

Curriculum Vitae for Professor Michael E. Webber

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Contents

Academic Positions, Professional Experience and Education	2
Biographical Summary	3
Peer-Reviewed Journal Articles	4
Peer-Reviewed Conference Proceedings	17
Books, Chapters, Reviews and Forewords	27
Feature Articles, Op-Eds, Columns and Technical Commentary	30
Select Technical Reports and White Papers	44
Patents	47
Entrepreneurship Experience	48
Global Experience	49
Advisory, Consulting and Industrial Collaborations	50
Service to the Profession	51
Honors, Awards, and Fellowships	52
Government Testimony and Briefings	55
Teaching	58
Student and Post-Doctoral Supervision	62
Sponsors: September 2007–December 2024	76
University Committee Assignments	78

Professional Experience and Academic Positions:

- The University of Texas at Austin, 2006–present
 - *Sid Richardson Chair*, LBJ School of Public Affairs, 2024–present
 - *Cockrell Family Chair #16*, Cockrell School of Engineering, 2025–present
 - * John J. McKetta Centennial Energy Chair in Engineering, 2023–2025
 - * Josey Centennial Professor in Energy Resources, UT Austin, 2016–2023
 - * Josey Centennial Fellow in Energy Resources, UT Austin, 2012–2016
 - *Professor*, Public Affairs, 2024–present
 - *Professor*, Mechanical Engineering, 2016–present
 - *Engineering Co-Director*, Kay Bailey Hutchison Energy Center, 2023–present
 - *Director*, Energy Institute, 2018
 - *Deputy Director*, Energy Institute, 2013–2018
 - *Co-Director*, Clean Energy Incubator, 2009–2018
 - *Assoc. Director*, Center for International Energy & Environmental Policy, 2006–2012
 - *Associate Professor*, Mechanical Engineering, 2012–2016
 - *Assistant Professor*, Mechanical Engineering, 2007–2012
 - *Research Associate*, Mechanical Engineering, 2006–2007
- *Chief Technology Officer*, Energy Impact Partners, New York, NY, USA, 2021–2024
- *Chief Science & Technology Officer*, ENGIE Group, Paris, France, 2018–2021
- *Associate Engineer*, RAND Corporation, Santa Monica, CA, USA 2004–2006
- *Senior Scientist*, Pranalytica, Inc., Santa Monica, CA, USA, 2000–2004
- *Graduate Research Assistant*, Mechanical Engineering, Stanford University, 1995–2000
- *Undergraduate Research Asst.*, Applied Research Laboratories, UT Austin, 1994 –1995
- *Undergraduate Research Asst.*, Nuclear Engineering Teaching Laboratory, UT Austin, 1994
- *Summer Undergraduate Research Fellow*, NASA Ames Research Center, 1992 & 1993

Education:

- Ph.D., Mechanical Engineering (Minor, Electrical Engineering), 2001, Stanford University (Advisor: Professor Ron K. Hanson, NAE)
- M.S., Mechanical Engineering, 1996, Stanford University
- B.S. with High Honors, Aerospace Engineering, 1995, The University of Texas at Austin
- B.A. with High Honors & Special Honors, Plan II Liberal Arts, 1995, The University of Texas at Austin

Citizenship: USA

Biographical Summary

Professor Michael E. Webber is the *Sid Richardson Chair* in the LBJ School of Public Affairs and the *Cockrell Family Chair #16* in the department of mechanical engineering at the University of Texas at Austin. In addition to his role as a faculty member, from August 2021 to September 2024, Webber served as CTO of Energy Impact Partners, a \$5 billion venture fund focused on investments in cleantech and climate tech startups with the potential for deep decarbonization at speed and scale. Furthermore, from September 2018 to August 2021, Webber was based in Paris, France where he served as the Chief Science and Technology Officer at ENGIE, one of the world's largest energy companies.

