



Office of the Ohio Consumers' Counsel

Via Email: [REDACTED]
January 5, 2022

The Honorable Mike DeWine
Governor, State of Ohio
77 South High Street, 30th Floor
Columbus, Ohio 43215

Re: OCC Nominations for Public Representative on the Ohio Power Siting Board

Dear Governor DeWine,

I hope that you, your family and staff are well. Thank you for your leadership during this time of health and financial challenges for many Ohioans.

Ohio Revised Code Section 4906.02(A) provides for the Ohio Power Siting Board (Board) to include "a representative of the public who shall be an engineer and shall be appointed by the governor, from a list of three nominees submitted to the governor by the office of the consumers' counsel."

Accordingly, I respectfully provide three nominees for your appointment of one to serve as a representative of the public on the Board.

The nominees are as follows:

- Joel Baetens, P.E.
- Ramteen Sioshansi, Ph.D.
- Gregory Slone

The nominees' resumes are enclosed with contact information. OCC interviewed nominees for purposes of developing this list for you. We are available to assist you and your staff with any questions. Thank you and best wishes for 2022.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Weston".

Bruce Weston
Ohio Consumers' Counsel

Enclosures

cc: Michael Watkins, Chair, OCC Governing Board
Larry Sauer, Deputy Consumers' Counsel
Michael Hall, Chief of Staff, Office of the Governor
Anne Vogel, Deputy Policy Director and Energy Advisor
Joel Baetens
Ramteen Sioshansi
Gregory Slone

JOEL BAETENS, P.E.
Energy Engineer

WORK EXPERIENCE

Oberlin College – Senior Manager Energy and Resources Oberlin, OH January '20-Present
Expand and maintain campus building sub-metering system and BuildingOS front end. Perform construction document review as a primary owner's representative for \$140M Sustainable Infrastructure Program. The Sustainable Infrastructure Program will replace steam distribution with low temperature hot water, expand chilled water, update building systems, and add heat recovery and ground coupled heat pump technology as primary central plant equipment. Engage with the campus community through public and academic presentations detailing various campus sustainability initiatives.

Ohio University – Director of Utilities Athens, OH September '15-October '19
Direct utility systems transition from coal/steam toward a renewable energy ready system through a \$20M transition from Coal to Gas, an expansion of chilled water and electrical distribution, and modernization of campus design standards. Conversion project reduced CO2 by 50% and campus EUI by 12.5%. Emergency Planning Team Leader for electrical and thermal systems. Expanded plant controls and sub metering to 345 meters. Engaged with the campus community through education, tours, presentation of metrics, and sustainable planning.

Eastern Michigan University – Manager, Energy & Utilities Ypsilanti, MI March '14-August '15
Managed operation of 3.5 MW cogeneration based central energy plant with 41kV primary, electrical generation and distribution systems, central chilled water loops, building automation systems, and relationships with utility companies. Identified energy efficiency measures in new construction, major renovations and stand-alone projects. Performed job functions of Heating Plant Administrator, Energy Manager, Utility Manager, and HVAC shop manager.

Clean Energy Coalition – Project Manager Ann Arbor, MI October '10-March '14
Conducted commercial energy assessments, provided consultation to clients, managed resulting energy efficiency construction projects, and tracked energy savings. Developed concepts and diagrams to incorporate energy efficiency and renewable energy to optimize system energy consumption and product output. Managed alternative fuel vehicle infrastructure projects. Developed calculation and reporting tools and provided cross training to staff.

Consultant – Energy Assessor Dayton, OH June '10-October '10
Conducted commercial energy assessments on a contractual basis. Led site visits, conducted utility billing analysis, calculated energy savings from recommended energy conservation measures, provided detailed financial analysis, and presented findings. Clients and partnerships included: Biltmore Towers with Community Action Partnership, Covington Exempted Village Schools and Eaton Community Schools with Energy Optimizers, USA.

University of Dayton – Graduate Assistant Dayton, OH August '09-December '10
Led conductivity analysis of autoclaved aerated concrete to determine the effective R-value of products for local building material supplier. Designed and performed experiments to determine material R-value.

501c3 Organization PHEED – Founder Detroit, MI October '08-Present
Created the 501c3 non-profit organization People Helping Everyone Eat Daily (PHEED) to eliminate food waste and solve hunger and other social issues.

