. Sioshansi, F. Xu, and M. Zeng. Bi-Level Robust Optimization of Electric Vehicle Charging Stations with Distributed Energy Resources. *IEEE Transactions on Industrial Applications*, 56:5836–5847, September-October 2020.
36. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei. Investment Equilibria Involving Gas-Fired Power Units in Electricity and Gas Markets. *IEEE Transactions on Power Systems*, 35:2736–2747, July 2020.
37. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei. Equilibria in Electricity and Natural Gas Markets with Strategic Offers and Bids. *IEEE Transactions on Power Systems*, 35:1956–1966, May 2020.
38. S. Varghese and R. Sioshansi. The Price is Right? How Pricing and Incentive Mechanisms in California Incentivize Building Distributed Hybrid Solar and Energy-Storage Systems. *Energy Policy*, 138:111242, March 2020.
39. S. Mousavian, A. J. Conejo, and R. Sioshansi. Equilibria in Investment and Spot Electricity Markets: A Conjectural-Variations Approach. *European Journal of Operational Research*, 281:129–140, 16 February 2020.
40. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei. Operational Equilibria of Electric and Natural Gas Systems with Limited Information Interchange. *IEEE Transactions on Power Systems*, 35:662–671, January 2020.
41. J. E. Duggan, Jr. and R. Sioshansi. Another Step Towards Equilibrium Offers in Unit Commitment Auctions with Nonconvex Costs: Multi-Firm Oligopolies. *The Energy Journal*, 40:249–281, November 2019.
42. L. Boffino, A. J. Conejo, R. Sioshansi, and G. Oggioni. A Two-Stage Stochastic Optimization Planning Framework to Deeply Decarbonize Electric Power Systems. *Energy Economics*, 84:104457, October 2019.
43. K. Yagi, R. Sioshansi, and P. Denholm. Evaluating a Concentrating Solar Power Plant as an Extended-Duration Peaking Resource Solar Energy. *Solar Energy*, 191:686–696, October 2019.
44. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei. Unit Commitment with an Enhanced Natural Gas-Flow Model. *IEEE Transactions on Power Systems*, 34:3729–3738, September 2019.
45. M. Arbabzadeh, R. Sioshansi, J. X. Johnson, and G. A. Keoleian. The role of energy storage in deep decarbonization of electricity production. *Nature Communications*, 10:1–11, 30 July 2019.
46. A. S. Siddiqui, R. Sioshansi, and A. J. Conejo. Merchant Storage Investment in a Restructured Electricity Industry. *The Energy Journal*, 40:129–163, July 2019.

47. B. Zhao, A. Zlotnik, A. J. Conejo, R. Sioshansi, and A. M. Rudkevich. Shadow Price-Based Co-ordination of Natural Gas and Electric Power Systems. *IEEE Transactions on Power Systems*, 34:1942–1954, May 2019.
48. F. Wu and R. Sioshansi. A Stochastic Operational Model for Controlling Electric Vehicle Charging to Provide Frequency Regulation. *Transportation Research Part D: Transport and Environment*, 67:475–490, February 2019.
49. A. J. Conejo and R. Sioshansi. Electricity Market: A Conversation on Future Designs. *IEEE Power and Energy Magazine*, 17:18–19, January-February 2019.
50. B. Zhao, A. J. Conejo, and R. Sioshansi. Using Electrical Energy Storage to Mitigate Natural Gas-Supply Shortages. *IEEE Transactions on Power Systems*, 33:7076–7086, November 2018.
51. Y. Liu, M. C. Roberts, and R. Sioshansi. A Vector Autoregression Weather Model for Electricity Supply and Demand Modeling. *Journal of Modern Power Systems and Clean Energy*, 6:763–776, July 2018.
52. A. Shahmohammadi, R. Sioshansi, A. J. Conejo, and S. Afsharnia. Market Equilibria and Interactions Between Strategic Generation, Wind, and Storage. *Applied Energy*, 220:876–892, 15 June 2018.
53. A. J. Conejo and R. Sioshansi. Rethinking Restructured Electricity Market Design: Lessons Learned and Future Needs. *International Journal of Electrical Power and Energy Systems*, 98:520–530, June 2018.
54. B. Zhao, A. J. Conejo, and R. Sioshansi. Coordinated Expansion Planning of Natural Gas and Electric Power Systems. *IEEE Transactions on Power Systems*, 33:3064–3075, May 2018.
55. Y. Liu, R. Sioshansi, and A. J. Conejo. Hierarchical Clustering to Find Representative Operating Periods for Capacity-Expansion Modeling. *IEEE Transactions on Power Systems*, 33:3029–3039, May 2018.
56. A. Shahmohammadi, R. Sioshansi, A. J. Conejo, and S. Afsharnia. The Role of Energy Storage in Mitigating Ramping Inefficiencies Caused by Variable Renewable Generation. *Energy Conversion and Management*, 162:307–320, 15 April 2018.
57. Y. Liu, R. Sioshansi, and A. J. Conejo. Multistage Stochastic Investment Planning with Multiscale Representation of Uncertainties and Decisions. *IEEE Transactions on Power Systems*, 33:781–791, January 2018.
58. S. Chandrashekar, Y. Liu, and R. Sioshansi. Wind-Integration Benefits of Controlled Plug-In Electric Vehicle Charging. *Journal of Modern Power Systems and Clean Energy*, 5:746–756, September 2017.
59. F. Wu and R. Sioshansi. A Two-Stage Stochastic Optimization Model for Scheduling Electric Vehicle Charging Loads to Relieve Distribution-System Constraints. *Transportation Research Part B: Methodological*, 102:55–82, August 2017.
60. D. Gami, R. Sioshansi, and P. Denholm. Data Challenges in Estimating the Capacity Value of Solar Photovoltaics. *IEEE Journal of Photovoltaics*, 7:1065–1073, July 2017.
61. F. Wu and R. Sioshansi. A Stochastic Flow-Capturing Model to Optimize the Location of Fast-Charging Stations with Uncertain Electric Vehicle Flows. *Transportation Research Part D: Transport and Environment*, 53:354–376, June 2017.
62. B. Zhao, A. J. Conejo, and R. Sioshansi. Unit Commitment Under Gas-Supply Uncertainty and Gas-Price Variability. *IEEE Transactions on Power Systems*, 32:2394–2405, May 2017.
63. R. Sioshansi. Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage. *IEEE Transactions on Power Systems*, 32:2028–2040, May 2017.
64. X. Liu, M. C. Roberts, and R. Sioshansi. Spatial Effects on Hybrid Electric Vehicle Adoption. *Transportation Research Part D: Transport and Environment*, 52, Part A:85–97, May 2017.
65. R. Sioshansi. Retail Electricity Tariff and Mechanism Design to Incentivize Distributed Renewable Generation. *Energy Policy*, 95:498–508, August 2016.
66. X. Xi and R. Sioshansi. Quantifying the Energy-Storage Benefits of Controlled Plug-in Electric Vehicle Charging. *International Journal of Energy and Power*, 5:26–34, 2016.

67. X. Xi and R. Sioshansi. A Dynamic Programming Model of Energy Storage and Transformer Deployments to Relieve Distribution Constraints. *Computational Management Science*, 13:119–146, January 2016.
68. R. Sioshansi. Optimized Offers for Cascaded Hydroelectric Generators in a Market with Centralized Dispatch. *IEEE Transactions on Power Systems*, 30:773–783, March 2015.
69. C. Weiller and R. Sioshansi. The Role of Plug-In Electric Vehicles with Renewable Resources in Electricity Systems. *Revue d'économie industrielle*, 148:291–316, 2014.
70. R. Sioshansi. Pricing in Centrally Committed Markets. *Utilities Policy*, 31:143–145, December 2014.
71. X. Xi, R. Sioshansi, and V. Marano. A Stochastic Dynamic Programming Model for Co-optimization of Distributed Energy Storage. *Energy Systems*, 5:475–505, September 2014.
72. X. Xi and R. Sioshansi. Using Price-Based Signals to Control Plug-in Electric Vehicle Fleet Charging. *IEEE Transactions on Smart Grid*, 5:1451–1464, May 2014.
73. H. B. Smith, A. Pielow, A. Jayakumar, M. Muratori, B. J. Yurkovich, R. Sioshansi, A. Krishnamurthy, G. Rizzoni, and M. C. Roberts. A User-Steered Energy Generation and Consumption Multi-Model Simulation for Pricing and Policy Development. *Computing in Science and Engineering*, 16:22–33, March/April 2014.
74. R. Sioshansi, S. H. Madaeni, and P. Denholm. A Dynamic Programming Approach to Estimate the Capacity Value of Energy Storage. *IEEE Transactions on Power Systems*, 29:395–403, January 2014.
75. R. Sioshansi. When Energy Storage Reduces Social Welfare. *Energy Economics*, 41:106–116, January 2014.
76. G. De Filippo, V. Marano, and R. Sioshansi. Simulation of an Electric Transportation System at The Ohio State University. *Applied Energy*, 113:1686–1691, January 2014.
77. S. H. Madaeni and R. Sioshansi. Measuring the Benefits of Delayed Price-Responsive Demand in Reducing Wind-Uncertainty Costs. *IEEE Transactions on Power Systems*, 28:4118–4126, November 2013.
78. R. Sioshansi and P. Denholm. Benefits of Colocating Concentrating Solar Power and Wind. *IEEE Transactions on Sustainable Energy*, 4:877–885, October 2013.
79. S. H. Madaeni and R. Sioshansi. The Impacts of Stochastic Programming and Demand Response on Wind Integration. *Energy Systems*, 4:109–124, June 2013.
80. X. Xi, R. Sioshansi, and V. Marano. Simulation-optimization model for location of a public electric vehicle charging infrastructure. *Transportation Research Part D: Transport and Environment*, 22:60–69, July 2013.
81. M. Muratori, M. C. Roberts, R. Sioshansi, V. Marano, and G. Rizzoni. A highly resolved modeling technique to simulate residential power demand. *Applied Energy*, 107:465–473, July 2013.
82. S. H. Madaeni and R. Sioshansi. Using Demand Response to Improve the Emission Benefits of Wind. *IEEE Transactions on Power Systems*, 28:1385–1394, May 2013.
83. S. H. Madaeni, R. Sioshansi, and P. Denholm. Estimating the Capacity Value of Concentrating Solar Power Plants with Thermal Energy Storage: A Case Study of the Southwestern United States. *IEEE Transactions on Power Systems*, 28:1205–1215, May 2013.
84. R. Sioshansi. 'Handbook of Renewable Energy Technology,' edited by Ahmed F. Zobaa and Ramesh C. Bansal (book review). *The Energy Journal*, 34:246–249, April 2013.
85. S. H. Madaeni, R. Sioshansi, and P. Denholm. Comparing Capacity Value Estimation Techniques for Photovoltaic Solar Power. *IEEE Journal of Photovoltaics*, 3:407–415, January 2013.
86. R. Sioshansi and A. Tignor. Do Centrally Committed Electricity Markets Provide Useful Price Signals? *The Energy Journal*, 33:97–118, October 2012.
87. A. Pielow, R. Sioshansi, and M. C. Roberts. Modeling Short-run Electricity Demand with Long-term Growth Rates and Consumer Price Elasticity in Commercial and Industrial Sectors. *Energy*, 46:533–540, October 2012.
88. R. Sioshansi. Modeling the Impacts of Electricity Tariffs on Plug-in Hybrid Electric Vehicle Charging, Costs, and Emissions. *Operations Research*, 60:506–516, May-June 2012.

89. S. H. Madaeni, R. Sioshansi, and P. Denholm. Estimating the Capacity Value of Concentrating Solar Power Plants: A Case Study of the Southwestern United States. *IEEE Transactions on Power Systems*, 27:1116–1124, May 2012.
90. R. Sioshansi, P. Denholm, and T. Jenkin. Market and Policy Barriers to Deployment of Energy Storage. *Economics of Energy & Environmental Policy*, 1:47–63, March 2012.
91. S. H. Madaeni, R. Sioshansi, and P. Denholm. How Thermal Energy Storage Enhances the Economic Viability of Concentrating Solar Power. *Proceedings of the IEEE*, 100:335–347, February 2012.
92. R. Sioshansi. Emissions Impacts of Wind and Energy Storage in a Market Environment. *Environmental Science & Technology*, 45:10728–10735, December 2011.
93. R. Sioshansi and J. Miller. Plug-in hybrid electric vehicles can be clean and economical in dirty power systems. *Energy Policy*, 39:6151–6161, October 2011.
94. E. Drury, P. Denholm, and R. Sioshansi. The Value of Compressed Air Energy Storage in Energy and Reserve Markets. *Energy*, 36:4959–4973, August 2011.
95. R. Sioshansi and E. Nicholson. Towards Equilibrium Offers in Unit Commitment Auctions with Nonconvex Costs. *Journal of Regulatory Economics*, 40:41–61, August 2011.
96. R. Sioshansi, P. Denholm, and T. Jenkin. A Comparative Analysis of the Value of Pure and Hybrid Electricity Storage. *Energy Economics*, 33:56–66, January 2011.
97. R. Sioshansi. Increasing the Value of Wind with Energy Storage. *The Energy Journal*, 32:1–30, April 2011.
98. R. Sioshansi, S. S. Oren, and R. P. O'Neill. Three-Part Auctions versus Self-Commitment in Day-ahead Electricity Markets. *Utilities Policy*, 18:165–173, December 2010.
99. R. Sioshansi, R. Fagiani, and V. Marano. Cost and emissions impacts of plug-in hybrid vehicles on the Ohio power system. *Energy Policy*, 38:6703–6712, November 2010.
100. R. Sioshansi and P. Denholm. The Value of Concentrating Solar Power and Thermal Energy Storage. *IEEE Transactions on Sustainable Energy*, 1:173–183, October 2010.
101. R. Sioshansi and D. Hurlbut. Market Protocols in ERCOT and Their Effect on Wind Generation. *Energy Policy*, 38:3192–3197, July 2010.
102. R. Sioshansi. Evaluating the Impacts of Real-Time Pricing on the Cost and Value of Wind Generation. *IEEE Transactions on Power Systems*, 25:741–748, April 2010.
103. R. Sioshansi and P. Denholm. The Value of Plug-In Hybrid Electric Vehicles as Grid Resources. *The Energy Journal*, 31:1–23, July 2010.
104. R. Sioshansi. Welfare Impacts of Electricity Storage and the Implications of Ownership Structure. *The Energy Journal*, 31:173–198, April 2010.
105. P. Denholm and R. Sioshansi. The value of compressed air energy storage with wind in transmission-constrained electric power systems. *Energy Policy*, 37:3149–3158, August 2009.
106. R. Sioshansi and W. Short. Evaluating the Impacts of Real-Time Pricing on the Usage of Wind Generation. *IEEE Transactions on Power Systems*, 24:516–524, May 2009.
107. R. Sioshansi, P. Denholm, T. Jenkin, and J. Weiss. Estimating the Value of Electricity Storage in PJM: Arbitrage and Some Welfare Effects. *Energy Economics*, 31:269–277, March 2009.
108. R. Sioshansi and P. Denholm. Emissions Impacts and Benefits of Plug-in Hybrid Electric Vehicles and Vehicle to Grid Services. *Environmental Science & Technology*, 43:1199–1204, February 2009.
109. R. Sioshansi, R. P. O'Neill, and S. S. Oren. Economic Consequences of Alternative Solution Methods for Centralized Unit Commitment in Day-Ahead Electricity Markets. *IEEE Transactions on Power Systems*, 23:344–352, May 2008.
110. R. Sioshansi and S. S. Oren. How good are supply function equilibrium models: an empirical analysis of the ERCOT balancing market. *Journal of Regulatory Economics*, 31:1–35, February 2007.
111. S. S. Oren and R. Sioshansi. Joint Energy and Reserve Auction with Opportunity Cost Payments for Reserves. *International Energy Journal*, 6:35–44, June 2005.