Webber's works spans research and education at the convergence of engineering, policy, and commercialization on topics related to innovation, energy, and the environment. His group's research tackles complex energy systems analysis with a deep record of expertise on the following: 1) grid reliability in the face of electrification and the rise of variable sources in a warming world, 2) the hydrogen sector and how it couples to other sectors such as the grid, transportation, and industry, 3) the built environment and 4) the food-energy-water-waste nexus. Among many executive advisory roles, he serves on the board of GTI Energy (an industry consortium formerly known as the Gas Technology Institute) and the Scientific Advisory Council for ENGIE in Paris, France.

Webber has authored or co-authored more than 600 publications, including five full-length general interest books, and holds 6 patents. His essays have been published in the *The New York Times*, *The Wall Street Journal*, *Washington Post*, *Scientific American* and more. Webber's scholarly articles have appeared in top journals such as *Science*, *Nature* and *Environmental Science and Technology*.

His book Power Trip: the Story of Energy was published in 2019 by Basic Books with an award-winning 12-part companion series spread out over two seasons that aired on PBS, Amazon Prime, AppleTV, and in-flight entertainment on American Airlines. The series had more than 10,000 broadcasts in the United States and has been distributed in dozens of countries, ultimately reaching more than 10 million viewers. His book Thirst for Power: Energy, Water and Human Survival was published in 2016 by Yale Press. An accompanying documentary *Thirst for Power* was released nationally on PBS starting April 1, 2025. Seasons 1 and 2 of *Power Trip* along with his documentary *Thirst for Power* and PBS television special *Energy at the Movies* have been recognized with six Telly Awards (one gold, four silver, and one bronze) for excellence in television.

In 2024 Webber was selected for the *Energy Thought Leader: Higher Education* award by the American Energy Society and a three-year term as a *Fulbright Technical Specialist* by the U.S. State Department. He was selected in 2014 as a Fellow of ASME (the American Society of Mechanical Engineers), in 2018 as a member of the 4th class of the Presidential Leadership Scholars, which is a leadership training program organized by Presidents George W. Bush and William J. Clinton, and in 2022 for the Rockefeller Foundation's prestigious writer's residency in Bellagio, Italy. He was honored as an American Fellow of the German Marshall Fund and on four separate occasions by the University of Texas for exceptional teaching.

Webber holds a B.S. and B.A. from UT Austin, and M.S. and Ph.D. in mechanical engineering (and a PhD minor in electrical engineering) from Stanford University.

