

KELLY ANN STEVENS

University of Central Florida
School of Public Administration
College of Community Innovation and Education
Resilient, Intelligent, and Sustainable Energy
Systems (RISES) Cluster

150F Research 1
Orlando, Florida 32816-1395
Telephone: (407) 823-2243
Email: Kelly.Stevens@ucf.edu
<https://ccie.ucf.edu/profile/kelly-stevens/>

Professional Appointments

- 2017-Present **Assistant Professor**, School of Public Administration, University of Central Florida
Resilient, Intelligent, and Sustainable Energy Systems (RISES) Cluster
- 2012-2017 **Research Associate**, Center for Policy Research, Syracuse University
Center for Environmental Policy and Administration
Maxwell School of Citizenship and Public Affairs
- 2006-2012 **Meteorologist**, Florida Department of Environmental Protection
Division of Air Resource Management, Office of Policy Analysis and Program
Management
- 2004-2006 **Teaching Assistant**, Meteorology Department, Florida State University
College of Arts and Sciences
-

Educational Background

- 2012-2017 **Ph.D.** Public Administration, Syracuse University
Maxwell School of Citizenship and Public Affairs
Fields of specialization: Environmental Policy and Management; Science and
Technology Policy
Dissertation title: The Impact of Environmental Policies and Innovation on the
Investment in and Use of Natural Gas-Fired Combined Cycle Generators in the US
Electricity Sector
Dissertation Committee: Peter Wilcoxon, David Popp, Sarah Hamersma, W. Henry
Lambright, Inês Azevedo (external)
- 2009-2012 **MPA**, Public Administration, Florida State University
Specialization: Environmental Management
- 2004-2008 **MS**, Meteorology, Florida State University
- 2000-2004 **BS**, Meteorology, Oneonta State University
Minor in Earth Science and Mathematics, *Magna cum laude*

Research

*Denotes student collaboration

Journal impact factors obtained from Journal Citation Reports

(<https://jcr.clarivate.com/JCRLandingPageAction.action>). Journal rankings obtained from Scimago Journal & Country Rankings (<https://www.scimagojr.com/>).

Research Interests: energy policy, environmental policy, air quality, climate change, renewable energy, smart grids, science and technology policy, innovation.

Peer-Reviewed Publications

6. **Stevens, K.A.**, Carroll, D. A. A Comparison of Different Carbon Taxes on Utilization of Natural Gas. *Energy and Climate Change*. (forthcoming).
5. **Stevens, K. A.** (2020) Analysis of the Advanced Turbine System Program on Innovation in Natural Gas Technology. *Energies*, 13(19), 5057. <https://doi.org/10.3390/en13195057> (Impact factor: 2.702)
4. **Stevens, K.A.** (2018). Natural Gas Combined Cycle Utilization: An Empirical Analysis of the Impact of Environmental Policies and Prices. *The Energy Journal*, 39(5), 205-229. <https://doi.org/10.5547/01956574.39.5.kste> (Impact Factor: 2.394)
3. **Stevens, K.A.**, & Ruscher, P. (2014). Large Scale Climate Oscillations and Mesoscale Surface Meteorological Variables in the Apalachicola-Chattahoochee-Flint River Basin. *Journal of Hydrology*, 517, 700-714. <https://doi.org/10.1016/j.jhydrol.2014.06.002>. (Impact Factor: 4.5)
2. Bowman, J., & **Stevens, K.A.** (2013). Public Pay Disclosure in State Government: An Ethical Analysis. *The American Review of Public Administration*, 42(4), 476-492. <https://doi.org/10.1177/0275074012445597>. (Impact Factor: 2.168)
1. **Stevens, K.A.**, DeAngelo, G., & Brice, S. (2011). Comparative study of selected greenhouse gas offset protocols. *International Journal of Climate Change Strategies and Management*, 3(2), 118-139. <https://doi.org/10.1108/17568691111128977>. (Impact Factor: 1.791)

Book Chapters

1. **Stevens, K.A.** (2017). Organizational Understanding of the U.S. Environmental Protection Agency's "Unfinished Business." In G. Magill & K. Aramesh (Eds.), *The Urgency of Climate Change: Pivotal Perspectives*. Cambridge Scholars Publishing.