EDUCATION

M.S.	Renewable and Clean Energy	University of Dayton	December 2010
B.S.	Electrical and Computer Engineering	Oakland University	May 2009

CONTACT
INFORMATION

Department of Integrated Systems Engineering
The Ohio State University
298 Baker Systems Engineering Building
1971 Neil Avenue
Columbus, OH 43210-1271
[REDACTED]
[REDACTED]

PROFESSIONAL
EXPERIENCE

The Ohio State University

Professor; Department of Electrical and Computer Engineering; 2021–Present
Director; EmPOWERment NSF Research Traineeship Program; 2019–Present
Professor; Department of Integrated Systems Engineering; 2018–Present
Associate Fellow; Center for Automotive Research; 2012–Present
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

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; Summer 2006

EDUCATION

University of California, Berkeley

Ph.D., 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

M.S., Industrial Engineering and Operations Research, Spring 2004

University of London, The London School of Economics and Political Science

M.Sc., Econometrics and Mathematical Economics, July 2002

University of California, Berkeley

B.A., 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

PUBLICATIONS

Appeared/Accepted

1. H. J. 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*, 2021. in press.
2. R. Sioshansi, P. Denholm, J. Arteaga, S. Awara, S. Bhattacharjee, A. Botterud, W. Cole, A. Cortés, A. de Queiroz, J. DeCarolis, Z. Ding, N. DiOrío, 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*, 2021. in press.
3. 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.
4. R. 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.
5. 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.
6. 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.
7. B. 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.
8. M. Muratori, M. Alexander, D. Arent, M. Bazilian, P. Cazzola, E. M. Dede, J. Farrell, C. Gearhart, D. 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.
9. Y. Liu, R. 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.
10. 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.
11. 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.
12. 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.
13. 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.

14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. A. S. Siddiqui, R. Sioshansi, and A. J. Conejo. Merchant Storage Investment in a Restructured Electricity Industry. *The Energy Journal*, 40:129–163, 2019.
25. 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.
26. 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.
27. A. J. Conejo and R. Sioshansi. Electricity Market: A Conversation on Future Designs. *IEEE Power and Energy Magazine*, 17:18–19, January-February 2019.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.

33. 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.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. 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.
43. R. Sioshansi. Retail Electricity Tariff and Mechanism Design to Incentivize Distributed Renewable Generation. *Energy Policy*, 95:498–508, August 2016.
44. 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.
45. 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.
46. R. Sioshansi. Optimized Offers for Cascaded Hydroelectric Generators in a Market with Centralized Dispatch. *IEEE Transactions on Power Systems*, 30:773–783, March 2015.
47. 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.
48. R. Sioshansi. Pricing in Centrally Committed Markets. *Utilities Policy*, 31:143–145, December 2014.
49. 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.
50. 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.
51. 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.
52. 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.
53. R. Sioshansi. When Energy Storage Reduces Social Welfare. *Energy Economics*, 41:106–116, January 2014.

54. 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.
55. 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.
56. R. Sioshansi and P. Denholm. Benefits of Colocating Concentrating Solar Power and Wind. *IEEE Transactions on Sustainable Energy*, 4:877–885, October 2013.
57. S. H. Madaeni and R. Sioshansi. The Impacts of Stochastic Programming and Demand Response on Wind Integration. *Energy Systems*, 4:109–124, June 2013.
58. 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.
59. 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.
60. 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.
61. 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.
62. R. Sioshansi. ‘Handbook of Renewable Energy Technology,’ edited by Ahmed F. Zobaa and Ramesh C. Bansal (book review). *The Energy Journal*, 34:246–249, 2013.
63. 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.
64. R. Sioshansi and A. Tignor. Do Centrally Committed Electricity Markets Provide Useful Price Signals? *The Energy Journal*, 33:97–118, 2012.
65. 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.
66. 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.
67. 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.
68. 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.
69. 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.
70. R. Sioshansi. Emissions Impacts of Wind and Energy Storage in a Market Environment. *Environmental Science & Technology*, 45:10728–10735, December 2011.
71. 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.
72. 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.
73. R. Sioshansi and E. Nicholson. Towards Equilibrium Offers in Unit Commitment Auctions with Nonconvex Costs. *Journal of Regulatory Economics*, 40:41–61, August 2011.
74. 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.
75. R. Sioshansi. Increasing the Value of Wind with Energy Storage. *The Energy Journal*, 32:1–30, 2011.
76. R. Sioshansi, S. S. Oren, and R. O’Neill. Three-Part Auctions versus Self-Commitment in Day-ahead Electricity Markets. *Utilities Policy*, 18:165–173, December 2010.