Book Chapters

1. A. Bard and R. Sioshansi. Comparing Concentrating-Solar-Power and Photovoltaic-Solar Plants as Extended-Duration Peaking Resources in Electricity Systems. In H. Phoumin, X. Shi, and F. Kimura, editors, *Tackling the Energy Transition: Insights from ASEAN and Beyond*, pages 119–142. Springer Singapore, Singapore, 27 August 2025.
2. J. E. Duggan, Jr. and R. Sioshansi. 126: Wholesale electricity markets: The unit-commitment problem. In A. N. Menegaki, editor, *Elgar Encyclopedia of Energy Economics*, pages 479–481. Edward Elgar Publishing Limited, Cheltenham, United Kingdom, 22 May 2025.
3. R. Sioshansi, L. F. Cabeza, and J. Yan. Introduction: Energy Storage Technologies. In L. F. Cabeza, R. Sioshansi, and J. Yan, editors, *Handbook of Clean Energy Systems*, volume 5, Energy Storage, chapter 1, pages 2385–2388. John Wiley & Sons Ltd, West Sussex, United Kingdom, June 2015.
4. R. Sioshansi, S. S. Oren, and R. P. O'Neill. The Cost of Anarchy in Self-Commitment Based Electricity Markets. In F. P. Sioshansi, editor, *Competitive Electricity Markets: Design, Implementation, Performance*, pages 245–266. Elsevier, 2008.

Books

1. R. Sioshansi and A. J. Conejo. *Optimization in Engineering: Models and Algorithms*, volume 120 of *Springer Optimization and Its Applications*. Springer Nature, Gewerbestraße 11, 6330 Cham, Switzerland, 2017.
2. L. F. Cabeza, R. Sioshansi, and J. Yan, editors. *Handbook of Clean Energy Systems*, volume 5, Energy Storage. John Wiley & Sons Ltd, West Sussex, United Kingdom, June 2015.

Under Review/In Preparation

1. S. Chen, S. Zhu, and R. Sioshansi. Enhancing Electricity-System Resilience with Adaptive Robust Optimization and Conformal Uncertainty Characterization.
2. W. Gu and R. Sioshansi. Relaxations of Operational Models of Electricity and Water Systems with Variable-Speed Pumps.
3. K. Yagi and R. Sioshansi. Can Large-Scale Thermal Energy Storage Exploit the Effects of Renewable Generation on Wholesale Electricity Prices?
4. S. Awara, M. Lynch, S. Pfenninger, K. Schell, R. Sioshansi, I. Staffell, N. Samaan, S. H. Tindemans, A. L. Wilson, S. Zachary, H. Zareipour, and C. J. Dent. Capacity Value of Solar Power and Other Variable Generation.

Presentations

1. R. Sioshansi, "Integrating Energy Storage into Wholesale Electricity Markets," invited briefing to the staff of Market Surveillance Administrator. December 8, 2025, Alberta, Canada.
2. R. Sioshansi, "Technology Pathways, Technical Challenges and Policy Needs to Decarbonize Electricity Systems," community partner workshop, Carnegie Mellon University Qatar. November 18, 2025, Al Rayyan, Qatar.
3. S. Chen, S. Zhu, and R. Sioshansi, "Enhancing Electricity-System Resilience with Adaptive Robust Optimization and Conformal Uncertainty Characterization," invited seminar at Wind and Energy Systems Department, Danmarks Tekniske Universitet. October 29, 2025, Kongens Lyngby, Denmark.
4. R. Sioshansi, "Holy Grail? Monetizing Energy Storage Through Capacity Rights," *IEEE Power & Energy Society General Meeting 2025*. July 27-31, 2025, Austin, TX.
5. R. Sioshansi, "Market-Efficiency Impact of Vertical Integration Between Natural-Gas and Electricity Markets, *46th IAEE International Conference*. June 15–18, 2025, Paris, France.
6. R. Sioshansi, "Energy Engineering and Economics: How Technical Constraints Impact Energy Systems and Markets," invited lecture in operational research for PhD Day, *46th IAEE International Conference*. June 15–18, 2025, Paris, France.

7. R. Sioshansi, "Can Thermal Energy Storage Address Resource-Adequacy Challenges?" invited seminar to research team of *Deutsche Forschungsgemeinschaft Priority Program 2403, "Carnot Batteries: Inverse Design from Markets to Molecules"*. May 26-28, 2025, Fulda, Germany.
8. R. Sioshansi, "Technology and Market-Design Challenges to Decarbonize Electricity Systems," invited seminar in Aalto Systems Forum, Aalto University. April 24, 2025, Espoo, Finland.
9. R. Sioshansi, "Assessing the Capacity Value of Energy Storage," *Winter School 2025: Planning Under Uncertainty in Energy Markets*. April 6-11, 2025, Kvitfjell, Norway.
10. R. Sioshansi, "How Unit-Commitment Decisions Impact Generator Behavior in Wholesale Electricity Markets," invited seminar at Department of Electrical and Computer Engineering, Iowa State University of Science and Technology. February 25, 2025, Ames, IA.
11. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," invited seminar at School of Industrial Engineering and Management, Oklahoma Oklahoma State University. February 7, 2025, Stillwater, OK.
12. D. Morey, M. Fischer, and R. Sioshansi, "Winners and Losers from Vertical Integration Between Natural-Gas and Electricity Markets," *58th Annual Hawai'i International Conference on System Sciences*. January 7-10, 2025, Waikoloa Village, HI.
13. R. Sioshansi, "Technology and Market-Design Challenges to Decarbonize Electricity Systems," invited seminar in Wind Energy Fellows Program, University of Massachusetts Amherst. November 21, 2024, Amherst, MA.
14. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," invited seminar in David A. Tepper School of Business, Carnegie Mellon University. November 15, 2024, Pittsburgh, PA.
15. R. Sioshansi, "Trade-Offs from Vertical Integration Between Natural-Gas and Electricity Markets," *2024 USAEE/IAEE North American Conference*. November 3-6, 2024, Baton Rouge, LA.
16. R. Sioshansi, "Trade-Offs From Vertical Integration Between Natural-Gas and Electricity Markets," *INFORMS Annual Meeting*. October 20-23, 2024, Seattle, WA.
17. R. Sioshansi, "Technology and Market-Design Challenges to Decarbonize Electricity Systems," invited seminar at Tsinghua University. August 27, 2024, Beijing, People's Republic of China.
18. R. Sioshansi, "Technology and Market-Design Challenges to Decarbonize Electricity Systems," invited seminar at Peking University. August 27, 2024, Beijing, People's Republic of China.
19. R. Sioshansi, "Technology and Market-Design Challenges to Decarbonize Electricity Systems," invited keynote speaker at *4th Macao International Conference on Smart City Technologies*. August 22-24, 2024, Macau.
20. R. Sioshansi, "Policy and Market-Design Challenges to Decarbonize Electricity Systems," invited speaker at workshop on *The Architecture of Green Energy Systems: Next Steps*, Institute for Mathematical and Statistical Innovation. August 19-21, 2024, Chicago, IL.
21. R. Sioshansi, "Research Overview," invited speaker at National Energy Technology Laboratory. August 14, 2024, Pittsburgh, PA.
22. R. Sioshansi, "Renewable Resource Planning," invited lecturer for tutorial on Power System T&D Planning & Operations—Transformations Through DER Integration, PMU Data Analytics, and Edge Device Interoperability at *IEEE Power & Energy Society General Meeting 2024*. July 21-25, 2024, Seattle, WA.
23. R. Sioshansi, "Technology and Policy Challenges to Decarbonize Electricity Systems," invited plenary speaker at *European Conference on Stochastic Optimization and Computational Management Science*. July 4-5, 2024, Stockholm, Sweden.
24. R. Sioshansi, "Optimal and Incentive-Compatible Scheduling of Flexible Generation in Electricity Markets," *45th IAEE International Conference*. June 25–28, 2024, Istanbul, Túrkiye.
25. R. Sioshansi, "Developing Frameworks for Understanding the Value of Carnot Batteries to Decarbonize Electricity Systems," invited seminar to research team of *Deutsche Forschungsgemeinschaft Priority Program 2403, "Carnot Batteries: Inverse Design from Markets to Molecules"*. June 19-21, 2024, Kassel, Germany.

26. R. Sioshansi, "Modeling Energy Storage in Electricity Systems," invited speaker for IEEE Power & Energy Society Live Online Learning. May 21, 2024.
27. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," *Third International Workshop on "Variational Analysis and Applications for Modelling of Energy Exchange"*. May 13-14, 2024, Trier, Germany.
28. R. Sioshansi, "Pathways to Decarbonize Electricity Systems," invited speaker at University of New England. March 27, 2024.
29. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," *Winter School Workshop in Energy Market Modelling*. March 17-20, 2024, Oppdal, Norway.
30. R. Sioshansi, "Modeling Energy Storage in Electricity Systems," *Deutsche Forschungsgemeinschaft Priority Program 2403 SpringSchool*. March 11-15, 2024, Karlsruhe, Germany.
31. R. Sioshansi, "Pathways to Decarbonize Electricity Systems," invited speaker at Osher Lifelong Learning Institute. February 12, 2024.
32. R. Sioshansi, "Optimal and Incentive-Compatible Scheduling of Flexible Generation in an Electricity Market," *57th Annual Hawai'i International Conference on System Sciences*. January 3-6, 2024, Honolulu, HI.
33. R. Sioshansi, "Nuclear Industry Overview," *Special Topic Briefing: The Role of Nuclear Innovation in a Clean Energy Future*, Allegheny Conference on Community Development. November 16, 2023, Pittsburgh, PA.
34. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," *2023 USAEE/IAEE North American Conference*. November 6-8, 2023, Chicago, IL.
35. R. Sioshansi, "Comparing Profit-Maximizing Offer Behavior of Generators in Centrally Versus Self-Committed Wholesale Electricity Markets," *INFORMS Annual Meeting*. October 15-18, 2023, Phoenix, AZ.
36. R. Sioshansi, "Technical Pathways to Decarbonize Electricity Systems," invited speaker in *2023 MEGA Symposium*. September 26-27, 2023, Pittsburgh, PA.
37. R. Sioshansi, "Techno-Economic Modeling of the Role of Energy Storage in Electricity Systems," invited seminar to research team of *Deutsche Forschungsgemeinschaft Priority Program 2403, "Carnot Batteries: Inverse Design from Markets to Molecules"*. September 18, 2023.
38. R. Sioshansi, "Recent Developments Affecting Ohio's Wholesale Electricity Market," invited lecturer in *Issues in Ohio Energy and Electric Utility Regulation* webinar. September 13, 2023.
39. R. Sioshansi, "Myths and Models for Integrating Energy-Storage Resources into Wholesale Electricity Markets," invited super-session speaker in *IEEE Power & Energy Society General Meeting 2023*. July 16-20, 2023, Orlando, FL.
40. R. Sioshansi and K. Yagi, "Simplifying Capacity Planning for Power Systems with Hydroelectric and Renewable Resources," *23rd Conference of the International Federation of Operational Research Societies*. July 10-14, 2023, Santiago, Chile.
41. R. Sioshansi, "Regulatory Models for Incorporating Energy Storage into Electricity Markets," invited keynote speaker in *Cuarto Workshop Complex Energy Systems*. July 7, 2023, Santiago, Chile.
42. R. Sioshansi, "Co-Ordination of Electricity and Natural-Gas Systems," seminar in Department of Engineering and Public Policy, Carnegie Mellon University. April 11, 2023, Pittsburgh, PA.
43. R. Sioshansi, "Investment Planning in Electricity Systems with High Hydroelectic Penetrations," *Planning Under Uncertainty in Energy Markets, Winter School - Geilo 2023*. March 26-31, 2023, Geilo, Norway.
44. R. Sioshansi, "Retail Electricity Pricing," *Workshop on "Future Energy Market Design"*. March 22, 2023, Trondheim, Norway.
45. R. Sioshansi, "Techno-Economics of Decarbonizing Electricity Systems," invited seminar in Institutes of Energy and the Environment, The Pennsylvania State University. February 22, 2023, University Park, PA.