Peer-Reviewed Journal Articles

155. S.C. Reynolds, K. Horsak, Y.R. Glazer, and **M.E. Webber**, “The bar exam: a methodology for unpacking the “other” bar included in the graphs of openLCA’s results using the ecoinvent database,” *Cleaner Environmental Systems* (In Review).
154. M. Skiles, D. A. Kassel, C.W. King, V. Koripally, B. Pecora, Y.R. Glazer, J. Shih, J.D. Rhodes and **M.E. Webber**, “Effect of Building Sector Retrofits on Natural Gas Demand and Electricity Supply During Winter Weather Emergencies,” *Results in Engineering*, Volume 29, March 2026, 108509. <https://doi.org/10.1016/j.rineng.2025.108509>
153. D. A. Kassel, J.D. Rhodes and **M.E. Webber**, “A Method for Assessing Economic, Environmental, and Reliability Tradeoffs of Connecting the Texas Grid to the Eastern and Western Grids,” *Applied Energy*, Volume 404, 1 February 2026, 127015. <https://doi.org/10.1016/j.apenergy.2025.127015>
152. B. Pecora, J.D. Rhodes and **M.E. Webber**, “Quantifying the Impacts of Weather Year Selection on Power Sector Capacity Expansion Models,” *Energy* **340**, 8 November 2025, 138979. <https://doi.org/10.1016/j.energy.2025.138979>
151. Jan Mertens, Christian Breyer, Ronnie Belmans, Corinne Gendron, Patrice Geoffron, Carolyn Fischer, Elodie Du Fornel, Olivier Ledent, Richard Lester, Kimberly A. Nicholas, Laura Megrelis, Paulo Emilio Valadão de Miranda, Celine Paton, Alice Prudhomme, Peter Verwee, Olivier Sala, **M.E. Webber**, and Koenraad Debackere, “How Energy and Chemistry Converge for a Fossil-Free Future” *iScience* **28**, 113787, November 21, 2025. <https://doi.org/10.1016/j.isci.2025.113787>
150. A. Nasta, D. Wissmiller, C. Moore, E.G. Goita, E.A. Beagle, and **M.E. Webber**, “Estimating the Climate Impacts of Hydrogen Emissions in a Net-Zero U.S. Economy,” *Progress in Energy* **7** 4 045001 (24 July 2025) <https://doi.org/10.1088/2516-1083/ade7ec>.
149. M. Skiles, J. Shih, J.D. Rhodes and **M.E. Webber**, “Assessing the Potential for Building Sector Retrofits to Mitigate ERCOT Electricity Shortfalls During Winter Storm Uri,” *Energy and Buildings* **344** (2025) 115964. <https://doi.org/10.1016/j.enbuild.2025.115964>
148. E. Wieser, K. Clarno, D. Haas, and **M.E. Webber**, “The Economics of Small Modular Reactors at Coal Sites: A Program-level Analysis Within the State of Texas,” *Energy Policy* **202**, July 2025, 114572. <https://doi.org/10.1016/j.enpol.2025.114572>
147. E.G. Goita, E.A. Beagle, A.N. Nasta, D.L. Wissmiller, A. Ravikumar and **M.E. Webber**, “Effect of Hydrogen Leakage on the Life Cycle Climate Impacts of Hydrogen Supply Chains,” *Communications Earth & Environment* **6**, 160 (2025). Published: 28 February 2025. <https://doi.org/10.1038/s43247-025-02141-3>
146. Jan Mertens, Christian Breyer, Ronnie Belmans, Corinne Gendron, Patrice Geoffron, Carolyn Fischer, Elodie Du Fornel, Richard Lester, Kimberly A. Nicholas, Paulo Emilio Valadão de Miranda, Sarah Palhol, Peter Verwee, Olivier Sala, **M.E. Webber**, and Koenraad Debackere, “Evaluating Carbon Removal Technologies: Integrating Technical Potential with Environmental, Social, and Governance Criteria and Sequestration Permanence” *iScience* **27**, 111418, December 20, 2024. <https://doi.org/10.1016/j.isci.2024.111418>