77. 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.
78. 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.
79. R. Sioshansi and D. Hurlbut. Market Protocols in ERCOT and Their Effect on Wind Generation. *Energy Policy*, 38:3192–3197, July 2010.
80. 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.
81. R. Sioshansi and P. Denholm. The Value of Plug-In Hybrid Electric Vehicles as Grid Resources. *The Energy Journal*, 31:1–23, 2010.
82. R. Sioshansi. Welfare Impacts of Electricity Storage and the Implications of Ownership Structure. *The Energy Journal*, 31:173–198, 2010.
83. 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.
84. 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.
85. 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.
86. 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.
87. 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.
88. 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.
89. 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. 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.
2. 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*. 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. Bhattacharjee, R. Sioshansi, and H. Zareipour. Energy Storage Participation in Wholesale Markets: The Impact of State-of-Energy Management.
2. M. A. Mansouri and R. Sioshansi. Using Interim Recommitment to Reduce the Operational-Cost Impact of Wind Uncertainty.
3. W. Gu and R. Sioshansi. Market Equilibria with Energy Storage as Flexibility Resources.
4. Y. Jiang and R. Sioshansi. What Duality Theory Tells Us About Giving Market Operators the Authority to Dispatch Energy Storage.
5. 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, "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.
2. 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.
3. R. Sioshansi, "Using Concentrating Solar Power/Solar Thermal Plants as Capacity Resources," *Trans-Atlantic Cooperation on Energy Market Modeling*. November 8-12, 2021, Espoo, Finland.
4. R. Sioshansi, "Resource-Adequacy Assessment of Energy Storage," *Trans-Atlantic Cooperation on Energy Market Modeling*. November 8-12, 2021, Espoo, Finland.
5. K. Yagi, R. Sioshansi, and P. Denholm, "Using Concentrating Solar Power Plants as Capacity Resources," *INFORMS Annual Meeting*. October 24-27, 2021, Anaheim, CA.
6. 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.
7. R. Sioshansi, "Approaches to Electricity Demand Response," invited seminar for Isfahan Chamber of Commerce. October 13, 2021.
8. R. Sioshansi, "Future Directions for Industrial Engineering," invited seminar in School of Industrial Engineering, Purdue University. September 24, 2021, West Lafayette, IN.
9. 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.
10. R. Sioshansi, "Can We Get Market and Regulatory Designs 'Right' for Energy Storage?" invited seminar at IFP School. September 8, 2021, Rueil-Malmaison, France.
11. S. Varghese and R. Sioshansi, "The Price is Right? Incentives for Deployment and Use of Distributed Energy Resources," *2021 IEEE PES General Meeting*. July 26-29, 2021.
12. 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.
13. 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.
14. R. Sioshansi, "Technical Pathways to and Economic Issues with Decarbonizing Electricity Production," IEEE Power & Energy Society Region 2 Webinar. April 7, 2021.
15. 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.

16. 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.
17. 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.
18. 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.
19. 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.
20. R. Sioshansi, "Market and Regulatory Design for Energy Storage," keynote speaker in *2020 International Conference on Smart Grids and Energy Systems*. November 23-26, 2020, Perth, Australia.
21. S. Varghese and R. Sioshansi, "Optimising hybrid PV and ES systems with capacity payments," *INFORMS Annual Meeting*. November 7-13, 2020.
22. 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.
23. K. Yagi and R. Sioshansi, "Impacts Of Decarbonization Policy On Price Formation In Wholesale Electricity Markets," *INFORMS Annual Meeting*. November 7-13, 2020.
24. 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.
25. R. Sioshansi, "Teaching Panel Discussion," *IISE Annual Conference & Expo 2020*. November 1-3, 2020.
26. 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.
27. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. May 28-29, 2020.
28. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. February 26-27, 2020, Arlington, VA.
29. R. Sioshansi, "Energy Market Design," invited discussion before the staff of the Australian Energy Market Commission. December 18, 2019, Sydney, Australia.
30. 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.
31. R. Sioshansi, "What are the Technical Pathways to and Economic Issues with Decarbonizing Electricity Production?" keynote speaker in *2019 9th International Conference on Power and Energy Systems*. December 10-12, 2019, Perth, Australia.
32. 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.
33. R. Sioshansi, "Managing the Seams Between Electromobility and Power Systems," keynote speaker in *Smart Mobility and Intelligent Vehicles 2019*. November 12, 2019, Paris, France.
34. R. Sioshansi, "Commentary on Commodities," panelist in *Distribution Network Economics Workshop*. November 7-8, 2019, Boston, MA.
35. 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.

36. 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 CO₂ and Geothermal Energy to Decarbonize the Electricity System," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
37. R. Sioshansi and A. J. Conejo, "Temporal and Spatial Decomposition of Power System Planning Problems," *INFORMS Annual Meeting*. October 20-23, 2019, Seattle, WA.
38. 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.
39. 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.
40. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. October, 16-17, 2019, Arlington, VA.
41. 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.
42. 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.
43. 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.
44. R. Sioshansi, "Who Should Operate Energy Storage in Restructured Electricity Markets?" *2019 IEEE PES General Meeting*. August 4-8, 2019, Atlanta, GA.
45. A. J. Conejo and R. Sioshansi, "A Financial Framework for Distribution Systems with Increasing Behind-the-Meter Resources," *2019 IEEE PES General Meeting*. August 4-8, 2019, Atlanta, GA.
46. 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.
47. 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.
48. 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.
49. R. Sioshansi, "Technical Pathways to and Economic Issues with Decarbonizing Electricity Production," *IISE Annual Conference and Expo 2019*. May 18-21, 2019, Orlando, FL.
50. R. Sioshansi, "Decarbonization, Energy Storage, and Materials Research Needs," *2019 OSU Materials Week*. May 7-9, 2019, Columbus, OH.
51. 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.
52. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. March 13-14, 2019, Arlington, VA.
53. R. Sioshansi, "Coordinating Operations of Electricity and Natural Gas Systems," *Multi-Energy Systems Workshop*. March 11-12, 2019, Eidgenössische Technische Hochschule Zürich, Zürich, Switzerland.
54. R. Sioshansi, "Generation Investment, Price Formation, and Cost Recovery," *Winter School 2019*. March 3-8, 2019, Kvitfjell, Norway.
55. 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.