46. R. Sioshansi, "Teaching Statements," invited panelist in Future Faculty Fellows Program, Institute of Industrial and Systems Engineers. December 9, 2022.
47. R. Sioshansi, "Energy Storage: How Much, for How Long, and Where?" invited panelist in EIC-ERC Workshop on Energy Storage, November 18, 2022.
48. R. Sioshansi, "Techno-Economics of Decarbonizing Electricity Systems," invited seminar in Department of Earth and Environmental Engineering, Columbia University in the City of New York. November 10, 2022, New York, NY.
49. R. Sioshansi, "Techno-Economics of Decarbonizing Electricity Systems," invited seminar in Department of Industrial Engineering, University of Houston. October 28, 2022, Houston, TX.
50. R. Sioshansi, "Assessing the Resource-Adequacy Contribution of Energy Storage," *Carnegie Mellon Electricity Industry Center Advisory Committee Meeting*. October 19-20, 2022, Pittsburgh, PA.
51. E. Duggan, Jr. and R. Sioshansi, "When a Power Purchase Agreement Reduces Social Welfare," *INFORMS Annual Meeting*. October 16-19, 2022, Indianapolis, IN.
52. R. Sioshansi, "Technical Pathways to and Economic Issues with Decarbonizing Electricity Systems," invited keynote speaker in *16th International Conference on Energy Economics and Technology*. September 30, 2022, Dresden, Germany.
53. R. Sioshansi and K. Yagi, "Simplifying Capacity Planning for Power Systems with Hydroelectric and Renewable Resources," *Second International Workshop on "Variational Analysis and Applications for Modelling of Energy Exchange"*. May 9-10, 2022, Brescia, Italy.
54. R. Sioshansi, "A Dynamic-Programming Approach to Assessing the Reliability Contribution of Energy Storage to Electricity Systems," invited seminar in Ralph O'Connor Sustainable Energy Institute, Johns Hopkins University. April 4, 2022, Baltimore, MD.
55. R. Sioshansi, "Assessing the Resource-Adequacy Contribution of Energy Storage," invited seminar in Battery Storage and Grid Integration Program, Australian National University. March 29, 2022.
56. R. Sioshansi, "A Dynamic-Programming Approach to Assessing the Reliability Contribution of Energy Storage to Electricity Systems," invited seminar in Carnegie Mellon Electricity Industry Center, Carnegie Mellon University. March 25, 2022, Pittsburgh, PA.
57. R. Sioshansi, "Assessing the Resource-Adequacy Contribution of Energy Storage," invited seminar in Fakultät Wirtschaftswissenschaften, Technische Universität Dresden. March 16, 2022, Dresden, Germany.
58. R. Sioshansi, "Assessing the Resource-Adequacy Contribution of Energy Storage," invited seminar in Department of Industrial and Management Engineering, Pohang University of Science and Technology. March 4, 2022.
59. R. Sioshansi, "Using Concentrating Solar Power/Solar Thermal Plants as Capacity Resources," *Winter School 2022: Planning Under Uncertainty in Energy Markets*. February 28-March 4, 2022, Oppdal, Norway.
60. R. Sioshansi, "Future Directions for Industrial Engineering," invited seminar in Department of Industrial Engineering, University of Pittsburgh. February 18, 2022, Pittsburgh, PA.
61. R. Sioshansi, "A Dynamic-Programming Approach to Assessing the Resource-Adequacy Contribution of Energy Storage," invited seminar in Department of Industrial Engineering, University of Houston. February 4, 2022.
62. R. Sioshansi, "A Dynamic-Programming Approach to Assessing the Resource-Adequacy Contribution of Energy Storage," invited seminar in Lane Department of Computer Science and Electrical Engineering, West Virginia University. December 10, 2021, Morgantown, WV.
63. R. Sioshansi, "Resource-Adequacy Contribution of Energy Storage," invited seminar in Department of Industrial and Manufacturing Systems Engineering, Iowa State University of Science and Technology. December 8, 2021, Ames, IA.
64. R. Sioshansi, "Resource-Adequacy Assessment of Energy Storage," *Trans-Atlantic Cooperation on Energy Market Modeling*. November 8-12, 2021, Espoo, Finland.

65. K. Yagi, R. Sioshansi, and P. Denholm, "Using Concentrating Solar Power Plants as Capacity Resources," *INFORMS Annual Meeting*. October 24-27, 2021, Anaheim, CA.
66. S. Bhattacharjee, R. Sioshansi, and H. Zareipour, "Benefits of strategically sizing wind-integrated energy storage and transmission," *INFORMS Annual Meeting*. October 24-27, 2021, Anaheim, CA.
67. R. Sioshansi, "Approaches to Electricity Demand Response," invited seminar for Isfahan Chamber of Commerce. October 13, 2021.
68. R. Sioshansi, "Future Directions for Industrial Engineering," invited seminar in School of Industrial Engineering, Purdue University. September 24, 2021, West Lafayette, IN.
69. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar at IFP School. September 8, 2021, Rueil-Malmaison, France.
70. S. Varghese and R. Sioshansi, "The Price is Right? Incentives for Deployment and Use of Distributed Energy Resources," *IEEE Power & Energy Society General Meeting 2021*. July 26-29, 2021.
71. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Carnegie Mellon Electricity Industry Center, Carnegie Mellon University. April 28, 2021.
72. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Department of Industrial & Systems Engineering, Rutgers University–New Brunswick. April 20, 2021.
73. R. Sioshansi, "Technical Pathways to and Economic Issues with Decarbonizing Electricity Production," IEEE Power & Energy Society Region 2 Webinar. April 7, 2021.
74. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Department of Mechanical & Industrial Engineering, University of Toronto. March 17, 2021.
75. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Edward P. Fitts Department of Industrial and Systems Engineering, North Carolina State University. February 12, 2021.
76. R. Sioshansi, "How Electricity Systems Work and the Need for Energy Storage," *Symposium on Energy Transition and Decarbonization*, Sustainability Institute, The Ohio State University. February 10-11, 2021.
77. K. Yagi and R. Sioshansi, "Analyzing Wholesale Electricity Market Using Supply Function Equilibrium Model," *37th Conference on Energy, Economy, and Environment*. January 26-27, 2021.
78. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Department of Civil and Systems Engineering, Johns Hopkins University. January 21, 2021.
79. R. Sioshansi, "Market and Regulatory Design for Energy Storage," invited keynote speaker in *2020 International Conference on Smart Grids and Energy Systems*. November 23-26, 2020, Perth, Australia.
80. S. Varghese and R. Sioshansi, "Optimising hybrid PV and ES systems with capacity payments," *INFORMS Annual Meeting*. November 7-13, 2020.
81. H. J. Kim, R. Sioshansi, and A. J. Conejo, "Energy Storage Scheduling In Day-ahead And Real-time Wholesale Electricity Markets Using Stochastic Optimization," *INFORMS Annual Meeting*. November 7-13, 2020.
82. K. Yagi and R. Sioshansi, "Impacts Of Decarbonization Policy On Price Formation In Wholesale Electricity Markets," *INFORMS Annual Meeting*. November 7-13, 2020.
83. K. Yagi and R. Sioshansi, "Solving Capacity-Expansion Problems For Power Systems With Hydroelectric And Renewable Resources Using Representative Operating Days And Nested Benders's Decomposition," *INFORMS Annual Meeting*. November 7-13, 2020.
84. R. Sioshansi, "Teaching Panel Discussion," *IISE Annual Conference & Expo 2020*. November 1-3, 2020.

85. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited webinar, University of Edinburgh. June 25, 2020, Edinburgh, Scotland, United Kingdom.
86. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. May 28-29, 2020.
87. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. February 26-27, 2020, Arlington, VA.
88. R. Sioshansi, "Energy Market Design," invited discussion before the staff of Australian Energy Market Commission. December 18, 2019, Sydney, Australia.
89. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Centre for Energy and Environmental Markets and School of Photovoltaic and Renewable Energy Engineering, University of New South Wales. December 18, 2019, Sydney, Australia.
90. R. Sioshansi, "What are the Technical Pathways to and Economic Issues with Decarbonizing Electricity Production?" invited keynote speaker in *2019 9th International Conference on Power and Energy Systems*. December 10-12, 2019, Perth, Australia.
91. R. Sioshansi, "Challenges and Opportunities for Solar Deployment and Integration," plenary speaker in *2019 Asia-Pacific Solar Research Conference*. December 3-5, 2019, Canberra, Australia.
92. R. Sioshansi, "Managing the Seams Between Electromobility and Power Systems," invited keynote speaker in *Smart Mobility and Intelligent Vehicles 2019*. November 12, 2019, Paris, France.
93. R. Sioshansi, "Commentary on Commodities," panelist in *Distribution Network Economics Workshop*. November 7-8, 2019, Boston, MA.
94. R. Sioshansi, "Co-ordinating Operations of Electricity and Natural Gas Systems," invited seminar, *Laboratory for Information and Decision Systems, Massachusetts Institute of Technology*. November 7, 2019, Cambridge, MA.
95. J. D. Ogland-Hand, J. M. Bielicki, E. S. Nelson, B. M. Adams, T. A. Bushcheck, M. O. Saar, and R. Sioshansi, "Using Geologically Stored CO_2 and Geothermal Energy to Decarbonize the Electricity System," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
96. R. Sioshansi and A. J. Conejo, "Temporal and Spatial Decomposition of Power System Planning Problems," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
97. R. Sioshansi and A. J. Conejo, "Market Equilibria and Interactions Between Strategic Generation, Wind, and Storage," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
98. A. J. Conejo, S. Chen, and R. Sioshansi, "Equilibria in Electricity and Natural Gas Markets with Strategic Offers and Bids," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
99. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. October, 16-17, 2019, Arlington, VA.
100. R. Sioshansi, "2020 Biennial Energy Storage Review," invited plenary speaker at *Department of Energy Office of Electricity Energy Storage Peer Review 2019*. September 23-26, 2019, Albuquerque, NM.
101. R. Sioshansi, "A Decarbonized Electricity Grid of the Future: Separating Fact From Fiction," invited breakout speaker at *2019 Citizens' Climate Lobby Great Lakes Regional Conference*. September 20-22, 2019, South Bend, IN.
102. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Department of Industrial and Systems Engineering, Lehigh University. September 17, 2019, Bethlehem, PA.
103. R. Sioshansi, "Who Should Operate Energy Storage in Restructured Electricity Markets?" *2019 IEEE PES General Meeting*. August 4-8, 2019, Atlanta, GA.
104. A. J. Conejo and R. Sioshansi, "A Financial Framework for Distribution Systems with Increasing Behind-the-Meter Resources," *IEEE Power & Energy Society General Meeting 2019*. August 4-8, 2019, Atlanta, GA.

105. K. Yagi, R. Sioshansi, and A. J. Conejo, "Temporal and Spatial Decomposition of Power System Planning Problems," *2019 International Conference on Stochastic Programming*. July 29-August 2, 2019, Trondheim, Norway.
106. R. Sioshansi, "Co-ordinating Operations of Electricity and Natural Gas Systems," invited seminar, North China Electric Power University. July 9, 2019, Beijing, People's Republic of China.
107. R. Sioshansi, "Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage," *42nd Annual IAEE International Conference*. May 29-June 1, 2019, Montréal, Quebec, Canada.
108. R. Sioshansi, "Technical Pathways to and Economic Issues with Decarbonizing Electricity Production," *IISE Annual Conference and Expo 2019*. May 18-21, 2019, Orlando, FL.
109. R. Sioshansi, "Decarbonization, Energy Storage, and Materials Research Needs," *2019 OSU Materials Week*. May 7-9, 2019, Columbus, OH.
110. A. Siddiqui, R. Sioshansi, and A. J. Conejo, "Merchant Storage Investment in a Restructured Electricity Industry," *Workshop on Electricity Systems of the Future: Incentives, Regulation and Analysis for Efficient Investment*. March 18-22, 2019, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, Cambridge, United Kingdom.
111. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. March 13-14, 2019, Arlington, VA.
112. R. Sioshansi, "Coordinating Operations of Electricity and Natural Gas Systems," *Multi-Energy Systems Workshop*. March 11-12, 2019, Eidgenössische Technische Hochschule Zürich, Zürich, Switzerland.
113. R. Sioshansi, "Generation Investment, Price Formation, and Cost Recovery," *Winter School 2019*. March 3-8, 2019, Kvitfjell, Norway.
114. M. Arbabzadeh, R. Sioshansi, J. X. Johnson, and G. A. Keoleian, "The Role of Energy Storage in Deep Decarbonization of Electricity Production," invited seminar in Wind Energy Fellows Program, University of Massachusetts Amherst. December 6, 2018, Amherst, MA.
115. Y. Liu, R. Sioshansi, and A. J. Conejo, "How Climate-Related Policy Affects the Economics of Generation-Capacity Investment," *FSR Climate Annual Conference*. November 26-27, 2018, Florence, Italy.
116. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei, "Unit Commitment Of Integrated Electric And Gas Systems With An Enhanced SOC Gas Flow Model," *INFORMS Annual Meeting*. November 4-7, 2018, Phoenix, AZ.
117. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei, "Equilibria In Electricity And Gas Systems Under Limited Information Interchange," *INFORMS Annual Meeting*. November 4-7, 2018, Phoenix, AZ.
118. J. D. Ogland-Hand, J. M. Bielicki, E. S. Nelson, B. M. Adams, T. A. Bushcheck, M. O. Saar, and R. Sioshansi, "Optimizing the Use of CO_2-Bulk Energy Storage for Transmission Deferral," *INFORMS Annual Meeting*. November 4-7, 2018, Phoenix, AZ.
119. R. Sioshansi "Modeling and Decomposing Multi-Stage and Multi-Scale Stochastic Investment Problems," invited seminar to *IEEE Columbus PES Chapter*. October 24, 2018, Columbus, OH.
120. R. Sioshansi, Y. Liu, L. Boffino, A. J. Conejo, G. Oggioni, "What are the Technical Pathways to and Economic Issues with Decarbonizing Electricity Production?" *3rd Japanese-German Workshop on Renewable Energies*. October 17-19, 2018, Tokyo, Japan.
121. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar in Operations Research and Industrial Engineering Program, University of Texas at Austin. October 5, 2018, Austin, TX.
122. R. Sioshansi, "How Much Does Energy Storage Contribute to Power System Reliability?" invited seminar at Sandia National Laboratories. September 28, 2018, Albuquerque, NM.
123. R. Sioshansi, "Electricity Advisory Committee: Energy Storage Subcommittee," invited plenary speaker at *2018 Department of Energy Office of Electricity Energy Storage Storage Peer Review*. September 24-27, 2018, Santa Fe, NM.