145. D. A. Kassel, J.D. Rhodes, and **M.E. Webber**, “A Method To Analyze The Costs And Emissions Tradeoffs Of Connecting ERCOT to WECC,” *Applied Energy* 378 (2025) 124732. <https://doi.org/10.1016/j.apenergy.2024.124732>
144. J. Gawlick, E.A. Beagle, **M.E. Webber** and T. Hamacher, “Assessment of a coupled electricity and hydrogen sector in the Texas energy system in 2050,” *International Journal of Hydrogen Energy* Volume 91, 19 November 2024, Pages 787–799. <https://doi.org/10.1016/j.ijhydene.2024.09.268>
143. E. Bilal, Y.R. Glazer, D.M. Sassaman, C.C. Seepersad and **M.E. Webber**, “Circularity: Understanding the Environmental Tradeoffs of Additive Manufacturing with Waste Plastics,” *Recycling*, 28 August 2024, 9(5), 72. <https://doi.org/10.3390/recycling9050072>
142. N.D. Laws, **M.E. Webber** and D. Chen, “Valuing Distributed Energy Resources for Non-Wires Alternatives,” *Electric Power Systems Research*, 234 (8 June 2024) 110521. <https://doi.org/10.1016/j.epsr.2024.110521>
141. Jan Mertens, Jo Dewulf, Christian Breyer, Ronnie Belmans, Corinne Gendron, Patrice Geoffron, Luc Goossens, Carolyn Fischer, Elodie Du Fornel, Katharine Hayhoe, Katsu Hirose, Elodie Le Cadre-Loret, Richard Lester, Fanny Maigné, Habibou Maitournam, Paulo Emilio Valadão de Miranda, Peter Verwee, Olivier Sala, **M.E. Webber**, Koenraad Debackere, “From emissions to resources: mitigating the critical raw material supply chain vulnerability of renewable energy technologies,” *Mineral Economics*, 20 February 2024. <https://doi.org/10.1007/s13563-024-00425-2>
140. H. Daigle, J.D. Rhodes, A. Pyrcz, and **M.E. Webber** “Ensuring reliability: What is the optimal time for power plant maintenance in Texas as the climate changes?,” *The Electricity Journal*, Vol. 37, Issue 1, January–February 2024. <https://doi.org/10.1016/j.tej.2023.107365>
139. E.A. Beagle, M. Lewis, B. Pecora, J.D. Rhodes, **M.E. Webber**, and R.E. Hebner, “Model to Inform the Expansion of Hydrogen Distribution Infrastructure,” *International Journal of Hydrogen Energy*, Volume 49, Part D, 2 January 2024. <https://doi.org/10.1016/j.ijhydene.2023.07.017>
138. **M.E. Webber** and Y.R. Glazer, “Solid waste, a lever for decarbonization,” *Science*, 17 November 2023, VOL 382, Issue 6672. <https://doi.org/10.1126/Science.adl0557>.
137. M. Skiles, J.D. Rhodes, and **M.E. Webber**, “Perspectives on peak demand: How is ERCOT peak electric load evolving in the context of changing weather and heating electrification?,” *The Electricity Journal*, Volume 36, Issues 2–3, March–April 2023, 107254. <https://doi.org/10.1016/j.tej.2023.107254>
136. Jan Mertens, Ronnie Belmans, Jim Gripekoven, André Bardow, Christian Breyer, Angela Dibenedetto, Suren Erkman, Grégoire Léonard, Ana S. Reis-Machado, Sylvain Nizou, Deepak Pant, Célia J. Sapart, Peter Styring, Jaap Vente, **M.E. Webber**, “Carbon Capture and Utilisation: more than hiding CO₂ for some time,” *JOULE* 7 March 15, 2023. <https://doi.org/10.1016/j.joule.2023.01.005>

135. E.A. Beagle, J.D. Rhodes, and **M.E. Webber**, “Economic and Environmental Impacts of Renewable Energy and Energy Storage in Texas,” *Oil, Gas & Energy Resources Law*, Volume 47, Number 1, January 2023.
134. S. Castellanos, J. Potts, H. Tiedmann, S. Alverson, Y.R. Glazer, A. Robison, S. Russo, D. Harmon, B. Ken-Opurum, M. Weisz, F. Acuna, K. Stephens, K. Faust, and **M.E. Webber**, “A Synthesis and Review of Exacerbated Inequities from the February 2021 Winter Storm (Uri) in Texas and the Risks Moving Forward,” *Progress in Energy* 5 (2023) 012003. <https://doi.org/10.1088/2516-1083/aca9b4>
133. A. Ravikumar, M. Bazilian and **M.E. Webber**, “The US role in securing the European Union’s near-term natural gas supply,” *Nature Energy*, 7, pages 465–467 (2022). <https://doi.org/10.1038/s41560-022-01054-1s>
132. Y.R. Glazer, D.M. Tremaine, J.L. Banner, M.A. Cook, R.E. Mace, J.Nielsen-Gammon, E. Grubert, K. Kramer, A.M.K. Stoner, B.M. Wyatt, A. Mayer, T. Beach, R. Correll, and **M.E. Webber**, “Winter Storm Uri: A test of Texas’ water infrastructure and water resource resilience to extreme winter weather events,” *Journal of Extreme Events*, 2150022, Published December 31, 2021. <https://doi.org/10.1142/S2345737621500226>
131. I.M. Gee, K.M. Faust, and **M.E. Webber**, “A framework for determining energy use in rural food delivery services: capturing system interdependencies through an agent-based discrete-event approach,” *Environmental Research: Infrastructure and Sustainability* (2021). <https://doi.org/10.1088/2634-4505/ac2b10>
130. S.C. Johnson, D. Papageorgiou, M.R. Harper, J.D. Rhodes, K. Hanson, and **M.E. Webber**, “The economic and reliability impacts of grid-scale storage in a high penetration renewable energy system,” *Advances in Applied Energy*, 3 (2021) 100052. <https://doi.org/10.1016/j.adapen.2021.100052>
129. P.R. White, J.D. Rhodes, E.J.H. Wilson, and **M.E. Webber**, “Quantifying the impact of residential space heating electrification on the Texas electric grid,” *Applied Energy*, Volume 298, 15 September 2021, 117113. <https://doi.org/10.1016/j.apenergy.2021.117113>
128. J.W. Busby, K. Baker, M.D. Bazilian, A.Q. Gilbert, E.A. Grubert, V. Rai , J.D. Rhodes, S. Shidore, C.A. Smith, and **M.E. Webber** “Cascading Risks: Understanding the 2021 Winter Blackout in Texas,” *Energy Research & Social Science*, Volume 77, July 2021, 102106. <https://doi.org/10.1016/j.erss.2021.102106>
127. K Ramirez-Meyers, W. N. Mann, T.A. Deetjen, S.C. Johnson, J.D. Rhodes, and **M.E. Webber**, “How different power plant types contribute to electric grid reliability, resilience, and vulnerability: a comparative analytical framework,” *Progress in Energy*, 3 033001 (2021). <https://doi.org/10.1088/2516-1083/abf636>
126. A. Bandyopadhyay, B.D. Leibowicz, and **M.E. Webber**, “Solar panels and smart thermostats: The power duo of the residential sector?,” *Applied Energy*, Volume 290 (2021). <https://doi.org/10.1016/j.apenergy.2021.116747>