56. 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.
57. 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.
58. 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.
59. 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 CO₂-Bulk Energy Storage for Transmission Deferral," *INFORMS Annual Meeting*. November 4-7, 2018, Phoenix, AZ.
60. 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.
61. 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.
62. 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.
63. R. Sioshansi, "How Much Does Energy Storage Contribute to Power System Reliability?" invited seminar at Sandia National Laboratories. September 28, 2018, Albuquerque, NM.
64. 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.
65. 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.
66. 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.
67. 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.
68. A. J. Conejo and R. Sioshansi, "Rethinking restructured electricity market design: Lessons learned and future needs," invited brown bag seminar at Deutsches Institut für Wirtschaftsforschung. July 19, 2018, Berlin, Germany.
69. R. Sioshansi, "Energy Storage Subcommittee Update," *Electricity Advisory Committee Meeting*. July 9-10, 2018, Arlington, VA.
70. 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.
71. 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.
72. 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.

73. 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.
74. R. Sioshansi. "Can We Get Market Design and Regulation Correct for Energy Storage?" keynote speech at *Workshop on 'Commodities and Energy Market Organization in the Energy Transition Context'*. June 18-19, 2018, Rueil-Malmaison, France.
75. 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, The Netherlands.
76. 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.
77. R. Sioshansi, "Estimating the Capacity Value of Energy-Limited Storage in Wholesale Energy Markets," *EPRI ISO/RTO Webcast*. March 30, 2018.
78. R. Sioshansi, "EAC Energy Storage Subcommittee: Update," *Electricity Advisory Committee Meeting*. February 20-21, 2018, Arlington, VA.
79. J. D. Ogland-Hand, J. M. Bielicki, E. S. Nelson, B. M. Aadms, 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.
80. 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.
81. 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.
82. 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.
83. 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.
84. 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.
85. A. J. Conejo and R. Sioshansi, "A Market Design Integrating The View Of Stochastic Producers," *INFORMS Annual Meeting*. October 22-25, 2017, Houston, TX.
86. 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.
87. 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.
88. 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.
89. R. Sioshansi, "Managing Loads and Operation of Electric Power Systems," *Saudi Electricity Forum*. October 10-12, 2017, Riyadh, Saudi Arabia.
90. 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.
91. R. Sioshansi, "EAC Energy Storage Subcommittee: Update," *Electricity Advisory Committee Meeting*. September 13-14, 2017, Arlington, VA.

92. 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 the Joint Research Centre and Directorate-General of Energy of the European Union on *Redesigning Restructured Electricity Markets: Accommodating Variable Renewables, Distributed Energy Resources, and System Security*. July 24, 2017, Brussels, Belgium.
93. 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.
94. 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.
95. 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.
96. R. Sioshansi and H. B. Gooi, "Policy Framework for Energy Storage Systems in Singapore," invited seminar at Energy Market Authority. June 21, 2017, Singapore.
97. R. Sioshansi, "Energy Security and Resilience Benefits of Electric Energy Storage," plenary panelist at *40th Annual IAEE International Conference*. June 18-21, 2017, Singapore.
98. 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," keynote speech at *14th International Conference on the European Energy Market*. June 6-9, 2017, Dresden, Germany.
99. R. Sioshansi, "Using Storage-Capacity Rights to Overcome the Cost-Recovery Hurdle for Energy Storage," *The Economics of Energy and Climate Change*. June 6-7, 2017, Toulouse, France.
100. R. Sioshansi, "'Optimal network tariffs for renewable electricity production,' by Thomas P. Tangerås and Frank Wolak," invited discussant, *The Economics of Energy and Climate Change*. June 6-7, 2017, Toulouse, France.
101. 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.
102. R. Sioshansi, "PowerForward: Economic and Regulatory Innovation to Achieve the Power System of the Future," invited address to the *Public Utilities Commission of Ohio*. April 18-20, 2017, Columbus, OH.
103. 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.
104. 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.
105. R. Sioshansi and A. J. Conejo, "Electricity Grid of the Future," *Presentation to Management of AEP Ohio*. January 12, 2017, Columbus, OH.
106. Y. Liu and R. Sioshansi, "Electricity Capacity Expansion and Cost Recovery With Renewables," *INFORMS Annual Meeting*. November 13-16, 2016, Nashville, TN.
107. 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.
108. 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.
109. 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.