124. L. Boffino, A. J. Conejo, R. Sioshansi, and G. Oggioni, "A Two-Stage Stochastic Optimization Framework for Planning Deeply Decarbonized Electric Power Systems," *42nd Annual Meeting of the Italian Association for Mathematics Applied to Economic and Social Sciences*. September 13-15, 2018, Naples, Italy.
125. A. J. Conejo and R. Sioshansi. "Revisiting Electricity Market Design: What the Past 30 Years Taught Us and What Electricity Systems of the Future Need," *IEEE Power & Energy Society General Meeting 2018*. August 5-9, 2018, Portland, OR.
126. H. Kim, R. Sioshansi, E. Ela, E. Lannoye, and A. J. Conejo. "How Market-Design Choices Affect the Reliability Contribution of Energy Storage," *IEEE Power & Energy Society General Meeting 2018*. August 5-9, 2018, Portland, OR.
127. A. J. Conejo and R. Sioshansi, "Rethinking restructured electricity market design: Lessons learned and future needs," invited brown bag seminar at Deutsches Institut füür Wirtschaftsforschung. July 19, 2018, Berlin, Germany.
128. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. July 9-10, 2018, Arlington, VA.
129. A. J. Conejo and R. Sioshansi, "A Market Design Integrating The View Of Stochastic Producers," invited seminar at Red Eléctrica de España. July 4, 2018, Madrid, Spain.
130. M. Arbabzadeh, R. Sioshansi, J. X. Johnson, and G. A. Keoleian, "Energy storage for time-shifting and greenhouse gas reductions under varying renewable penetrations—A CAISO case study," *2018 International Symposium on Sustainable Systems & Technology*. June 26-28, 2018, Buffalo, NY.
131. S. Chen, A. J. Conejo, R. Sioshansi, and Z. Wei, "Unit Commitment of Integrated Electric and Gas Systems with an Enhanced Second-Order Cone Gas Flow Model," *Technical Conference: Increasing Real-Time and Day-Ahead Market Efficiency and Enhancing Resilience through Improved Software*. June 26-28, 2018, Washington, DC.
132. H. Kim, R. Sioshansi, E. Ela, E. Lannoye, and A. J. Conejo. "Contribution of Energy Storage to Resource Adequacy" *2018 International Conference on Probabilistic Methods Applied to Power Systems*. June 24-28, 2018, Boise, ID.
133. R. Sioshansi. "Can We Get Market Design and Regulation Correct for Energy Storage?" invited keynote speaker in *Workshop on 'Commodities and Energy Market Organization in the Energy Transition Context'*. June 18-19, 2018, Rueil-Malmaison, France.
134. A. Siddiqui, R. Sioshansi, and A. J. Conejo, "Merchant Storage Investment in a Restructured Electricity Industry," *41st Annual IAEE International Conference*. June 10-13, 2018, Groningen, Netherlands.
135. R. Sioshansi, "Using the Flexibility of Energy Storage for Renewable Integration and Power System Operations," invited seminar at North China Electric Power University. May 10, 2018, Beijing, People's Republic of China.
136. R. Sioshansi, "Estimating the Capacity Value of Energy-Limited Storage in Wholesale Energy Markets," *EPRI ISO/RTO Webcast*. March 30, 2018.
137. R. Sioshansi, "EAC Energy Storage Subcommittee: Update," *Electricity Advisory Committee Meeting*. February 20-21, 2018, Arlington, VA.
138. J. D. Ogland-Hand, J. M. Bielicki, E. S. Nelson, B. M. Adams, T. A. Buscheck, R. Sioshansi, "The Value of Using Sedimentary Basin Geothermal Resources for Bulk Energy Storage in Transmission Constrained Electricity Systems," *Stanford Geothermal Workshop*. February 12-14, 2018, Palo Alto, CA.
139. R. Sioshansi, "Using Sequential Sampling to Solve a Two-Stage Stochastic Program for Scheduling Electric Vehicle Charging," *Winter School Workshop 2018 on Stochastic Programming in Energy*. February 11-14, 2018, Geilo, Norway.
140. R. Sioshansi, "Using Distributed Energy Resources for Multiple Applications Via Capacity Rights," *Distributed Energy Workshop*. January 11-13, 2018, University of Auckland, Auckland, New Zealand.

141. R. Sioshansi, "Using Energy Storage as a Source of Flexibility for Renewable Integration and Power System Operations," invited panelist at *VII Jornadas de Economía de la Energía*. November 9, 2017, Santiago, Chile.
142. R. Sioshansi, "Regulatory, Rate, and Market Design for Energy Storage," invited seminar at Groupe d'études et de recherche en analyse des décisions (GERAD), École Polytechnique de Montréal. November 2, 2017, Montréal, Quebec, Canada.
143. A. Siddiqui, R. Sioshansi, and A. J. Conejo, "Merchant Storage Investment In A Deregulated Electricity Industry," *INFORMS Annual Meeting*. October 22-25, 2017, Houston, TX.
144. A. J. Conejo and R. Sioshansi, "A Market Design Integrating The View Of Stochastic Producers," *INFORMS Annual Meeting*. October 22-25, 2017, Houston, TX.
145. R. Sioshansi, "Managing the Transition of Electric Power Systems to a Decarbonized Future," invited seminar at The Ohio State University Environmental Sciences Graduate Program. October 20, 2017, Columbus, OH.
146. H. Bahtiyar and R. Sioshansi, "The Effects of Policy Changes on Households' Behavior About Electric Vehicles and Energy Related Appliances," *2nd IAEE Eurasian Conference*. October 12-14, 2017, Zagreb, Croatia.
147. R. Sioshansi, "Energy Storage: An Introduction to Technologies, Real-World Use Cases, and Regulatory Developments," *Saudi Electricity Forum*. October 10-12, 2017, Riyadh, Saudi Arabia.
148. R. Sioshansi, "Managing Loads and Operation of Electric Power Systems," *Saudi Electricity Forum*. October 10-12, 2017, Riyadh, Saudi Arabia.
149. R. Sioshansi and A. J. Conejo, "The State of Restructured Electricity Market Design and the Need for Further Reform," *International Conference on Energy Revolution and Electricity Innovation*. September 21-22, 2017, Beijing, People's Republic of China.
150. R. Sioshansi, "EAC Energy Storage Subcommittee: Update," *Electricity Advisory Committee Meeting*. September 13-14, 2017, Arlington, VA.
151. R. Sioshansi, "An Overview of the Challenges of Today's Electricity Markets in the United States and European Union," invited joint workshop organized by Directorate-General of Joint Research Centre and Directorate-General of Energy of European Union on *Redesigning Restructured Electricity Markets: Accommodating Variable Renewables, Distributed Energy Resources, and System Security*. July 24, 2017, Brussels, Belgium.
152. R. Sioshansi, "Non-technology Barriers to the Deployment of Distributed Energy Storage," *IEEE Power & Energy Society General Meeting 2017*. July 16-20, 2017, Chicago, IL.
153. R. Sioshansi, "Economic, Regulatory, and Modeling Issues with Energy Storage," invited lecturer for tutorial on Energy Storage: An Introduction to Technologies, Applications and Best Practices at *IEEE Power & Energy Society General Meeting 2017*. July 16-20, 2017, Chicago, IL.
154. B. Zhao, A. J. Conejo, and R. Sioshansi, "Coordinated Capacity-Expansion Planning of Natural Gas and Electric Power Systems," invited seminar at Nanyang Technological University School of Electrical and Electronic Engineering. June 22, 2017, Singapore.
155. R. Sioshansi and H. B. Gooi, "Policy Framework for Energy Storage Systems in Singapore," invited seminar at Energy Market Authority. June 21, 2017, Singapore.
156. R. Sioshansi, "Energy Security and Resilience Benefits of Electric Energy Storage," plenary panelist at *40th Annual IAEE International Conference*. June 18-21, 2017, Singapore.
157. R. Sioshansi and A. J. Conejo, "Revisiting Restructured Electricity Market Design: What the Past 30 Years Taught Us and What Electricity Systems of the Future Need," invited keynote speaker in *14th International Conference on the European Energy Market*. June 6-9, 2017, Dresden, Germany.
158. R. Sioshansi, "Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage," *Eleventh Conference on The Economics of Energy and Climate Change*. June 6-7, 2017, Toulouse, France.

159. R. Sioshansi, "'Optimal network tariffs for renewable electricity production,' by Thomas P. Tangerås and Frank Wolak," invited discussant, *Eleventh Conference on The Economics of Energy and Climate Change*. June 6-7, 2017, Toulouse, France.
160. F. Wu, H. Nagarajan, A. Zlotnik, R. Sioshansi, and A. M. Rudkevich, "Adaptive Convex Relaxations for Gas Pipeline Network Optimization," *American Control Conference*. May 24-26, 2017, Seattle, WA.
161. R. Sioshansi, "PowerForward: Economic and Regulatory Innovation to Achieve the Power System of the Future," invited address to *Public Utilities Commission of Ohio*. April 18-20, 2017, Columbus, OH.
162. R. Sioshansi, "Non-technology Barriers to the Deployment of Distributed Energy Storage," invited seminar in University of Michigan series on *Emerging Topics in Sustainable Electric Power Systems*. February 2, 2017, Ann Arbor, MI.
163. R. Sioshansi, "Analyzing the Effects of Policy Levers on Energy Pricing and Investment with Stochastic Capacity Expansion Models," *Winter School 2017 in Stochastic Programming with Applications in Energy, Logistics, and Finance*. January 15-21, 2017, Passo del Tonale, Italy.
164. R. Sioshansi and A. J. Conejo, "Electricity Grid of the Future," *Presentation to Management of AEP Ohio*. January 12, 2017, Columbus, OH.
165. Y. Liu and R. Sioshansi, "Electricity Capacity Expansion and Cost Recovery With Renewables," *INFORMS Annual Meeting*. November 13-16, 2016, Nashville, TN.
166. A. J. Conejo, B. Zhao, and R. Sioshansi, "Unit Commitment Under Gas-Supply Uncertainty and Gas-Price Variability," *INFORMS Annual Meeting*. November 13-16, 2016, Nashville, TN.
167. R. Sioshansi, "Economic Regulation Issues Regarding VtG in the United States," *Expert Workshop: V2X User Perception, Business Models, and Regulatory Framework*. October 26-28, 2016, Paris, France.
168. C. J. Dent, R. Sioshansi, J. Reinhart, A. L. Wilson, S. Zachary, M. Lynch, C. Bothwell, and C. Steele, "Capacity Value of Solar Power: Report of the IEEE PES Task Force on Capacity Value of Solar Power," *2016 International Conference on Probabilistic Methods Applied to Power Systems*. October 16-20, 2016, Beijing, People's Republic of China.
169. R. Sioshansi, "Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage," invited seminar at Nanyang Technological University School of Electrical and Electronic Engineering. October 13, 2016, Singapore.
170. R. Sioshansi, "Storage Assessment and Five-Year Plan: Update and EAC Approval," *Electricity Advisory Committee Meeting*. September 28-29, 2016, Arlington, VA.
171. R. Sioshansi, "Economic, Regulatory, and Modeling Issues with Energy Storage," invited lecturer for tutorial on Energy Storage: An Introduction to Technologies, Applications and Best Practices at *IEEE Power & Energy Society General Meeting 2016*. July 17-21, 2016, Boston, MA.
172. R. Sioshansi, "Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage," invited seminar in Fakultät Wirtschaftswissenschaften, Technische Universität Dresden. July 12, 2016, Dresden, Germany.
173. R. Sioshansi, "Biennial Storage Program Assessment: Update and Work Plan," *Electricity Advisory Committee Meeting*. June 1-2, 2016, Arlington, VA.
174. R. Sioshansi, "Energy Storage Subcommittee Activities and Plans," *Electricity Advisory Committee Meeting*. June 1-2, 2016, Arlington, VA.
175. A. J. Conejo and R. Sioshansi, "A market design integrating the view of stochastic producers," invited keynote speaker in Third General Consortium Meeting, Centre for IT-Intelligent Energy Systems in Cities, Danmarks Tekniske Universitet. May 25, 2016, Lyngby, Denmark.
176. R. Sioshansi, "Planning, Operational, and Business Models for Public Electric Vehicle Charging Stations," *2016 International Conference on Global Energy Interconnection*. March 30-31, 2016, Beijing, People's Republic of China.
177. R. Sioshansi, "Biennial Storage Program Assessment: Update and Work Plan," *Electricity Advisory Committee Meeting*. March 17-18, 2016, Arlington, VA.