Reports

5. **Stevens, K. A.**, Michaud, G., & Jenkins, D. (2020). Impact Analysis of Power Purchase Agreements (PPAs) in Florida. Solar United Neighbors. <https://www.solarunitedneighbors.org/wp-content/uploads/2020/10/Impact-Analysis-of-Power-Purchase-Agreements-in-Florida.pdf>.
4. Zavattaro, S. **Stevens, K.A.**, & Emrich, C. (2020). Meteorologists and Personal Branding: Is There a Connection? National Hazards Center, Quick Response Grant.
3. **Stevens, K.A.**, Sellnow, D., Zhihua, Q., & Hess, M. (2020). Policy and Technology for Enhancing Cybersecurity of Electric Grid and Internet of Things (IOT) Devices. UCF Downtown Project Funding Final Report.
2. **Stevens, K.A.**, & Carroll, A. D. (2019). The Impact of a Revenue Neutral Carbon Tax on Substitution of Natural Gas for Coal in the Electricity Sector. Alliance for Market Solutions. https://amsresearch.org/wp-content/uploads/2020/05/AMS_Carroll-Stevens-White-Paper_FINAL_May-2020.pdf.
1. **Stevens, K.A.**, DeAngelo, G., & Brice, S. (2010). Comparative Study of Selected Offset Protocols for Greenhouse Gas Reduction and Reporting Programs. Florida Department of Environmental Protection, Division of Air Resource Management, Office of Policy Analysis and Program Management.

Publications in National Conference Proceedings (peer-review unless otherwise stated)

2. Carroll, D. A., & **Stevens, K.A.** (2020). The Short-Term Impact on Emissions and Federal Tax Revenue of a Carbon Tax in the U.S. Electricity Sector. Proceedings of the IAS 90th Anniversary Conference.
1. **Stevens, K.A.**, & Carroll, D. A. (2020). The Impact of a Carbon Tax on Substitution of Natural Gas for Coal. Proceedings of the 112th Annual Conference on Taxation, *National Tax Journal*, 112: (Forthcoming), Ranked 54/259 in Finance; Impact Factor 0.86.

Non-Peer Reviewed Publications

2. **Stevens, K.A.**, Bryer, T. A., & Yu, H. (2020, June 15). How Democratizing Air Quality Data will Empower Citizens. *Medium, 3Streams*. <https://medium.com/3streams/democratizing-air-quality-data-in-response-to-covid-19-96fcb47c10f>.
1. Carroll, D., **Stevens, K.A.**, & Rowe, John W. (2020, May 15). Markets over regulation: Driving lower emissions generation through a carbon tax. *Utility Dive, Opinion*. <https://www.utilitydive.com/news/markets-over-regulation-driving-lower-emissions-generation-through-a-carbo/578000/>.

Under Review & Working Papers

4. **Stevens, K.A.**, Bryer, T. A., Yu, H. Air Quality Enhancement Districts: Democratizing Data to Improve Respiratory Health. *R&R at Environmental Studies and Sciences*.
 3. **Stevens, K. A.**, & Carroll, D. A. Short-Term Impact on Emissions and Federal Tax Revenue of a Carbon Tax in the U.S. Electricity Sector. *Under Review*.
 2. **Stevens, K. A.**, *Iman, S., & Davis, K. The Cost of Utility Discretion on Residential Solar Requirements.
 1. **Stevens, K.A.** Assessing the Relationship between Renewable Energy Policies and Innovation of Complementary Technology.
-

Funded Research

External Research Funding (Credit: \$435,036)

4. **Stevens, K.A.**, & Michaud, G. (2020). Impact Analysis of Power Purchase Agreements (PPAs) in Florida. Solar United Neighbors. \$10,000; PI Credit \$10,000.
3. Zavattaro, S., **Stevens, K.A.**, & Emrich, C. (2019). Questioning Public Science: Exploring Perceptions of Meteorological Aptitude and Scientists Response. National Hazards Center, Quick Response Grant, \$2,000; Co-PI Credit \$666.
2. Fu, X., Yu, H., Fan, D., **Stevens, K.A.**, & Bryer, T. (2019). CPS: Medium: A Secure, Trustworthy, and Reliable Air Quality Monitoring System for Smart and Connected Communities. National Science Foundation, 3-year grant, \$1,198,111; Co-PI Credit \$399,370.
1. **Stevens, K.A.**, & Carroll, D. (2019). The Impact of a Revenue Neutral Carbon Tax on Substitution of Natural Gas for Coal in the Electricity Sector. Alliance for Market Solutions, 1-year grant, \$50,000; PI Credit \$25,000.

Internal Research Funding (Credit: \$37,460)

6. **Stevens, K.A.**, Sellnow, D., Qu, Z., Hess, M. (2020). Policy and Technology for Enhancing Cybersecurity of Electric Grid and Internet-of-Things (IOT) Devices. University of Central Florida – Downtown Interdisciplinary Research Initiative, 6-month grant, \$7,000; PI Credit \$1,760.
5. **Stevens, K.A.** (2019). Impact of Renewable Policies on Innovation of Complementary Technology. University of Central Florida - VPR Advancement of Early Career Researchers (AEER), 1 year grant, PI Credit: \$7,500.
4. Maxwell Dissertation Fellowship. (2015-2016). PI Credit: \$23,000.