110. 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.
111. R. Sioshansi, "Storage Assessment and Five-Year Plan: Update and EAC Approval," *Electricity Advisory Committee Meeting*. September 28-29, 2016, Arlington, VA.
112. 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.
113. 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.
114. R. Sioshansi, "Biennial Storage Program Assessment: Update and Work Plan," *Electricity Advisory Committee Meeting*. June 1-2, 2016, Arlington, VA.
115. R. Sioshansi, "Energy Storage Subcommittee Activities and Plans," *Electricity Advisory Committee Meeting*. June 1-2, 2016, Arlington, VA.
116. A. J. Conejo and R. Sioshansi, "A market design integrating the view of stochastic producers," keynote speech at Third General Consortium Meeting, Centre for IT-Intelligent Energy Systems in Cities, Danmarks Tekniske Universitet. May 25, 2016, Lyngby, Denmark.
117. 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.
118. R. Sioshansi, "Biennial Storage Program Assessment: Update and Work Plan," *Electricity Advisory Committee Meeting*. March 17-18, 2016, Arlington, VA.
119. 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.
120. 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.
121. R. Sioshansi, "Vehicle-Grid System Integration Policies," *Review of DOE CERC-CVC 1.0 Programs*. January 20, 2016, Columbus, OH.
122. 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.
123. 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.
124. F. Wu and R. Sioshansi, "Public Electric Vehicle Fast Charging Station Management Strategies," *INFORMS Annual Meeting*. November 1-4, 2015, Philadelphia, PA.
125. Y. Liu and R. Sioshansi, "Stochastic Generation and Transmission Investment Planning Model," *INFORMS Annual Meeting*. November 1-4, 2015, Philadelphia, PA.
126. 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.
127. 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.
128. R. Sioshansi, "'Big' Problems in Energy Systems," invited talk at the *JPMorgan Chase & Company Analytics Lunch and Learn Series*. July 13, 2015, Columbus, OH.

129. 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.
130. 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.
131. 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.
132. R. Sioshansi, "Stochastic Dynamic Programming Models for Co-Optimizing Storage Operations," *22nd International Symposium on Mathematical Programming*. July 12-17, 2015, Pittsburgh, PA.
133. 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.
134. 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.
135. 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.
136. R. Sioshansi, "Stochastic Dynamic Programming and Energy Storage," *Winter School 2015 in Energy Systems and Markets*. 22-28 March, 2015, Kvitfjell, Norway.
137. 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.
138. 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.
139. R. Sioshansi, "Optimizing Offers for Cascaded Hydroelectric Generators in a Market with Centralized Dispatch," *INFORMS Annual Meeting*. November 9-12, 2014, San Francisco, CA.
140. 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.
141. R. Sioshansi, "The Economics of Energy Storage," *International Summer School ENERstore 2014*. September 22-26, 2014, Technische Universität Dresden, Dresden, Germany.
142. 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.
143. 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.
144. R. Sioshansi, "Energy Storage," invited tutorial to the *Ohio Consumers' Counsel*. July 15, 2014, Columbus, OH.
145. R. Sioshansi, "The Role of Vehicle to Grid With Renewable Resources in Electricity Markets," *Armand Peugeot Chair 1st International Conference on "Electromobility: Challenging Issues"*, Invited Keynote Speaker and Roundtable Participant. December 19-20, 2013, Paris, France.
146. R. Sioshansi, "Welfare Effects of Energy Storage: Market Structure, Ownership, and the Unknown," invited seminar at Friedrich-Alexander-Universität. December 16, 2013, Nürnberg, Germany.
147. 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.

148. 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.
149. 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.
150. R. Sioshansi, "Capacity Cost Allocation and Distributed Renewables," *IET Renewable Power Generation Conference 2013*, Invited Keynote Speaker. September 19-20, 2013, Beijing, People's Republic of China.
151. 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.
152. 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.
153. R. Sioshansi, "Home Energy Management," *The Ohio State University/Battelle Memorial Institute Smart Grid Collaboration Meeting*. January 23, 2013, Columbus, OH.
154. S. H. Madaeni and R. Sioshansi, "Demand Response Can Improve the Emission Benefits of Wind," *The Economics of Energy Markets*. January 17-18, 2013, Toulouse, France.
155. 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.
156. S. H. Madaeni, R. Sioshansi, and P. Denholm, "Capacity Value of Photovoltaic Power," *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
157. R. Sioshansi and A. Tignor, "Do Centrally Committed Markets Provide Useful Price Signals?" *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
158. 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.
159. X. Xi, R. Sioshansi, and V. Marano, "Optimal Location of Public Electric Vehicle Charging Infrastructure," *INFORMS Annual Meeting*. October 14-17, 2012, Phoenix, AZ.
160. 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.
161. 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.
162. 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.
163. 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.
164. R. Sioshansi, "Price and Investment Implications of Renewables," invited panelist at *Ohio Clean Energy Transmission Summit*. August 6, 2012, Columbus, OH.
165. 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.
166. 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.
167. 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.