178. R. Sioshansi, "Modeling and Decomposing Multi-Stage and Multi-Scale Stochastic Investment Problems," *Winter School 2016 in Stochastic Programming and Energy*. March 13-17, 2016, Oppdal, Norway.
179. R. Sioshansi, "Understanding the Economic and Environmental Impacts of Energy Storage: The Role of Market Structure," invited seminar in Management Science and Engineering Department and Precourt Institute for Energy, Stanford University. February 18, 2016, Palo Alto, CA.
180. R. Sioshansi, "Vehicle-Grid System Integration Policies," *Review of DOE CERC-CVC 1.0 Programs*. January 20, 2016, Columbus, OH.
181. R. Sioshansi, "Modeling and Decomposing Multi-Stage and Multi-Scale Stochastic Optimization Problems," invited tutorial at workshop on Optimization and Equilibrium in Energy Economics, Institute for Pure and Applied Mathematics, University of California, Los Angeles. January 11-15, 2016, Los Angeles, CA.
182. Y. Liu and R. Sioshansi, "A Progressive Hedging Approach to Multistage and Multiscale Stochastic Generation and Transmission Investment," invited seminar at Groupe d'études et de recherche en analyse des décisions (GERAD), École Polytechnique de Montréal. November 26, 2015, Montréal, Quebec, Canada.
183. F. Wu and R. Sioshansi, "Public Electric Vehicle Fast Charging Station Management Strategies," *INFORMS Annual Meeting*. November 1-4, 2015, Philadelphia, PA.
184. Y. Liu and R. Sioshansi, "Stochastic Generation and Transmission Investment Planning Model," *INFORMS Annual Meeting*. November 1-4, 2015, Philadelphia, PA.
185. Y. Liu and R. Sioshansi, "A Progressive Hedging Approach to Multistage Stochastic Generation and Transmission Investment Planning," *9th Annual Trans-Atlantic INFRADAY Conference*. October 30, 2015, Washington, DC.
186. R. Sioshansi and F. Wu, "Vehicle-Grid System Integration Policies: Electric Vehicle Charging Station Placement and Management," *2015 US-China Clean Energy Research Center Annual Meeting*. August 17-18, 2015, Beijing, People's Republic of China.
187. R. Sioshansi, "'Big' Problems in Energy Systems," invited talk at *JPMorgan Chase & Company Analytics Lunch and Learn Series*. July 13, 2015, Columbus, OH.
188. R. Sioshansi, "Inclusion of solar generation in adequacy studies: a survey by the PES 'Capacity Value of Solar Power' Task Force," *2015 IEEE Power and Energy Society General Meeting*. July 26-30, 2015, Denver, CO.
189. R. Sioshansi, "Needs for Improved Modeling of Storage and Greater Consistency in Methods and Metrics," *2015 IEEE Power and Energy Society General Meeting*. July 26-30, 2015, Denver, CO.
190. R. Sioshansi, "Non-Technical Barriers to Energy Storage Entering the Market," *2015 IEEE Power and Energy Society General Meeting*. July 26-30, 2015, Denver, CO.
191. R. Sioshansi, "Stochastic Dynamic Programming Models for Co-Optimizing Storage Operations," *22nd International Symposium on Mathematical Programming*. July 12-17, 2015, Pittsburgh, PA.
192. R. Sioshansi, "A Dynamic Programming Approach to Estimating the Capacity Value of Energy Storage," invited seminar at Durham University Durham Energy Institute. June 16, 2015, Durham, United Kingdom.
193. R. Sioshansi, "Retail Electricity Tariff and Mechanism Design to Incentivize Distributed Generation," *The 2nd Meeting of the ERIA Research Working Group 2014–2015 for Studies on "Financing Renewable Energy Development in EAS Countries: A Primer of Effective Policy Instruments"*. May 16-17, 2015, Chiang Mai, Thailand.
194. R. Sioshansi, "A Stochastic Dynamic Programming Model for Co-Optimizing Storage Operations," invited colloquium at University of Texas at Austin Department of Electrical and Computer Engineering. May 6, 2015, Austin, TX.
195. R. Sioshansi, "Stochastic Dynamic Programming and Energy Storage," *Winter School 2015 in Energy Systems and Markets*. March 22-28, 2015, Kvitfjell, Norway.

196. R. Sioshansi, "Non-Technical Barriers to Energy Storage Entering the Market," *University of Michigan Sustainable Systems Forum*, Invited Seminar Speaker. February 20, 2015, Ann Arbor, MI.
197. R. Sioshansi, "Wholesale and Retail Market Design for Incentivizing Renewable Energy Adoption," *The 1st Meeting of the ERIA Research Working Group 2014–2015 for Studies on "Financing Renewable Energy Development in EAS Countries: A Primer of Effective Policy Instruments"*. January 6, 2015, Jakarta, Indonesia.
198. R. Sioshansi, "Optimizing Offers for Cascaded Hydroelectric Generators in a Market with Centralized Dispatch," *INFORMS Annual Meeting*. November 9-12, 2014, San Francisco, CA.
199. R. Sioshansi, "Energy Storage and Renewable Integration: Needs, Opportunities, and Challenges," *University of Iowa Public Policy Center Conference on "Meeting the Renewable Energy Challenge"*, Invited Panelist. October 15-16, 2014, Iowa City, IA.
200. R. Sioshansi, "The Economics of Energy Storage," *International Summer School ENERstore 2014*. September 22-26, 2014, Technische Universität Dresden, Dresden, Germany.
201. R. Sioshansi and F. Wu, "Vehicle-Grid System Integration Policies: Electric Vehicle (EV) Infrastructure Location Optimization & Charging Load Estimation," *2014 US-China Clean Energy Research Center Annual Meeting*. August 11-12, 2014, Ann Arbor, MI.
202. R. Sioshansi, "Decision Support Tools for Energy Storage Investment and Operations," *2014 IEEE Power and Energy Society General Meeting*. July 27-31, 2014, National Harbor, MD.
203. R. Sioshansi, "Energy Storage," invited tutorial to *Office of the Ohio Consumers' Counsel*. July 15, 2014, Columbus, OH.
204. R. Sioshansi, "The Role of Vehicle to Grid With Renewable Resources in Electricity Markets," invited keynote speaker and roundtable participant in *Armand Peugeot Chair 1st International Conference on "Electromobility: Challenging Issues"*. December 19-20, 2013, Paris, France.
205. R. Sioshansi, "Welfare Effects of Energy Storage: Market Structure, Ownership, and the Unknown," invited seminar at Friedrich-Alexander-Universität. December 16, 2013, Nürnberg, Germany.
206. R. Sioshansi, "Economic Impact of Grid Energy Storage," *Presented at Emerging Technologies' Impact on U.S. Energy Security*, The MITRE Corporation. December 3-4, 2013, McLean, VA.
207. S. H. Madaeni, R. Sioshansi, and P. Denholm, "Estimating Capacity Value of Energy Storage Using Dynamic Programming," *INFORMS Annual Meeting*. October 6-9, 2013, Minneapolis, MN.
208. X. Xi, R. Sioshansi, and V. Marano, "A Stochastic Dynamic Programming Model for Co-optimization of Distributed Storage," *INFORMS Annual Meeting*. October 6-9, 2013, Minneapolis, MN.
209. R. Sioshansi, "Capacity Cost Allocation and Distributed Renewables," invited keynote speaker in *IET Renewable Power Generation Conference 2013*. September 19-20, 2013, Beijing, People's Republic of China.
210. R. Sioshansi and X. Xi, "Using Price-Based Signals to Control Plug-in Electric Vehicle (PEV) Charging," *2013 US-China Clean Energy Research Center Annual Meeting*. August 19-20, 2013, Beijing, People's Republic of China.
211. S. H. Madaeni and R. Sioshansi, "The Effects of Delayed Price-Responsive Demand in Reducing Wind-Uncertainty Costs," invited seminar at Institutet för Näringslivsforskning. May 31, 2013, Stockholm, Sweden.
212. R. Sioshansi, "Home Energy Management," *The Ohio State University/Battelle Memorial Institute Smart Grid Collaboration Meeting*. January 23, 2013, Columbus, OH.
213. S. H. Madaeni and R. Sioshansi, "Demand Response Can Improve the Emission Benefits of Wind," *Eighth Conference on The Economics of Energy Markets*. January 17-18, 2013, Toulouse, France.
214. R. Sioshansi, "Pricing in Restructured Electricity Markets," invited seminar at Energy and Resources Group, University of California, Berkeley. November 20, 2012, Berkeley, CA.

215. R. Sioshansi, "Energy Storage Economics and Policy and Market Interactions," invited seminar at Energy and Resources Group, University of California, Berkeley and Lawrence Berkeley National Laboratory. November 19, 2012, Berkeley, CA.
216. R. Sioshansi and A. Tignor, "Utopia Electric: Do Centrally Committed Electricity Markets Provide Useful Price Signals?" *Electricity Optimization: Optimal Power System Topologies and Generation*. November 8, 2012, Washington, DC.
217. S. H. Madaeni, R. Sioshansi, and P. Denholm, "Capacity Value of Photovoltaic Power," *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
218. R. Sioshansi and A. Tignor, "Do Centrally Committed Markets Provide Useful Price Signals?" *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
219. X. Xi, R. Sioshansi, and V. Marano, "A Nash Equilibrium Method to Control Plug-in Electric Vehicle Charging with Wind Integration," *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
220. X. Xi, R. Sioshansi, and V. Marano, "Optimal Location of Public Electric Vehicle Charging Infrastructure," *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
221. R. Sioshansi, "Electric Vehicle Adoption: Spatial and Demographic Effects," invited panelist at *Great Lakes Symposium on Smart Grid and the New Energy Economy*. September 24-26, 2012, Chicago, IL.
222. M. Roberts, R. Sioshansi, and M. Pham, "Spatial Analysis of PEV Adoption," *2012 US-China Clean Energy Research Center Annual Meeting*. August 27-28, 2012, Ann Arbor, MI.
223. R. Sioshansi, V. Marano, and X. Xi, "Price-based PEV Charging Control," *2012 US-China Clean Energy Research Center Annual Meeting*. August 27-28, 2012, Ann Arbor, MI.
224. R. Sioshansi, V. Marano, and X. Xi, "A Simulation-Optimization Model for Public PEV Charging Stations," *2012 US-China Clean Energy Research Center Annual Meeting*. August 27-28, 2012, Ann Arbor, MI.
225. R. Sioshansi, "Price and Investment Implications of Renewables," invited panelist at *Ohio Clean Energy Transmission Summit*. August 6, 2012, Columbus, OH.
226. S. H. Madaeni, R. Sioshansi, and P. Denholm, "The Capacity Value of Solar Generation in the Western United States," *2012 IEEE Power & Energy Society General Meeting*. July 22-26, 2012, San Diego, CA.
227. M. Muratori, V. Marano, R. Sioshansi, and G. Rizzoni, "Energy consumption of residential HVAC systems: a simple physically-based model," *2012 IEEE Power and Energy Society General Meeting*. July 22-26, 2012, San Diego, CA.
228. U. Helman and R. Sioshansi, "Valuing concentrating solar power with thermal energy storage: A survey of the literature and some extensions," *Advanced Workshop in Regulation and Competition: 25th Annual Western Conference*. June 27-29, 2012, Monterey, CA.
229. R. Sioshansi, "Impact of Renewable on System CO_2 Emission," invited presentation at Cummins Science & Technology Council Meeting. June 27, 2012, Columbus, IN.
230. X. Xi, R. Sioshansi, and V. Marano, "A Simulation-Optimization Model for the Location of Public Electric Vehicle Charging Infrastructure," invited colloquium at Institute for Future Energy Consumer Needs and Behavior and E.ON Energy Research, RWTH Aachen University. June 13, 2012, Aachen, Germany.
231. R. Sioshansi, "Transportation Electrification: What are the Benefits and Challenges?" invited seminar at IFP School. June 11-12, 2012, Rueil-Malmaison, France.
232. R. Sioshansi, "The Economics of Energy Storage: What can be Learned from the U.S. Experience?" invited seminar at IFP School. June 11-12, 2012, Rueil-Malmaison, France.
233. R. Sioshansi, "'Investment Analysis of Power Distribution Networks: The Case of Norway' by Rahmatallah Poudineh and Tooraj Jamasb," invited discussant, *5th International Workshop on "Empirical Methods in Energy Economics"*. June 7-8, 2012, Berlin, Germany.
234. A. Pielow, R. Sioshansi, and M. C. Roberts, "Modeling Short-run Electricity Demand with Long-term Growth Rates and Consumer Prices Elasticity in Commercial and Industrial Sectors," *5th International Workshop on "Empirical Methods in Energy Economics"*. June 7-8, 2012, Berlin, Germany.

235. R. Sioshansi, "Market and Policy Barriers to Energy Storage," *Renewable & Sustainable Energy Technology Workshop*. April 12-13, 2012, Los Angeles, CA.
236. M. Muratori, M. Roberts, R. Sioshansi, V. Marano, G. Rizzoni, "Modeling Residential Power Demand," *6th Annual UCEAO Conference on Securing Ohio's Energy and Economic Future*. April 2-3, 2012, Columbus, OH.
237. R. Sioshansi, and E. Nicholson, "Comparison of Centrally and Self-Committed Electricity Markets," *INFORMS Annual Meeting*. November 13-16, 2011, Charlotte, NC.
238. R. Sioshansi and P. Denholm, "Benefits of Co-Locating Wind and Concentrating Solar Power," *INFORMS Annual Meeting*. November 13-16, 2011, Charlotte, NC.
239. S. H. Madaeni, R. Sioshansi, and P. Denholm, "Estimating the Capacity Value of Concentrating Solar Power Plants," *INFORMS Annual Meeting*. November 13-16, 2011, Charlotte, NC.
240. R. Sioshansi, "EV Charging Infrastructure Siting," *2011 SJTU-UM Workshop on Renewable Energy and New Energy Vehicles*. October 20-21, 2011, Shanghai, People's Republic of China.
241. R. Sioshansi, "EV Charging Infrastructure Siting—Project Overview," *2011 Annual Technology Forum of US-China Clean Vehicles Consortium*. October 17-18, 2011, Beijing, People's Republic of China.
242. R. Sioshansi, "Advanced Energy Technologies: Overview of Research Activities," invited seminar at Battelle Memorial Institute. September 12, 2011, Columbus, OH.
243. M. Muratori, V. Marano, R. Sioshansi, and M. Roberts, "Domestic Power Demand Prediction and Modelling," *The 24th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems*. July 4-7, 2011, Novi Sad, Serbia.
244. R. Sioshansi, "Market Impacts and Interactions in the Energy/Climate Nexus," National Science Foundation Workshop on *Engineering & Social Response to the Energy-Climate Nexus*. June 23-24, 2011, Arlington, VA.
245. R. Sioshansi and P. Denholm, "The Value of Plug-In Hybrid Electric Vehicles as Grid Resources," *34th IAEE International Conference*. June 19-23, 2011, Stockholm, Sweden.
246. R. Sioshansi, "Methods of Modeling the Value of Concentrating Solar Power and Thermal Energy Storage," invited seminar at BrightSource Energy. May 23, 2011, Oakland, CA.
247. R. Sioshansi "Market Interactions Between Wind and Energy Storage: Do Wind and Storage Make Economic Sense?" invited seminar at Tulane Energy Institute, Tulane University. April 8, 2011, New Orleans, LA.
248. R. Sioshansi, "Addressing Computational Issues in Large-Scale Models," *EFRI-RESIN Workshop*. January 13-14, 2011, Tucson, AZ.
249. R. Sioshansi, "Increasing the Value of Wind with Energy Storage." *INFORMS Annual Meeting*. November 7-10, 2010, Austin, TX.
250. S. Madaeni and R. Sioshansi, "Evaluating the Impact of Demand Response and Stochastic Programming on the Cost of Wind," *INFORMS Annual Meeting*. November 7-10, 2010, Austin, TX.
251. R. Sioshansi, "The Impact of Electricity Tariffs on PHEVs," *INFORMS Annual Meeting*. November 7-10, 2010, Austin, TX.
252. S. Madaeni and R. Sioshansi, "Benefits of Demand Response and Stochastic Programming on Reducing Wind Integration Costs," *12th International Conference on Stochastic Programming*. August 16-20, 2010, Halifax, NS, Canada.
253. R. Sioshansi, V. Marano, and R. Fagiani, "Cost and Emissions Impacts of Plug-In Hybrid Vehicles (PHEVs) on the Electric Power Grid," *4th International Conference on Sustainable Energy and Environmental Protection*. June 29-July 2, 2010, Bari, Italy.
254. R. Fagiani, V. Marano, and R. Sioshansi, "Cost and Emissions Impacts of Plug-in Hybrid Electric Vehicles on Ohio Power Grid," *The 2nd International Symposium on Energy Engineering, Economics and Policy: EEEP 2010*. June 29-July 2, 2010, Orlando, FL.
255. R. Sioshansi, "Using Storage to Increase the Market Value of Wind Generation," *Advanced Workshop in Regulation and Competition: 23rd Annual Western Conference*. June 23-25, 2010, Monterey, CA.