125. I.M. Gee, B. Heard, **M.E. Webber**, and S. Miller, “The Future of Food: Environmental Lessons from E-Commerce,” *Environmental Science and Technology* (2020).
<https://dx.doi.org/10.1021/acs.est.0c01731>
124. J. Mertens, R. Belmans and **M.E. Webber**, “Why the Carbon-Neutral Energy Transition Will Imply the Use of Lots of Carbon,” *Journal of Carbon Research*, 2020, 6, 39.
<https://doi.org/10.3390/c6020039>
123. J. Mertens, H. Lepaumier, P. Rogiers, D. Desagher, L. Goossens, A. Duterque, E. Le Cadre, M. Zarea, J. Blondeau, and **M.E. Webber**, “Fine and ultrafine particle number and size measurements from industrial combustion processes: Primary emissions field data,” *Atmospheric Pollution Research* 11 (2020) 803–814. <https://doi.org/10.1016/j.apr.2020.01.008>
122. A. Bandyopadhyay, B.D. Leibowicz, E.A. Beagle and **M.E. Webber**, “As one falls, another rises? Residential peak load reduction through electricity rate structures,” *Sustainable Cities and Society*, Volume 60, September 2020, 102191. <https://doi.org/10.1016/j.scs.2020.102191>
121. S.C. Johnson, J.D. Rhodes, and **M.E. Webber**, “Understanding the impact of non-synchronous wind and solar generation on grid stability and identifying mitigation pathways,” *Applied Energy*, Volume 262, 15 March 2020, 114492. <https://doi.org/10.1016/j.apenergy.2020.114492>
120. B. Berhanu, K.M. Boisvert, and **M.E. Webber**, “Leveraging disparate parcel-level data to improve classification and analysis of urban non-residential water demand,” *Journal of Water Resources Planning and Management*, Volume 146 Issue 1, January 2020.
[https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0001132](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001132)
119. I.M. Gee, F.T. Davidson, B.L. Speetles, and **M.E. Webber**, “Deliver Me from food waste: Model framework for comparing the energy use of meal-kit delivery and groceries,” *Journal of Cleaner Production* **236** (2019) 117587. <https://doi.org/10.1016/j.jclepro.2019.07.062>
118. S.C. Johnson, D.J. Papageorgiou, D.S. Mallapragada, T.A. Deetjen, J.D. Rhodes, and **M.E. Webber**, “Evaluating rotational inertia as a component of grid reliability with high penetrations of variable renewable energy,” *Energy*, 180 (2019) 258—271.
<https://doi.org/10.1016/j.energy.2019.04.216>
117. C.I. Birney, M.C. Jones, and **M.E. Webber**, “A Spatially Resolved Thermodynamic Assessment of Geothermal Powered Multi-Effect Brackish Water Distillation in Texas,” *Resources* **2019**, 8, 65. <https://dx.doi.org/10.3390/resources8020065>
116. A. Chapman, K. Itaoka, K. Hirose, F.T. Davidson, K. Nagasawa, A.C. Lloyd, **M.E. Webber**, Z. Kurban, S. Managi, T. Tamaki, M.C. Lewis, R.E. Hebner, Y. Fujii, “A Review of Four Case Studies Assessing the Potential for Hydrogen Penetration of the Future Energy System,” *International Journal of Hydrogen Energy* (2019). <https://doi.org/10.1016/j.ijhydene.2019.01.168>
115. S. Aminfarid, F.T. Davidson, and **M.E. Webber**, “Multi-layered Spatial Methodology for Assessing the Technical and Economic Viability of Using Renewable Energy to Power Brackish Groundwater Desalination,” *Desalination* 450 (2019) pp. 12–20.
<https://doi.org/10.1016/j.desal.2018.10.014>