168. R. Sioshansi, "Impact of Renewable on System CO₂ Emission," invited presentation at Cummins Science & Technology Council Meeting. June 27, 2012, Columbus, IN.
169. 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.
170. R. Sioshansi, "Transportation Electrification: What are the Benefits and Challenges?" invited seminar at IFP School. June 11-12, 2012, Rueil-Malmaison, France.
171. 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.
172. 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.
173. 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.
174. R. Sioshansi, "Market and Policy Barriers to Energy Storage," *Renewable & Sustainable Energy Technology Workshop*. April 12-13, 2012, Los Angeles, CA.
175. 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.
176. R. Sioshansi, and E. Nicholson, "Comparison of Centrally and Self-Committed Electricity Markets," *INFORMS Annual Meeting*. November 13-16, 2011, Charlotte, NC.
177. R. Sioshansi and P. Denholm, "Benefits of Co-Locating Wind and Concentrating Solar Power," *INFORMS Annual Meeting*. November 13-16, 2011, Charlotte, NC.
178. 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.
179. 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.
180. 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.
181. R. Sioshansi, "Advanced Energy Technologies: Overview of Research Activities," invited seminar at Battelle Memorial Institute. September 12, 2011, Columbus, OH.
182. 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.
183. R. Sioshansi, "Market Impacts and Interactions in the Energy/Climate Nexus," NSF Workshop on *Engineering & Social Response to the Energy-Climate Nexus*. June 23-24, 2011, Arlington, VA.
184. 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.
185. 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.
186. 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.
187. R. Sioshansi, "Addressing Computational Issues in Large-Scale Models," *EFRI-RESIN Workshop*. January 13-14, 2011, Tucson, AZ.
188. R. Sioshansi, "Increasing the Value of Wind with Energy Storage." *INFORMS Annual Meeting*. November 7-10, 2010, Austin, TX.

189. 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.
190. R. Sioshansi, "The Impact of Electricity Tariffs on PHEVs," *INFORMS Annual Meeting*. November 7-10, 2010, Austin, TX.
191. 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.
192. 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.
193. 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.
194. 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.
195. 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.
196. R. Sioshansi, "Using Storage to Increase the Market Value of Wind Generation," *The Economics of Energy Markets*. January 28-29, 2010, Toulouse, France.
197. R. Sioshansi, "Welfare and Incentive Effects of Energy Storage," *INFORMS Annual Meeting*. October 11-14, 2009, San Diego, CA.
198. R. Sioshansi and P. Denholm, "Net Emissions Impacts of Plug-In Hybrid Electric Vehicles," *INFORMS Annual Meeting*. October 11-14, 2009, San Diego, CA.
199. 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.
200. 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.
201. 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.
202. 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.
203. 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.
204. 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.
205. 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.
206. 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.
207. 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.
208. R. Sioshansi and W. Short, "Evaluating the Impacts of Real-Time Pricing on the Usage of Wind Generation," *The Economics of Energy Markets*. June 20-21, 2008, Toulouse, France.
209. R. Sioshansi, "Cournot versus Supply Functions: What does the data tell us?" by Bert Willems, Ina Rumiantseva, and Hannes Weigt," invited discussant, *The Economics of Energy Markets*. June 20-21, 2008, Toulouse, France.

210. 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.
211. R. Sioshansi and E. Nicholson, "Equilibrium Bidding in Unit Commitment Auctions," *INFORMS Annual Meeting*. November 4-7, 2007, Seattle, WA.
212. 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.
213. 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.
214. R. Sioshansi and S. Oren, "Do Supply Function Equilibrium Models Describe Behavior in Electricity Spot Markets: An Empirical Analysis of the ERCOT Market," *The Economics of Electricity Markets*. June 2-3, 2005, Toulouse, France.
215. R. Sioshansi and S. Oren, "Do Supply Function Equilibrium Models Describe Behavior in Electricity Spot Markets: An Empirical Analysis of the ERCOT Market," *UC Energy Institute Seminar*. March 11, 2005, Berkeley, CA.
216. 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.
217. S. Oren and R. Sioshansi, "Joint Energy and Reserves Auction with Opportunity Cost Payment for Reserves," *The Economics of Energy Markets*. January 16-17, 2004, Toulouse, France.

TEACHING

Instructor

- Nonlinear and Dynamic Optimization (undergraduate); The Ohio State University; Spring 2013–Autumn 2021
- Foundations of Data-Driven Sustainable Energy Systems (graduate); The Ohio State University; Autumn 2020–2021
- Restructured Electricity Market Design (graduate-level short course); IFP School; Summer 2012–2021
- 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 (Ph.D.-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

Advisory Work

- ❑ 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)
- ❑ Peer Review Panelist; 2020 DOE Office of Electricity Energy Storage Program Peer Review, United States Department of Energy (2020)
- ❑ 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)
- ❑ Peer Review Panelist; Department of Energy Office of Electricity Energy Storage Peer Review 2019, United States Department of Energy (2019)
- ❑ 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)
- ❑ Peer Review Panelist; 2018 DOE Office of Electricity Energy Storage Program Peer Review, United States Department of Energy (2018)
- ❑ 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