256. R. Sioshansi, "Some Policy and Research Questions Related to Energy Storage," *Workshop on Electricity Storage in Paris–Supélec*. May 10, 2010, Gif-sur-Yvette, France.
257. R. Sioshansi, "Using Storage to Increase the Market Value of Wind Generation," *Sixth Conference on The Economics of Energy Markets*. January 28-29, 2010, Toulouse, France.
258. R. Sioshansi, "Welfare and Incentive Effects of Energy Storage," *INFORMS Annual Meeting*. October 11-14, 2009, San Diego, CA.
259. R. Sioshansi and P. Denholm, "Net Emissions Impacts of Plug-In Hybrid Electric Vehicles," *INFORMS Annual Meeting*. October 11-14, 2009, San Diego, CA.
260. P. Denholm and R. Sioshansi, "The Value of Compressed-Air Energy Storage (CAES) with Transmission-Constrained Wind," *INFORMS Annual Meeting*. October 11-14, 2009, San Diego, CA.
261. S. Oren, R. Sioshansi, and R. O'Neill, "Three part auctions versus self-commitment in day ahead electricity markets," *Workshop: Designing Electricity Auctions*. September 15-16, 2009. Stockholm, Sweden.
262. R. Sioshansi, "Modeling the Impacts of Plug-In Hybrid Electric Vehicles on Electric Power Systems," *20th International Symposium on Mathematical Programming*. August 23-28, 2009, Chicago, IL.
263. P. Denholm and R. Sioshansi, "Estimating the Transmission Value of Combining Wind with Energy Storage," *32nd IAEE International Conference*. June 21-24, 2009, San Francisco, CA.
264. R. Sioshansi and P. Denholm, "Estimating the Value of Energy Storage in Concentrating Solar Thermal Plants," *32nd IAEE International Conference*. June 21-24, 2009, San Francisco, CA.
265. R. Sioshansi, "Evaluating the Impact of Real-Time Pricing on the Cost and Value of Wind Generation," *Second Annual Power Systems Modeling Conference*. March 18-20, 2009, Gainesville, FL.
266. R. Sioshansi, "The Value of Plug-in Hybrid Electric Vehicles as Grid Resources," *Second Annual Power Systems Modeling Conference*. March 18-20, 2009, Gainesville, FL.
267. R. Sioshansi, "Evaluating the Impact of Real-Time Pricing on the Cost and Value of Wind Generation," *Fifth Annual Carnegie Mellon Conference on the Electricity Industry*. March 10-11, 2009, Pittsburgh, PA.
268. R. Sioshansi, "Evaluating the Impact of Real-time Demand Response on the Integration Cost of Wind," *INFORMS Annual Meeting*. October 12-15, 2008, Washington, DC.
269. R. Sioshansi and W. Short, "Evaluating the Impacts of Real-Time Pricing on the Usage of Wind Generation," *Fifth Conference on The Economics of Energy Markets*. June 20-21, 2008, Toulouse, France.
270. R. Sioshansi, "'Cournot versus Supply Functions: What does the data tell us?' by Bert Willems, Ina Rumiantseva, and Hannes Weigt," invited discussant, *Fifth Conference on The Economics of Energy Markets*. June 20-21, 2008, Toulouse, France.
271. R. Sioshansi and W. Short, "Demand Response via Real-Time Pricing to Increase Use of Operational Wind Energy Generators," *PSerc Public Teleseminar*. May 6, 2008.
272. R. Sioshansi, "Evaluating the Impacts of Real-Time Pricing on the Usage and Integration of Wind Generation," invited seminar at Division of Economics and Business, Colorado School of Mines. February 25, 2008, Golden, CO.
273. R. Sioshansi, "How Good are Supply Function Equilibrium Models: An Empirical Analysis of the Texas Spot Market," invited seminar at David A. Tepper School of Business, Carnegie Mellon University. February 7, 2008, Pittsburgh, PA.
274. R. Sioshansi, "How Good are Supply Function Equilibrium Models: An Empirical Analysis of the Texas Spot Market," invited seminar at Department of Industrial, Welding, and Systems Engineering, The Ohio State University. January 22, 2008, Columbus, OH.
275. R. Sioshansi and E. Nicholson, "Equilibrium Bidding in Unit Commitment Auctions," *INFORMS Annual Meeting*. November 4-7, 2007, Seattle, WA.
276. R. Sioshansi and A. Svoboda, "Optimal Hydro Bidding in a Market with Centralized Dispatch," *Advanced Workshop in Regulation and Competition: 20th Annual Western Conference*. June 27-29, 2007, Monterey, CA.

277. R. Sioshansi, "How Good are Supply Function Equilibrium Models: An Empirical Analysis of the Texas Spot Market," invited seminar at Department of Geography and Environmental Engineering, Johns Hopkins University. March 28, 2007, Baltimore, MD.
278. R. Sioshansi, S. Oren, and R. O'Neill, "The Cost of Anarchy in Self-Commitment Based Electricity Markets," *INFORMS Annual Meeting*. November 5-8, 2006, Pittsburgh, PA.
279. R. Sioshansi and S. Oren, "Do Supply Function Equilibrium Models Describe Behavior in Electricity Spot Markets: An Empirical Analysis of the ERCOT Market," *Third Conference on The Economics of Electricity Markets*. June 2-3, 2005, Toulouse, France.
280. R. Sioshansi and S. Oren, "Do Supply Function Equilibrium Models Describe Behavior in Electricity Spot Markets: An Empricial Analysis of the ERCOT Market," *UC Energy Institute Seminar*. March 11, 2005, Berkeley, CA.
281. S. Oren and R. Sioshansi, "Joint Energy and Reserves Auction with Opportunity Cost Payments for Reserves," *Proceedings of the Bulk Power Systems Dynamics and Control IV*. August 22-27, 2004, Cortina d'Ampezzo, Italy.
282. S. Oren and R. Sioshansi, "Joint Energy and Reserves Auction with Opportunity Cost Payment for Reserves," *Second Conference on Competition and Coordination in the Electricity Industry*. January 16-17, 2004, Toulouse, France.

Teaching

Instructor

- ❑ Energy Systems in Transformation: Markets, Policy, and Change (undergraduate); Carnegie Mellon University Qatar; Fall 2025
- ❑ Restructured Electricity Market Design (graduate-level short course); IFP School; Summer 2012–2025
- ❑ Quantitative Methods of Policy Analysis (graduate); Carnegie Mellon University; Spring 2025
- ❑ Market Engineering and Applications (graduate); Carnegie Mellon University; Spring 2024–2025
- ❑ Electricity Management and Sustainability (graduate-level short course); New Age Maker's Institute of Technology; Spring 2024
- ❑ EPP Projects (undergraduate); Carnegie Mellon University; Spring 2024
- ❑ Engineering Optimization (graduate); Carnegie Mellon University; Fall 2023
- ❑ Approaches to Modeling and Solving Energy Problems with Uncertainty (PhD-level short course); Technische Universität Dresden; Autumn 2022
- ❑ Nonlinear and Dynamic Optimization (undergraduate); The Ohio State University; Spring 2013–Autumn 2022
- ❑ Foundations of Data-Driven Sustainable Energy Systems (graduate); The Ohio State University; Autumn 2020–2022
- ❑ Advanced Nonlinear Optimization (graduate); The Ohio State University; Spring 2013, 2014, 2019
- ❑ Decision Analysis (graduate); The Ohio State University; Autumn 2012–2013, Autumn 2016–2017
- ❑ Decomposition and Relaxation Techniques for Large-Scale Optimization Problems (PhD-level short course); Technische Universität Dresden; Summer 2016
- ❑ Market Engineering and Applications (graduate); The Ohio State University; Spring 2010, Winter 2011, and Autumn 2015
- ❑ Electric Vehicle Grid Integration (graduate-level short course); CentraleSupélec; Winter 2013
- ❑ Optimization Transition (undergraduate); The Ohio State University; Spring 2012
- ❑ Seminar in Industrial Engineering (graduate); The Ohio State University; Autumn 2011–Spring 2012
- ❑ Nonlinear Programming (graduate); The Ohio State University; Winter 2011–2012
- ❑ Introduction to Applied Decision Analysis (graduate); The Ohio State University; Spring 2009 and 2010, Autumn 2011
- ❑ Fundamentals of Linear Optimization with Applications (undergraduate); The Ohio State University; Winter 2009, and Autumn 2009–2011
- ❑ Advanced Decision Analysis (graduate); The Ohio State University; Autumn 2008

❑ Market Engineering and Applications (undergraduate); University of California, Berkeley; Fall 2005, 2006

Teaching Assistant

❑ Nonlinear Programming (graduate); University of California, Berkeley; Spring 2004
❑ Mathematical Programming (graduate); University of California, Berkeley; Fall 2003
❑ Decision Analysis (undergraduate); University of California, Berkeley; Spring 2003

Service

Advisory Work

❑ Committee Member; Green Research, Technology Development and Innovation, Grand Solutions Programme, Innovationsfonden (2025)
❑ Peer Review Panelist; DOE Office of Electricity Energy Storage Program Peer Review, United States Department of Energy (2018–2020, 2022–2024)
❑ Technical Advisory Committee Member; Managing Increased Electric Vehicle Shares on Decarbonizing Bulk Power Systems, National Renewable Energy Laboratory (2023)
❑ Reviewer; Sharing Exemplary Admissions Practices That Promote Diversity in Engineering, National Academy of Engineering (2022)
❑ Panel Member; Energy Storage—Energy Markets for the Future, California Independent System Operator (2021)
❑ Technical Review Panel Member; Solar Futures Study, United States Department of Energy (2020–2021)
❑ External Advisory Board Member; AMS, Inc. (2019–2021)
❑ Member; Electricity Advisory Committee, United States Department of Energy (2014–2020)
- Chair, Energy Storage Subcommittee (2017–2020)
- Vice Chair, Energy Storage Subcommittee (2017)
- Co-Chair, 2020 Biennial Energy Storage Program Assessment Working Group
- Chair, 2018 Biennial Energy Storage Program Assessment Working Group
- Chair, DOE's Role in Assisting State-Level Implementation, Valuation, and Policy Treatment of Energy Storage Working Group
- Chair, 2016 Biennial Energy Storage Program Assessment Working Group
- Member, Energy Storage Subcommittee (2014–2020)
- Member, Smart Grid Subcommittee (2016–2018)

❑ External Advisory Board Member; Beyond LCOE, Grid Modernization Initiative, United States Department of Energy (2019)
❑ Technical Review Committee Member; Grid Modernization Laboratory Consortium, United States Department of Energy (2016–2019)
❑ Lead Reviewer; 2018 Grid Modernization Initiative Peer Review, United States Department of Energy (2018)
❑ Invited presenter at 2012 Cummins Science & Technology Council Meeting

Editorial Work

❑ Editor in Chief, *Current Sustainable/Renewable Energy Reports*; 2022–Present.
❑ Co-Editor, *Energy, Sustainability and Society*; 2016–Present.
❑ Editorial Advisory Board Member:
- INFORMS/Springer Book Series; 2022–Present.
- *Renewable Energy Focus*; 2016–Present.

❑ Editorial Board Member:
- *International Journal of Industrial Management*; 2016–Present.
- *Foundations and Trends in Energy Markets and Policy*; 2013–Present.
- *IET Renewable Power Generation*; 2012–Present.
- *Journal of Modern Power Systems and Clean Energy*; 2013–2022.
- *Journal of Energy Markets*; 2015–2019.

- ❑ Senior Associate Editor, *IEEE Systems Journal*; 2019–2024.
- ❑ Section Editor, Electricity Market Design to Accommodate Zero-Marginal-Cost Resources, *Current Sustainable/Renewable Energy Reports*; 2020–2022.
- ❑ Section Editor, Energy Market, *Current Sustainable/Renewable Energy Reports*; 2017–2022.
- ❑ Subject Editor, Market Design for Renewable Energy Support and Integration, *IET Renewable Power Generation*; 2018–Present.
- ❑ Associate Editor:
  - *Operations Research*; 2022–Present.
  - *IET Energy Conversion and Economics*; 2020–Present.
  - *Journal of Energy Engineering*; 2012–Present.
  - *IEEE Power Engineering Letters*; 2013–2020.
  - *IEEE Transactions on Power Systems*; 2013–2020.
  - *Decision Support Systems*; 2008–2015.
- ❑ Guest Editor:
  - *INFORMS Journal on Data Science* special issue on "The Dual Edge of AI: Catalyzing and Challenging the Future of Energy Systems"; 2025-2026.
  - *IET Renewable Power Generation* special issue associated with The 22nd Conference of the International Federation of Operational Research Societies on "Methodological Advances in Renewable-Energy Analysis"; 2021-2022.
  - *IET Renewable Power Generation* special issue on "Enhancing Hosting Capability for Renewable Energy Generation in Active Distribution Networks"; 2021-2022.
  - *Applied Energy* special issue on "COVID-19 impacts on Energy and Environment"; 2020-2021.
  - *Engineering* special issue on "Active Support of Power System to Energy Transition"; 2020-2021.
  - *Energy Systems* special issue on "Planning under uncertainty in the energy transition"; 2019-2021.
  - *International Journal of Electrical Power and Energy Systems* special issue on "Integrated planning, operation and control of multi-carrier energy systems"; 2018-2020.
  - *Transportation Research Part D: Transport and Environment* special issue on "Role of Infrastructure to Enable and Support Electric Drive Vehicles"; 2018–2019.
  - *IEEE Power and Energy Magazine* special issue on "Electricity Market: A Conversation on Future Designs"; 2018-2019.