114. K. Nagasawa, F.T. Davidson, A.C. Lloyd, and **M.E. Webber**, "Impacts of renewable hydrogen production from wind energy in electricity markets on potential hydrogen demand for light-duty vehicles," *Applied Energy* Volume 235, 1 February 2019, Pages 1001-1016. <https://doi.org/10.1016/j.apenergy.2018.10.067>
113. K. Nagasawa, J.D. Rhodes, and **M.E. Webber**, "Assessment of primary energy consumption, carbon dioxide emissions, and peak electric load for a residential fuel cell using empirical natural gas and electricity use profiles," *Energy and Buildings* 178 (2018) 242–253. <https://doi.org/10.1016/j.enbuild.2018.07.057>
112. H.S. Rose, C.R. Upshaw, and **M.E. Webber**, "Evaluating Energy and Cost Requirements for Different Configurations of Off-Grid Rainwater Harvesting Systems," *Water* **2018**, 10, 1024. <https://doi.org/10.3390/w10081024>
111. N.S. Alhajeri, F.M. Al-Fadhli, A.Z. Aly, A.S. Reimers, and **M.E. Webber**, "Electric Power System Profile in Kuwait: Electricity and Water Generation, Fuel Consumption, and Cost Estimation," *ACS Sustainable Chemistry and Engineering*, 2018. <https://doi:10.1021/acssuschemeng.8b01672>
110. T.A. Deetjen, J.P. Conger, B.D. Leibowicz, and **M.E. Webber**, "Review of Climate Action Plans in 29 Major U.S. Cities: Comparing Current Policies to Research Recommendations," *Sustainable Cities and Society* Volume 41, August 2018, Pages 711–727. <https://doi.org/10.1016/j.scs.2018.06.023>
109. J.S. Vitter and **M.E. Webber**, "Water Event Disaggregation Using Sub-metered Water and Coincident Electricity Data," *Water* **10**, 714, 31 May 2018. <https://doi.org/10.3390/w10060714>
108. A.S. Reimers and **M.E. Webber**, "Systems-Level Thermodynamic and Economic Analysis of a Seawater Reverse Osmosis Desalination Plant Integrated with a Combined Cycle Power Plant," *Texas Water Journal* Volume 9, Number 1, 2018.
107. J.S. Vitter, B. Berhanu, T.A. Deetjen, B.D. Leibowicz, and **M.E. Webber**, "Optimal sizing and dispatch for a community-scale potable water recycling facility," *Sustainable Cities and Society*, vol. 39, May 2018, pp. 225–240. <https://doi.org/10.1016/j.scs.2018.02.023>
106. R.L. Fares and **M.E. Webber**, "What are the tradeoffs between battery energy storage cycle life and calendar life in the energy arbitrage application?", *Journal of Energy Storage* **16** pp. 37–45 (2018).
105. T.A. Deetjen, H. Martin, J.D. Rhodes, and **M.E. Webber**, "Modeling the optimal mix and location of wind and solar with transmission and carbon pricing considerations," *Renewable Energy* **120** pp. 35–50 (2018).
104. T.A. Deetjen, A.S. Reimers, and **M.E. Webber**, "Can storage reduce electricity consumption? A general equation for the grid-wide efficiency impacts of using cooling thermal energy storage for load shifting," *Environmental Research Letters* 2018 **13** <https://doi.org/10.1088/1748-9326/aa9f06>.