- ❑ Co-Editor, *Energy, Sustainability and Society* (2016–Present)
- ❑ Editorial Advisory Board Member, *Renewable Energy Focus* (2016–Present).
- ❑ Editorial Board Member:
 - *International Journal of Industrial Management* (2016–Present)
 - *Journal of Modern Power Systems and Clean Energy* (2013–Present)
 - *Foundations and Trends in Energy Markets and Policy* (2013–Present)
 - *IET Renewable Power Generation* (2012–Present)
 - *Journal of Energy Markets* (2015–2019)
- ❑ Section Editor, Electricity Market Design to Accommodate Zero-Marginal-Cost Resources, *Current Sustainable/Renewable Energy Reports* (2020–Present)
- ❑ Senior Associate Editor, *IEEE Systems Journal* (2019–Present)
- ❑ Section Editor, Energy Market, *Current Sustainable/Renewable Energy Reports* (2017–Present)
- ❑ Subject Editor, Market Design for Renewable Energy Support and Integration, *IET Renewable Power Generation* (2018–Present)
- ❑ Associate Editor:
 - *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:

- *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” (2019-2020)
- *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*
- 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 Signal Processing Magazine*
- IEEE Transactions on Power Systems*
- IEEE Transactions on Sustainable Energy*
- IIE Transactions*
- IISE Transactions*
- 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 Energy Journal*
- Transportation Research Part C: Emerging Technologies*

Academic-Program Reviewing

- Scientific Committee; Chair in Electricity Economics and Digital Transition at IFP School (2019–2021)
- 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)

External Dissertation Examiner

- ❑ 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

- ❑ Horizon 3030; *European Research Council*; 2021.
- ❑ Site Visit Team: Power Optimization of Electro-thermal Systems; 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.
- ❑ Fonds de la Recherche Scientifique; (2016–Present)
- ❑ 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, INFORMS Chapters and Fora Committee; 2019–Present.
- ❑ Technical Committee Program Chair, IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2019–Present.
- ❑ 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–Present.
- ❑ 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–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.
- ❑ Past President, “Energy Systems Division,” Institute of Industrial and Systems Engineers; 2023–2024.

- ❑ 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.
- ❑ Member, Award Committee, Columbus, Ohio Chapter of IEEE Power & Energy Society; 2020–2021.
- ❑ Chair, “Power System Economics Subcommittee,” IEEE Power & Energy Society, Power System Operation, Planning, and Economics Committee; 2020–2021.
- ❑ 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.

Conference Organization

- ❑ Scientific Committee Member, *Second International Workshop on Variational Analysis and Applications for Modelling of Energy Exchange*. April-May, 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.
- ❑ Chair, *2018 INFORMS ENRE Section Best Young Researcher Award Committee*. November 4-7, 2018, Phoenix, AZ.
- ❑ 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.
- ❑ Chair, *2017 INFORMS ENRE Section Best Young Researcher Award Committee*. October 22-25, 2017, Houston, TX.
- ❑ 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,” *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.
 - ❑ Judge, *2014 INFORMS ENRE Section Best Student Paper Award*. November 9-12, 2014, San Francisco, CA.
 - ❑ 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.
 - ❑ Head Judge, *2013 INFORMS ENRE Section Best Student Paper Award*. 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
- ❑ The Ohio State University Alpha Pi Mu Student Chapter

Professional Membership

- Fellow, Asia-Pacific Artificial Intelligence Association (AAIA)
- Fellow, Institute of Electrical and Electronics Engineers (IEEE)
- 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)
- Full Member, Sigma Xi
- Member, United States Association for Energy Economics (USAEE)

GRANTS

- United States Department of Energy (PI: M. Hagenberger)
Project: automated BUilding Control with Knowledge of distributed Energy resources and Electrical Systems for Grid Offerings (BUCKEYES GO!)
Duration: 2021-2026 (\$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: 2018-2021 (\$299,203)
- The Ohio State University (PI: J. Bielicki)
Project: Engineering the Subsurface to Seasonally Store Energy While Sequestering CO₂
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)

HONORS AND
AWARDS

- ❑ 2021 Institute of Electrical and Electronics Engineers Fellow Class. For contributions to energy storage in electric power systems.
- ❑ 2020 Award for Excellence in the Teaching of Operations Research. Awarded by Operations Research Division of Institute of Industrial and Systems Engineers.
- ❑ Outstanding Engineer Award; 2019. Awarded by Institute of Electrical and Electronics Engineers Power & Energy Society Columbus, Ohio Chapter.
- ❑ Distinguished Faculty Award; 2018. Awarded by graduating undergraduate seniors of Department of Integrated Systems Engineering.
- ❑ Distinguished Faculty Award; 2015. Awarded by graduating undergraduate seniors of Department of Integrated Systems Engineering.
- ❑ 2015 College of Engineering Lumley Research Award. Awarded for research productivity over the last five years.
- ❑ The Campbell Watkins Energy Journal Best Paper; 2010. Awarded for best paper published in *The Energy Journal*, “The Value of Plug-In Hybrid Electric Vehicles as Grid Resources.”
- ❑ Best Paper Award at the *4th International Conference on Sustainable Energy and Environmental Protection*, for the paper: R. Sioshansi, V. Marano, and R. Fagiani, “Cost and Emissions Impacts of Plug-In Hybrid Vehicles (PHEVs) on the Electric Power Grid.”
- ❑ Outstanding Graduate Student Instructor Award; 2006. Awarded by faculty of Industrial Engineering and Operations Research department at University of California, Berkeley.
- ❑ Best Graduate Student Instructor Award; 2006. Awarded by undergraduate members of the Berkeley chapter of the Institute of Industrial Engineers.