Refereeing

- ❑ *Applied Sciences*
- ❑ *Computational Management Science*
- ❑ *Current Sustainable/Renewable Energy Reports*
- ❑ *Decision Support Systems*
- ❑ *Energies*
- ❑ *Energy*
- ❑ *Energy Economics*
- ❑ *Energy, Sustainability and Society*
- ❑ *Environmental Science and Technology*
- ❑ *European Journal of Operational Research*
- ❑ *European Transactions on Electrical Power*
- ❑ *IEEE Intelligent Systems*
- ❑ *IEEE Power and Energy Magazine*
- ❑ *IEEE Signal Processing Magazine*
- ❑ *IEEE Transactions on Power Systems*
- ❑ *IEEE Transactions on Sustainable Energy*
- ❑ *IIE Transactions*
- ❑ *IISE Transactions*
- ❑ *International Review of Economics and Finance*

- ❑ *Journal of Ambient Intelligence and Humanized Computing*
- ❑ *Journal of Modern Power Systems and Clean Energy*
- ❑ *Journal of Regulatory Economics*
- ❑ *Manufacturing and Service Operations Management*
- ❑ *Mathematical Programming A*
- ❑ *Nature Energy*
- ❑ *Naval Research Logistics*
- ❑ *Operations Research*
- ❑ *Proceedings of the IEEE*
- ❑ *Sensors*
- ❑ *Soft Computing*
- ❑ *Sustainability*
- ❑ *The Bridge*
- ❑ *The Energy Journal*
- ❑ *Transportation Research Part C: Emerging Technologies*

Academic-Program Reviewing

- ❑ Endowed-Chair Review Committee, William Ray and Marie Adamson Flesher Professor of Educational Administration; College of Education and Human Ecology, The Ohio State University; 2020–2021.
- ❑ Habilitation à Diriger des Recherches Evaluator; Olivier Massol; 2020–2021.
- ❑ Scientific Committee; Chair in Electricity Economics and Digital Transition at IFP School; 2019–2021.

External Dissertation Examiner

- ❑ Tuomas Rintamaki; Aalto-yliopisto; Finland; 2024–2025.
- ❑ Hongyu Zhang; Norges teknisk-naturvitenskapelige universitet; Norway; 2024.
- ❑ Chandrika Ramiah; Université de Maurice; Maurice; 2023.
- ❑ Pierre Cayet; Université Paris Nanterre; France; 2021.
- ❑ Icaro Silvestre Freitas Gomes; Université Paris-Saclay; Sciences Économiques; France; 2021.
- ❑ University of New South Wales; School of Electrical Engineering and Telecommunications; Australia; 2021.
- ❑ Anna Schwele; Danmarks Tekniske Universitet; Department of Electrical Engineering; Denmark; 2020.
- ❑ University of Melbourne; Climate and Energy College; Australia; 2019.
- ❑ Nanyang Technical University; School of Electrical & Electronic Engineering; Singapore; 2017.
- ❑ University of New South Wales; School of Electrical Engineering and Telecommunications; Australia; 2016.
- ❑ University of New South Wales; School of Electrical Engineering and Telecommunications; Australia; 2016.

Proposal Reviewing

- ❑ Member; Grand Solutions committee for Green Research, Technology and Innovation; *Innovation Fund Denmark*; 2025–Present.
- ❑ Fonds de la Recherche Scientifique; 2016–Present.
- ❑ Site Visit Team; Division of Engineering Education and Centers; *National Science Foundation*; 2024.
- ❑ United States–Israel Binational Science Foundation; 2022.
- ❑ Lehigh University; Proposal Red Table Review; 2022.
- ❑ Horizon 3030; *European Research Council*; 2021.
- ❑ Site Visit Team; Division of Engineering Education and Centers; *National Science Foundation*; 2020.

- ❑ Division of Electrical, Communications and Cyber Systems; *National Science Foundation*; 2020.
- ❑ King Fahd University of Petroleum and Minerals; 2019.
- ❑ Engineering 2; *Fondo Nacional de Desarrollo Científico y Tecnológico*; 2019.
- ❑ Advanced Systems Integration for Solar Technologies (ASSIST); *United States Department of Energy*; 2018–2019.
- ❑ Research Center Proposals; *Khalifa University*; 2018.
- ❑ Information and Intelligent Systems Division; *National Science Foundation*; 2018.
- ❑ General Research Fund; *Research Grants Council of Hong Kong*; 2017.
- ❑ Phase I Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR); *United States Department of Energy*; 2017.
- ❑ Technology Innovation; *Bonneville Power Administration*; 2015.
- ❑ Energy, Power, and Adaptive Systems; *National Science Foundation*; 2013.
- ❑ Chemical, Bioengineering, Environmental, and Transport Systems; *National Science Foundation*; 2012.

Technical Committees

- ❑ Member, Long-Duration Energy Storage Utility Resource Planning Modeling Working Group, Electric Power Research Institute; 2024–Present.
- ❑ Member, IEEE Standard 762 "Definitions for Use in Reporting Electric Generating and Storage Unit Reliability, Availability, and Productivity" Committee; 2024–Present
- ❑ Member, "Task Force on Capacity Value of Solar Power," IEEE Power & Energy Society, Analytic Methods for Power Systems Committee, Reliability, Risk, and Probability Applications Subcommittee; 2012–Present.
- ❑ President, "Energy, Natural Resources, and the Environment Section," Institute for Operations Research and the Management Sciences; 2026–2028.
- ❑ President-Elect, "Energy, Natural Resources, and the Environment Section," Institute for Operations Research and the Management Sciences; 2024–2026.
- ❑ Member, Academic Affairs Committee, United States Association for Energy Economics; 2022–2025.
- ❑ Past President, "Energy Systems Division," Institute of Industrial and Systems Engineers; 2023–2024.
- ❑ Technical Committee Program Chair, IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2019–2024.
- ❑ President, "Energy Systems Division," Institute of Industrial and Systems Engineers; 2022–2023.
- ❑ President-Elect, "Energy Systems Division," Institute of Industrial and Systems Engineers; 2021–2022.
- ❑ Chair, "Power System Economics Subcommittee," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2020–2022.
- ❑ Chair, "Working Group on Business Models for Energy Storage," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee, Power System Economics Subcommittee; 2019–2022.
- ❑ Member, INFORMS Chapters and Fora Committee; 2019–2022.
- ❑ Founding Chair, "Task Force on Decision Support Tools for Energy Storage Investment and Operations," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee, Power System Economics Subcommittee; 2014–2022.
- ❑ Director, "Energy Systems Division," Institute of Industrial and Systems Engineers; 2019–2021.
- ❑ Vice Chair, "Power System Economics Subcommittee," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2019–2020.
- ❑ Secretary, "Power System Economics Subcommittee," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2018–2019.
- ❑ Member, "Working Group on the Economics of Energy Storage," IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee, Power System Economics Subcommittee; 2017–2019.

Award Committees

- ❑ Member, INFORMS ENRE Section Harold Hotelling Medal for Lifetime Achievement in Energy, Natural Resources, and Environment; 2024 and 2025
- ❑ Non-Voting Observer, IISE ESD Academic Career Achievement Award; 2023–2024.
- ❑ Member, IISE OR Division Award for Excellence in the Teaching of Operations Research; 2022.
- ❑ Member, IISE ESD Outstanding Young Investigator Award; 2022.
- ❑ Member, Columbus, Ohio Chapter of IEEE Power & Energy Society; 2020–2021.
- ❑ Chair, 2018 INFORMS ENRE Section Best Young Researcher Award; 2018.
- ❑ Chair, 2017 INFORMS ENRE Section Best Young Researcher Award; 2017.
- ❑ Judge, 2014 INFORMS ENRE Section Best Student Paper Award; 2014.
- ❑ Head Judge, 2013 INFORMS ENRE Section Best Student Paper Award; 2013.

Conference Organization

- ❑ Conference Co-Chair, *International Conference on Bilevel Optimization 2026*. August, 2–5, 2026, Pittsburgh, PA.
- ❑ Session Co-Organizer and Co-Chair, "Robust Operations and Management in Energy Systems," *INFORMS Annual Meeting*. October 26–29, 2025, Atlanta, GA.
- ❑ Session Co-Organizer and Co-Chair, "Policy-Enabling Models in the Electricity Sector," *INFORMS Annual Meeting*. October 26–29, 2025, Atlanta, GA.
- ❑ Scientific Committee Member, *46th IAEE International Conference*. June 15–18, 2025, Paris, France.
- ❑ Session Co-Organizer and Co-Chair, "Market Design and Implementation," *58th Hawai'i International Conference on System Sciences*. January 7-10, 2025, Waikoloa Village, HI.
- ❑ Paper Reviewer, *58th Hawai'i International Conference on System Sciences*. January 7-10, 2025, Waikoloa Village, HI.
- ❑ Session Co-Organizer and Co-Chair, "Issues in Energy Market Modeling," *INFORMS Annual Meeting*. October 20–23, 2024, Phoenix, WA.
- ❑ Panel Co-Organizer, "The Economics of Resource Adequacy in Restructured Electricity Markets," *2024 IEEE PES General Meeting*. July 21–25, 2024, Seattle, WA.
- ❑ Session Chair, "Electricity Market," *45th IAEE International Conference*. June 23–26, 2024, Istanbul, Túrkiye.
- ❑ Program Committee Member, *45th IAEE International Conference*. June 23–26, 2024, Istanbul, Túrkiye.
- ❑ Paper Reviewer, *57th Hawai'i International Conference on System Sciences*. January 3-6, 2024, Honolulu, HI.
- ❑ Concurrent-Session Program Chair, *40th USAEE/IAEE North American Conference*. November 6–8, 2023, Chicago, IL.
- ❑ Session Co-Organizer and Co-Chair, "Game Theoretic Models of Energy Markets," *INFORMS Annual Meeting*. October 15–18, 2023, Phoenix, AZ.
- ❑ Invited Expert Panelist, *NTNU Energy Transition Conference 2023*. March 20, 2023, Trondheim, Norway.
- ❑ Session Co-Organizer and Co-Chair, "Game Theory and Energy Market Modeling," *INFORMS Annual Meeting*. October 16–19, 2022, Indianapolis, IN.
- ❑ Scientific Committee Member, *Second International Workshop on Variational Analysis and Applications for Modelling of Energy Exchange*. May 9–10, 2022, Brescia, Italy.
- ❑ Session Co-Organizer and Co-Chair, "Issues in Energy Market Design, Regulation, and Evolution," *INFORMS Annual Meeting*. October 24–27, 2021, Anaheim, CA.
- ❑ Program Committee Member, *The 22nd Conference of the International Federation of Operational Research Societies*. August 22–27, 2021.
- ❑ Panel Co-Organizer, "Eugene Litvinov Tribute," *2021 IEEE PES General Meeting*. July 25–29, 2021.
- ❑ Paper Reviewer, *2021 IEEE Madrid PowerTech*. June 27–July 2, 2021, Madrid, Spain.
- ❑ Chair, Dual Plenary Session "Shared Autonomous Electric Mobility: Triple Revolution," *1st*

IAEE Online Conference. June 7–9, 2021.

- ❑ Scientific Committee Member, *1st IAEE Online Conference*. June 7–9, 2021.
- ❑ Session Organizer and Chair, "Energy Systems," *IISE Annual Conference and Expo 2021*. May 22–25, 2021.
- ❑ Steering Committee, *Moving from Unresolved Problems to Research Questions and Directions: National Science Foundation Workshop: Unresolved Grid Edge Research Questions and Barriers*. March 23–24, 2021.
- ❑ Session Moderator, "Energy Storage," *2021 IEEE Innovative Smart Grid Technologies North America*. February 16–18, 2021.
- ❑ Publication Committee Member, *2021 IEEE Innovative Smart Grid Technologies North America*. February 16–18, 2021.
- ❑ Organizing Committee, *2020 Asia-Pacific Solar Research Conference*. November 30–December 2, 2020, Melbourne and Sydney, Australia.
- ❑ Technical Committee Member, *2020 International Conference on Smart Grids and Energy Systems*. November 23–26, 2020, Perth, Australia.
- ❑ Session Co-Organizer and Co-Chair, "Energy Storage to Maximise DER Penetration," *INFORMS Annual Meeting*. November 7–13, 2020.
- ❑ Session Co-Organizer and Co-Chair, "Energy Decarbonization," *INFORMS Annual Meeting*. November 7–13, 2020.
- ❑ Session Co-Organizer and Co-Chair, "Competition and Co-ordination in Energy Market Design," *INFORMS Annual Meeting*. November 7–13, 2020.
- ❑ Co-Chair, Energy System Track, *IISE Annual Conference and Expo 2020*. November 1–3, 2020.
- ❑ Session Co-Chair, "Planning and Operation of Transmission & Distribution Networks," *2019 9th International Conference on Power and Energy Systems*. December 10–12, 2019, Perth, Australia.
- ❑ Session Organizer and Chair, "Modeling Decarbonization of Energy Systems," *INFORMS Annual Meeting*. October 20–23, 2019, Seattle, WA.
- ❑ Cluster Chair, "Emerging Topics: Sustainable Growth," *INFORMS Annual Meeting*. October 20–23, 2019, Seattle, WA.
- ❑ Panel Co-Organizer, "Coupling of Electric Power and Natural Gas Systems," *2019 IEEE PES General Meeting*. August 4–8, 2019, Atlanta, GA.
- ❑ Minisymposium Co-Chair, "Decomposition Techniques for Large-Scale Stochastic and Robust Energy System Models," *2019 International Conference on Stochastic Programming*. July 29–August 2, 2019, Trondheim, Norway.
- ❑ Scientific Committee Member, *2019 International Conference on Stochastic Programming*. July 29–August 2, 2019, Trondheim, Norway.
- ❑ Chair, Dual Plenary Session "Load-Profile Challenges and Energy Storage," *42nd IAEE International Conference*. May 29–June 1, 2019, Montréal, Canada.
- ❑ International Programme Committee Member, *42nd IAEE International Conference*. May 29–June 1, 2019, Montréal, Canada.
- ❑ Session Organizer and Chair, "Large-Scale Optimization Applied to Energy-System Problems," *IISE Annual Conference and Expo 2019*. May 18–21, 2019, Orlando, FL.
- ❑ Panel Co-Organizer, "Prosumage and Future Utilities in a Distributed Resource Electricity System," *2018 IEEE PES General Meeting*. August 5–10, 2018, Portland, OR.
- ❑ Panel Co-Organizer, "Revisiting Electricity Markets: Lessons Learned and Future Needs," *2018 IEEE PES General Meeting*. August 5–10, 2018, Portland, OR.
- ❑ Session Co-Organizer and Co-Chair, "Decomposition Techniques to Solve Large-Scale Optimization Problems for Electricity and Natural Gas Systems," *23rd Annual International Symposium on Mathematical Programming*. July 1–6, 2018, Bordeaux, France.
- ❑ Paper Reviewer, *20th Power Systems Computation Conference*. June 11–15, 2018, Dublin, Ireland.
- ❑ Scientific Committee Member, *Workshop on 'Commodities and Energy Market Organization in the Energy Transition Context'*. June 18–19, 2018, Rueil-Malmaison, France.
- ❑ Panel Organizer. "Rate, Tariff, and Market Design for Energy Storage," *Electricity Advisory Committee Meeting*. February 20–21, 2018, Arlington, VA.