3. Maxwell PAIA Summer Research Grant. (2016, 2015, 2014, 2013). \$4,000.
2. Syracuse University Graduate Student Organization Travel Grant. (2015). \$200.
1. Center for Environmental Policy and Administration Summer Research Grant. (2014, 2013). \$1,000.

Contributions to Other Grant Work

2. “Cybersecurity risks of dynamic, two-way distributed electricity markets.” National Science Foundation. Conducting econometric modeling of high-frequency electricity demands by households, as well as an economic analysis of cybersecurity aspects of highly distributed electricity markets. (For Co-PI Peter Wilcoxon, 2017).
1. “Third-Party Evaluation of Say Yes in Buffalo.” The Say Yes to Education Foundation. Completed work using geographic information systems (GIS) for data analysis. (For PI Robert Bifulco, 2015-2016.).

Presentations

Conferences

25. **Stevens, K.A.**, Michaud, G., & Jenkins, D. (2020, October 15). How Solar Power Purchase Agreements will Benefit Florida. *2020 National Solar Conference*. Virtual conference. <https://www.solarcongress.org/>. Presentation available at <https://www.youtube.com/watch?v=dy0kAIPg96E>.
24. Carroll, D. A., & **Stevens, K.A.** (2020, June 25). The Short-Term Impact on Carbon Emissions and Federal Tax Revenue of a Carbon Tax in the Electricity Sector [Conference workshop]. *International Institute of Administrative Sciences 2020 Conference: Public Governance for Climate Action*, Brussels, Belgium. <https://www.conftool.org/iias-conference2020/sessions.php>.
23. **Stevens, K. A.**, *Rouhollahi, A. (May, 2020). Renewable Policies and Innovation of Complementary Fossil Technology. *American Society for Public Administration*. Virtual conference.
22. **Stevens, K.A.**, Carroll, D. A. (April 2020). The Impact of a Revenue Neutral Carbon Tax on Substitution of Natural Gas for Coal in the Electricity Sector. *American Society for Public Administration*. Anaheim, CA. (Conference canceled)
21. **Stevens, K. A.**, Sellnow, D., Qu, Z., Hess, M. (March, 2020). Policy and Communication for Enhancing Smart Grid Cybersecurity. *Public Administration Research Conference*. Orlando, FL. (Conference canceled)

20. Carroll, D., & **Stevens, K. A.** (2019). The Impact of a Carbon Tax on Substitution of Natural Gas for Coal. *National Tax Association 112th Annual Conference*. Tampa, FL.
19. **Stevens, K.A.**, & Carroll, D. A. (2019). The Impact of a Carbon Tax on Substitution of Natural Gas for Coal. *United States Association of Energy Economics*. Denver, CO.
18. Carroll, D., & **Stevens, K.A.** (2019). The Impact of a Revenue Neutral Carbon Tax on Substitution of Natural Gas for Coal in the Electricity Sector. *Association for Budgeting and Financial Management*. Washington, DC.
17. **Stevens, K.A.**, & *Rouhollahi, A. (2019). Assessing the Relationship Between Renewable Energy Policies and Innovation of Complementary Technology. *Prairie Political Science Association*. Banff, CAN.
16. **Stevens, K.A.**, & Carroll, D. A. (2019). The Impact of a Carbon Tax on Substitution of Natural Gas for Coal. *Association for Environmental Studies and Sciences*. Orlando, FL.
15. **Stevens, K.A.**, *Iman, S., *Bissessar, R., & Reedy, R. (2019). The Impact of Utility Discretion on Residential Solar Requirements. *International Association for Energy Economics*. Montreal, CAN.
14. **Stevens, K.A.**, *Iman, S., *Bissessar, R. & Reedy, R. (2019). The Impact of Utility Discretion on Residential Solar Requirements. *American Society for Public Administration*. Washington, DC.
13. **Stevens, K.A.**, *Iman, S., *Bissessar, R. & Reedy, R. (2019). The Impact of Utility Discretion on Residential Solar Requirements. *Public Administration Research Conference*. Orlando, FL.
12. **Stevens, K.A.**, *Bissessar, R. & Reedy, R. (2018). Barriers to Entry: Costs of Redundant Residential Solar Requirements. *Association of Environmental Studies and Sciences*. Washington, DC.
11. **Stevens, K.A.** (2017). Natural Gas Combined Cycle Innovations in the US: The Impact of the Advanced Turbine System Program. *United States Association of Energy Economics*. Houston, TX.
10. **Stevens, K.A.** (2016). Feasibility of Natural Gas Combined Cycle Utilization Targets: Evidence from Policy and Prices. *United States Association of Energy Economics*. Tulsa, OK.
9. **Stevens, K.A.** (2016). Utilization of Natural Gas Capacity in Response to U.S. EPA's Clean Power Plan. *Association for Public Policy Analysis and Management Regional Student Conference*. Washington, DC.
8. **Stevens, K.A.** (2015). Utilization of Natural Gas Capacity in Response to U.S. EPA's Clean Power Plan. *Association for Public Policy Analysis and Management*. Miami, FL.