GREGORY SLONE

e-mail: [REDACTED]

SUMMARY

Results-oriented professional with an engineering degree and a background in gas and electric sales, marketing, operations, and energy procurement. Skilled at managing multiple tasks in a dynamic work environment. Experienced with the relationship management of major industrial and municipal accounts, including customer fulfillment, contract negotiation, strategy and planning. Proven record of personnel development, successful organizational change and financial accountability. Leadership strengths include personnel management and development, conflict resolution, gaining consensus, and building trust throughout an organization.

EXPERIENCE

SLONE ENERGY SERVICES, LLC

2016-2021

Principal

Responsible for the ongoing profitability of independent gas marketing business, including supply acquisition and retail sales to commercial and industrial facilities served by the Orwell Natural Gas Company and the Northeast Ohio Natural Gas Corporation.

OFFICE OF THE OHIO CONSUMERS' COUNSEL

2010-2015

Senior Energy Analyst

Provide policy and technical analysis in both natural gas and electric utility filings with the Public Utilities Commission of Ohio, including Gas Cost Recovery Audits, Long Term Forecast Reports, Infrastructure Replacement Programs and Rate Cases.

AMERICAN MUNICIPAL POWER, INC., Columbus, Ohio

2001-2009

Vice President, Generation Services

2006-2009

Responsible for the ongoing daily operations of the company's electric generation facilities, including a 200 MW coal-fired plant, a 42 MW hydroelectric plant, and numerous gas-fired turbine facilities throughout Ohio.

Assistant Vice President, Energy Operations

2004-2006

Procured coal, natural gas and emission allowances for the company's coal and gas-fired generation units. Directed and oversaw all corporate power supply planning, billing activities and the company's municipal gas and electric aggregation consulting business. Managed a staff of seven employees.

General Manager of AMPO, Inc.

2002-2004

Responsible for the purchase of coal and natural gas for the company's coal and gas-fired generation units. Managed the daily operations of the company's municipal gas and electric aggregation consulting business:

- Negotiated multiple coal supply contracts and transport agreements for 200 MW power plant after bankruptcy of existing supplier, at a time when coal stock was in limited supply;
- Built relationships with plant manager and operating personnel at power plant and developed a network of providers for natural gas, coal and associated transportation.

Operations Manager of AMPO, Inc.

2001-2002

Managed the daily operations of the company's natural gas supply program serving residential and commercial customers in Ohio:

- Revamped a new business unit that was losing money into a profitable venture by changing the business structure from a high-risk supply organization to a low-risk energy consulting business;
- Reversed company's gross margin from a \$2.5 million loss into a \$300,000 profit in one year.

COLUMBIA GAS OF OHIO, INC., Columbus, Ohio

1996-2001

Director, Outside Sales

2000-2001

Directed and oversaw the business plan, all sales programs, activities, and personnel to maximize profit through the retention and sale of natural gas to new and existing residential, commercial and industrial customers in Ohio. Evaluated and approved recommendations for new business, representing more than \$20 million of capital investment per year. Managed a staff of 37 employees and an annual budget of \$6.2 million:

- Designed and staffed new sales organization focusing on profitable acquisitions of new customers and retention of existing customers and revenue, which reduced complement and budget by 30%, while achieving sales goals and maintaining high customer satisfaction levels;
- Developed and implemented an incentive pay structure based on meeting financial targets using measurable results, which helped improve financial returns on over \$20 million per year of capital investment;
- Negotiated a five-year service agreement with a \$3 million per year account that was at risk to an alternate supplier, while maintaining 95% of gross margin.

Manager, Strategic Sales

1996-1999

Managed all retention and growth opportunities for the major customer market in Ohio, representing approximately 80 billion cubic feet per year of existing natural gas distribution. Retained over \$15 million in at-risk revenue annually by implementing value-added services:

- Created and implemented incentive-based Key Account Management organization throughout Ohio, retaining over 99% of large volume customer revenues at risk to bypass to an alternate supplier;
- Designed new segment-focused sales organization adopted and implemented into the existing Wholesale/Retail Sales organization, which consistently exceeded state sales value-added goals;
- Led a focused and productive team of four Key Account Managers that received a 100% satisfaction rating from strategic customers surveyed during 1999.

EDUCATION AND PROFESSIONAL DEVELOPMENT

- **The Ohio State University, Columbus, Ohio** - **Bachelor of Science, Civil Engineering**
- Chartered Industrial Gas Consultant - Institute of Gas Technology
- Planning and Developing New Products and Markets - American Management Association
- Marketing, Sales and Account Management - Scott, Madden & Associates
- Financial Analysis - Lexington Research Partners