- ❑ Session Co-Organizer and Co-Chair, "Redesigning Electricity Markets and Pricing to Account for Uncertainty," *INFORMS Annual Meeting.* October 22–25, 2017, Houston, TX.
- ❑ Session Co-Organizer and Co-Chair, "Generation and Transmission Capacity-Expansion Planning," *INFORMS Annual Meeting.* October 22–25, 2017, Houston, TX.
- ❑ Session Co-Organizer and Co-Chair, "Operational Modeling for Energy Storage," *INFORMS Annual Meeting.* October 22–25, 2017, Houston, TX.
- ❑ Panel Organizer, "Decision Support Tools for Economic Valuation of Energy Storage," *2017 IEEE PES General Meeting.* July 16–20, 2017, Chicago, IL.
- ❑ Session Chair, "Energy Markets," *14th International Conference on the European Energy Market.* June 6–9, 2017, Dresden, Germany.
- ❑ Session Chair, "Spatial and Temporal Interdependencies in the Power System," *14th International Conference on the European Energy Market.* June 6–9, 2017, Dresden, Germany.
- ❑ Session Chair, "Network Pricing," *Eleventh Conference on The Economics of Energy and Climate Change.* June 6–7, 2017. Toulouse, France.
- ❑ Technical Program Committee Member, *9th Asia-Pacific Power and Energy Engineering Conference.* April 15–17, 2017. Chengdu, China.
- ❑ Session Co-Organizer and Co-Chair, "Power System Operations Under Increasing Uncertainty," *INFORMS Annual Meeting.* November 13–16, 2016, Nashville, TN.
- ❑ Session Co-Organizer and Co-Chair, "Capacity-Expansion Planning with Increasing Renewable Levels," *INFORMS Annual Meeting.* November 13–16, 2016, Nashville, TN.
- ❑ Scientific Committee Member, *Armand Peugeot Chair 3rd International Conference on Electromobility.* December 15–19, 2015, Singapore.
- ❑ Session Organizer and Chair, "Electric Transportation Systems Modelling," *INFORMS Annual Meeting.* November 1–4, 2015, Philadelphia, PA.
- ❑ Session Co-Organizer and Co-Chair, "Long-Term Electric Power System Planning Models," *INFORMS Annual Meeting.* November 1–4, 2015, Philadelphia, PA.
- ❑ Panel Organizer, "Decision Support Tools for Energy Storage Operations," *2015 IEEE PES General Meeting.* July 26–30, 2015, Denver, CO.
- ❑ Paper Reviewer, *Second International Conference on Transformations in Engineering Education.* January 5–8, 2015, Bengaluru, India.
- ❑ Session Co-Organizer and Co-Chair, "Robust and Stochastic Modeling in Power System Operations and Planning," *INFORMS Annual Meeting.* November 9–12, 2014, San Francisco, CA.
- ❑ Session Co-Organizer and Co-Chair, "Market Issues for Hydro-Dominated Electricity Systems," *INFORMS Annual Meeting.* November 9–12, 2014, San Francisco, CA.
- ❑ Technical Programme Committee Member, *3rd IET Renewable Power Generation Conference.* September 24–25, 2014, Naples, Italy.
- ❑ Local Organizing Committee Member, *2014 Mixed Integer Programming Workshop.* July 21–24, 2014, Columbus, OH.
- ❑ Session Organizer and Chair, "Operations and Planning with Energy Storage," *INFORMS Annual Meeting.* October 6–9, 2013, Minneapolis, MN.
- ❑ Technical Programme Committee Member, *2nd IET Renewable Power Generation Conference.* September 9–11, 2013, Beijing, People's Republic of China.
- ❑ International Scientific Committee Member, *10th International Conference on the European Energy Market.* May 28–30, 2013, Stockholm, Sweden.
- ❑ Session Organizer and Chair, "Research Needs of the Electricity Industry," *INFORMS Annual Meeting.* October 14–17, 2012, Phoenix, AZ.
- ❑ Cluster Chair, "ENRE Energy" *INFORMS Annual Meeting.* October 14–17, 2012, Phoenix, AZ.
- ❑ International Scientific Committee Member, *9th International Conference on the European Energy Market.* May 10–12, 2012, Florence, Italy.
- ❑ Cluster Chair, "ENRE Energy," *INFORMS Annual Meeting.* November 13–16, 2011, Charlotte, NC.
- ❑ Session Organizer and Chair, "Capacity Expansion," *INFORMS Annual Meeting.* November 13–16, 2011, Charlotte, NC.
- ❑ Cluster Chair, "Energy," *INFORMS Midwest Conference.* August 1–2, 2011, Columbus, OH.

- ❑ Panel Organizer and Chair, "Challenges in Vehicle Electrification," *INFORMS Midwest Conference*. August 1–2, 2011, Columbus, OH.
- ❑ Session Chair, "Optimal Power Plant Operations," *34th IAEE International Conference*. June 19–23, 2011, Stockholm, Sweden.
- ❑ Session Organizer and Chair, "Joint Session Energy/ENRE Energy: Impacts of Supply Uncertainty on Power System Planning and Operations," *INFORMS Annual Meeting*. November 7–10, 2010, Austin, TX.
- ❑ Session Organizer and Chair, "Power System Impacts of Electrified Transportation," *INFORMS Annual Meeting*. November 7–10, 2010, Austin, TX.
- ❑ Session Organizer and Chair, "Modeling Benefits of Demand Management in Power Systems," *INFORMS Annual Meeting*. November 7–10, 2010, Austin, TX.
- ❑ Session Organizer, "Energy Storage Applications in Electricity Markets," *32nd IAEE International Conference*. June 21–24, 2009, San Francisco, CA.

Student-Organization Advising

- ❑ INFORMSOSU Student Chapter (2014–2022)
- ❑ The Ohio State University Alpha Pi Mu Student Chapter (2011–2022)

Professional Membership

- ❑ Member, American Association for the Advancement of Science (AAAS)
- ❑ Fellow, Asia-Pacific Artificial Intelligence Association (AAIA)
- ❑ Fellow, Artificial Intelligence Industry Academy (AIIA)
- ❑ Fellow, Institute of Electrical and Electronics Engineers (IEEE)
- ❑ Senior Member, Institute for Operations Research and Management Sciences (INFORMS)
- ❑ Senior Member, Institute of Industrial and Systems Engineers (IISE)
- ❑ Member, International Association for Energy Economics (IAEE)
- ❑ Member, National Academy of Artificial Intelligence (NAAI)
- ❑ Full Member, Sigma Xi
- ❑ Member, United States Association for Energy Economics (USAEE)

Grants

- ❑ Alfred P. Sloan Foundation (PI: M. G. Morgan)
  Project: Initiating the Work of a Consortium to Facilitate the Expansion of U.S. Transmission Capacity
  Duration 2025-2027 ($609,843)
- ❑ United States Department of Energy (PI: R. Masiello)
  Project: Integrating Long-Duration Storage into Planning, Markets, and Operations
  Duration: 2025-2027 ($1,765,582)
- ❑ Wilton E. Scott Institute for Energy Innovation
  Project: Improving Electric-Power Resilience
  Duration: 2024-2025 ($75,000)
- ❑ Deutsche Forschungsgemeinschaft
  Project: SPP 2403—Carnot Batteries: Inverse Design from Markets to Molecules
  Duration: 2023-2026 (€30,000)
- ❑ Electric Power Research Institute
  Project: Power System Resilience, Strategies to Decarbonize, Non-standard Transmission ROWs, Climate READi, and AI/ML
  Duration: 2023-2025 ($400,000)
- ❑ Ohio State Energy Partners
  Project: Convergent Graduate Training and EmPOWERment for a Sustainable Energy Future
  Duration: 2022 ($35,000)
- ❑ United States Department of Energy (PI: A. MacKay)
  Project: automated BUilding Control with Knowledge of distributed EnergY resources and Elec-

trical Systems for Grid Offerings (BUCKEYES GO!)
Duration: 2022-2027 ($4,900,000)

- ❑ Ohio State Energy Partners
  Project: Convergent Graduate Training and EmPOWERment for a Sustainable Energy Future
  Duration: 2021 ($35,000)
- ❑ National Science Foundation
  Project: EPCN:Solving Electricity-Expansion Problems Efficiently via Decomposition (SEEPED)—Research Experiences for Undergraduates Supplement
  Duration: 2020 ($8,000)
- ❑ Ohio State Energy Partners
  Project: NRT Program Coordinator
  Duration: 2020 ($35,000)
- ❑ National Science Foundation
  Project: NRT-HDR: Convergent Graduate Training and EmPOWERment for a Sustainable Energy Future
  Duration: 2019-2024 ($2,980,383)
- ❑ The Ohio State University (PI: J. Y. Lee)
  Project: Developing Capacity for Seasonal Energy Storage Capacity
  Duration: 2018-2019 ($21,450)
- ❑ National Science Foundation
  Project: EPCN:Solving Electricity-Expansion Problems Efficiently via Decomposition (SEEPED)
  Duration: 2018-2023 ($299,203)
- ❑ The Ohio State University (PI: J. Bielicki)
  Project: Engineering the Subsurface to Seasonally Store Energy While Sequestering CO_2
  Duration: 2018-2019 ($16,000)
- ❑ North China Electric Power University
  Project: Solving Electricity-Expansion Problems Efficiently via Decomposition
  Duration: 2018-2019 (50,000 CNY)
- ❑ The Ohio State University
  Project: Advancing the Decarbonization of Electric Power Systems with Concentrating Solar Thermal Generation
  Duration: 2018 ($1,000)
- ❑ The Ohio State University (PI: J. Y. Lee)
  Project: The Impact of Electric Vehicles on Resilience in Smart Cities
  Duration: 2017-2018 ($49,900)
- ❑ Electric Power Research Institute
  Project: Energy Storage Capacity Valuation
  Duration: 2017-2018 ($87,386)
- ❑ Greif, Inc. (PI: S. Davanloo Tajbakhsh)
  Project: Rigid Packaging Product Demand Forecasting: Pilot Study
  Duration: 2017 ($16,922)
- ❑ National Renewable Energy Laboratory
  Project: Concentrating Solar Power Grid Storage
  Duration: 2017 ($90,663)
- ❑ The Ohio State University
  Project: Centrally-committed vs. Self-committed Markets for Wholesale Electricity: An Experimental Study
  Duration: 2017 ($3,000)
- ❑ The Ohio State University (PI: G. Bayraksan)
  Project: Energy and Water Infrastructure Planning Under Extreme Events
  Duration: 2016-2017 ($45,000)
- ❑ National Science Foundation (PI: A. J. Conejo)
  Project: EAGER: Toward Renewable Dominated Electric Energy Systems (RENDES)
  Duration: 2015-2018 ($292,665)

- ❑ Economic Research Institute for ASEAN and East Asia
  Project: Wholesale and Retail Market Design for Incentivizing Renewable Energy Adoption
  Duration: 2014-2015 ($8,000)
- ❑ Energy Foundation
  Project: Electric Vehicle Industry Cluster in Ohio
  Duration: Spring-Fall 2014 ($40,000)
- ❑ National Renewable Energy Laboratory
  Project: Photovoltaic Capacity Credit Study
  Duration: 2012-2015 ($139,886)
- ❑ National Science Foundation
  Project: GRDS: Decomposition and Precomputation Algorithms for Large-Scale Equilibrium Computation Models of Energy Systems
  Duration: Spring-Autumn 2012 ($41,000)
- ❑ United States Department of Energy (PI: G. Rizzoni)
  Project: GATE: Energy Efficient Vehicles for Sustainable Mobility
  Duration: 2011-2016 ($910,000)
- ❑ National Renewable Energy Laboratory
  Project: Photovoltaic Capacity Credit Study
  Duration: Spring-Autumn 2011 ($50,000)
- ❑ United States Department of Energy (PI: G. Rizzoni)
  Project: U.S.-China Clean Energy Research Center-Clean Vehicles (CERC-CV)
  Duration: 2011-2015 ($3,000,000)
- ❑ National Science Foundation
  Project: CDI-Type II: Energy policy and investment analysis driven by large-scale integrated power system simulations
  Duration: 2010-2016 ($1,675,000)
- ❑ National Renewable Energy Laboratory
  Project: Analysis of co-located wind and concentrating solar power plants
  Duration: 2010-2011 ($40,000)
- ❑ National Renewable Energy Laboratory
  Project: CSP Capacity Credit Study
  Duration: 2010-2011 ($50,000)
- ❑ National Renewable Energy Laboratory
  Project: Concentrating Solar Power (CSP)/Thermal Storage Dispatch Study
  Duration: Winter 2008 ($22,000)
- ❑ National Science Foundation (PI: S. Oren)
  Project: Development of Course in Market Engineering with Application to Electricity Markets
  Duration: 2004-2006 ($120,000)
- ❑ United States Department of Energy
  Project: Testing Strategic Bidding Models of Spot Electricity Markets
  Duration: Summer 2004 ($22,000)