7. **Stevens, K.A.** (2015). Understanding the 2001-2003 Boom in Natural Gas Capacity in the U.S. Electricity Sector. *United States Association of Energy Economics*. Pittsburgh, PA.
6. **Stevens, K.A.** (2015). Organizational Understanding of the U.S. EPA's "Unfinished Business." *Duquesne University Presidential Conference on the Integrity of Creation: Climate Change*. Pittsburgh, PA.
5. **Stevens, K.A.** (2015). Understanding the 2001-2003 Boom in Natural Gas Capacity in the U.S. Electricity Sector. *Association of Environmental and Resource Economists 4th Annual Summer Conference*. San Diego, CA.
4. **Stevens, K.A.** (2015). Utilization of Natural Gas Capacity in Response to the U.S. Clean Power Plan. *Seventh International Conference on Climate: Impacts and Responses*. Vancouver, BC.
3. **Stevens, K. A.,** DeAngelo, G., & Brice, S (2010). Offset Protocols and Florida Cap and Trade Programs. 14th Annual Power Generation Conference. Orlando, FL.
2. **Stevens, K. A.,** & Ruscher, P. (2008). Drought and its Relationship to Long-term Climatological Indicators in the Apalachicola-Chattahoochee-Flint River Basin. *University of Florida Water Institute Symposium*. Gainesville, FL.
1. **Stevens, K. A.,** & Ruscher, P. (2008). Drought and its Relationship to Long-term Climatological Indicators in the Apalachicola-Chattahoochee-Flint River Basin. *88th Meeting of the American Meteorological Society, Conference on Hydrology*. New Orleans, LA.

Invited Talks

11. "How Solar Power Purchase Agreements will Benefit Florida." Pre-Launch Event for Solar United Neighbors. October 7, 2020. With Gilbert Michaud and David Jenkins.
10. "The Impact of a Revenue Neutral Carbon Tax on Substitution of Natural Gas for Coal in the Electricity Sector." Alliance for Market Solutions Board Meeting. June 24, 2020. With Deborah A. Carroll.
9. "Environmental Policy Alternatives." PAD6035: Public Administration in the Policy Process. University of Central Florida, Orlando, FL. October, 2019.
8. "Clean Energy in the US: A Focus on Cleaner Policies and Technology." GEEOlogue, University of Central Florida, Orlando, FL. September, 2019.
7. "On the Security of Low-Cost Air Quality Monitoring Networks." US EPA Air Sensor Brownbag Webinar. June, 2019. With Xinwen Fu and Haofei Yu.

6. "Air Quality Modeling for FDEP." ENV6106: Air Pollution Modeling. University of Central Florida, Orlando, FL. March, 2018 & 2019.
 5. "The Intersection of Energy Policy and Technology." EEL3290: Global Energy Issues. University of Central Florida, Orlando, FL. February, 2018 & 2019.
 4. "Natural Gas Combined Cycle Innovations in the US: The Impact of the Advanced Turbine System Program." Center for Climate and Energy Decision Making Student Seminar. Carnegie Mellon University, Pittsburgh, PA. December, 2016.
 3. "Utilization of Natural Gas Capacity in Response to U.S. Clean Power Plan." Center for Climate and Energy Decision Making Student Seminar. Carnegie Mellon University, Pittsburgh, PA. April, 2016.
 2. "State Environmental Agencies and Policy." POSC 202: State and Local Governments. Duquesne University, Pittsburgh, PA. March, 2015.
 1. "Case Study on Florida DEP Greenhouse Gas Cap-and-Trade Rulemaking." PAI 730: Climate Change: Science, Policy and Perspectives. Syracuse University, Syracuse, NY. October, 2013.
-

Teaching

*Denotes new course
+Denotes new modality

University of Central Florida School of Public Administration

- PAD4822: Intergovernmental Administration
 - Face-to-Face: Fall 2017,* Spring 2018, Spring 2019
 - Online: Fall 2019+, Summer C 2020 (Quality designation), Fall 2020
- PAD6616: Economic Principles for Public Policy and Management
 - Face-to-Face: Fall 2017*
 - Online: Spring 2019+, Spring 2020 (Quality designation)
- PAD4351: Issues in Environmental Program Management
 - Mixed-Mode: Fall 2019+
 - Online: Fall 2020+
- PAD6700: Research Methods
 - Online: Spring 2018

Syracuse University Maxwell School of Citizenship and Public Affairs

- Geographic Information Systems for Social Science: Face-to-face, mini-course*

Florida State University Meteorology Department

- **MET1010L:** Introduction to Meteorology Lab
 - Face-to-face: Fall 2004, Spring 2005, Fall 2005, Spring 2006

Teaching Enhancement Activities

- 2020, Faculty Center for Teaching and Learning: “The COVID Classroom – Teaching and Learning During a Pandemic,” UCF, September 18, 2020.
- 2020, Faculty Center for Teaching and Learning: “Academic Dishonesty in Online Environments,” UCF, June 12, 2020.
- 2019, Faculty Center for Teaching and Learning: “Case-Based and Problem-Based Learning Workshop,” UCF, November, 8, 2019.
- 2019, Faculty Center for Teaching and Learning: “Webcourses Gradebook and Improving Collaboration Workshop,” UCF, July 12, 2019.
- 2019, National Association of Geoscience Teachers in collaboration with the Association for Environmental Studies and Sciences: “Energy, Earth and Environmental Education: A Community-Building Workshop,” Orlando, June 26, 2019.
- 2018, Faculty Center for Teaching and Learning: Student Observation Program, UCF, Spring 2018.
- 2017, Faculty Center for Teaching and Learning: “IDL6543: Interactive Distributed Learning,” UCF, Fall 2017.

Service

Academic Service

Reviewer for: *Resource and Energy Economics, Public Administration Review, Environmental Research Letters, Public Personnel Management, International Journal of Climatology, Journal of Urban Affairs*

University Committees:

- Sustainable Development Masters Committee (2020-present)
- Energy Council (2019-present)
- Environmental Studies Curriculum Committee (2019-present)
- Energy Blue Ribbon Panel (2018)

School Committees:

- Director Search Committee (2019-2020)
- Student Engagement (2019-present)
- Undergraduate Curriculum Council (2020-present)
- PhD Development (2019-present)
- TOP Search Committee (2019)
- Public Administration Advisory Board (2018-present)
- Nomination and Selection Committee for Exemplary Public Service (2019)

Cluster Committees:

- RISES Certificate Development Committee (2018-2019)
- RISES Search Committee (2017-2018)

Student Advising:

- UCF Student Chapter of American Public Works Association (faculty advisor, 2019-present)
- US Department of Energy Solar District Cup (2019)
- UCF Interdisciplinary Studies Capstone: Sheila Newman (2020)

Other:

- Center for Success of Women Faculty Mentoring and Networking Community, Faculty Excellence, University of Central Florida, Orlando, FL, January - April 2020.

Professional Affiliations:

- UCF's Center for Global Economic and Environmental Opportunity Fellow
- International Association for Energy Economics
- United States Association for Energy Economics
- American Society for Public Administration
- Association of Public Policy Analysis and Management
- Association for Environmental Studies and Sciences

Awards/Distinctions

Academic

- Information Technology and Innovation Foundation Clean Energy Scholar, 2019
- Pi Alpha Alpha Global Honor Society, 2019
- Syracuse University All-University Dissertation Award, 2018
- USAEE Student Registration Fee Scholarship, 2016, 2015
- Graduate Scholar Award for Climate Change Impacts and Responses Conference, 2015
- Phi Eta Sigma National Honor Society
- Chi Alpha Sigma National College Athlete Honor Society
- Omicron Delta Kappa National Leadership Honor Society
- Chi Epsilon Pi National Honor Society in Meteorology
- National Soccer Coaches Association of America Scholar All-East 2nd Team, 2003
- Oneonta State Scholar Athlete of the Year, 2003
- Academic All-District 1 First Team, 2003
- Verizon Academic All-District 1 Third Team, 2002

Other

- Oneonta State Athletic Hall of Fame, 2014
- Oneonta State Athlete of the Year, 2004

- Women's DIII Indoor Track All-American, 2004
- Women's DIII Soccer National Champion, 2003
- Oneonta State Student-Athlete of the Year, 2003