103. T.A. Deetjen, J.S. Vitter, A.S. Reimers, and **M.E. Webber**, “Optimal dispatch and equipment sizing of a residential central utility plant for improving rooftop solar integration,” *Energy* **147** (2018) pp. 1044–1059.
102. E. Mocanu, D.C. Mocanu, P.H. Nguyen, A. Liotta, **M.E. Webber**, M. Gibescu, and J.G. Slootweg, “On-line Building Energy Optimization Using Deep Reinforcement Learning,” *IEEE Transactions (In Press)*.
101. J.S. Vitter and **M.E. Webber**, “A non-intrusive approach for classifying residential water events using coincident electricity data,” *Journal of Environmental Modeling & Software* **100**, pp. 302–313 (2018).
100. Y.R. Glazer, F.T. Davidson, J.J. Lee, and **M.E. Webber**, “An Inventory and Engineering Assessment of Flared Gas and Liquid Waste Streams From Hydraulic Fracturing in the USA,” *Current Sustainable/Renewable Energy Reports*, October 2017.
99. A.S. Stillwell, A.M. Mroue, J.D. Rhodes, M.A. Cook, J.B. Sperling, T. Hussey, D. Burnett, and **M.E. Webber**, “Water for Energy: Systems Integration and Analysis to Address Resource Challenges,” *Current Sustainable/Renewable Energy Reports*, September 2017, Volume 4, Issue 3, pp 90–98.
98. C.M. James, **M.E. Webber** and T.F. Edgar, “Minimizing the Effect of Substantial Perturbations in Military Water Systems for Increased Resilience and Efficiency,” *Processes*, 5(4), 60 (2017).
97. C.I. Birney, K. Franklin, F.T. Davidson, and **M.E. Webber**, “An assessment of individual foodprints attributed to diets and food waste in the United States,” *Environmental Research Letters* Vol. **12** Number 10 (2017).
96. C. Galdeano, M.A. Cook and **M.E. Webber**, “Multilayer geospatial analysis of water availability for shale resources development in Mexico,” *Environmental Research Letters* **12** (2017).
95. E.L. Belmont, F.T. Davidson, Y.R. Glazer, E.A. Beagle, and **M.E. Webber**, “Accounting for Water Formation from Hydrocarbon Fuel Combustion in Life Cycle Analyses,” *Environmental Research Letters* **12** (2017) 094019.
94. L.A. Hurtado, J.D. Rhodes, P.H. Nguyen, I.G. Kamphuis, and **M.E. Webber**, “Quantifying demand flexibility based on structural thermal storage and comfort management of non-residential buildings: A comparison between hot and cold climate zones,” *Applied Energy* 195 (2017) 1047–1054.
93. T.A. Deetjen, J.D. Rhodes and **M.E. Webber**, “The impacts of wind and solar on grid flexibility requirements in the Electric Reliability Council of Texas,” *Energy* (2017).
<http://dx.doi.org/10.1016/j.energy.2017.02.021>
92. B.C. Roberts, A.R. Jones, O.A. Ezekoye, C.J. Ellison, and **M.E. Webber**, “Development of kinetic parameters for polyurethane thermal degradation modeling featuring a bioinspired catecholic flame retardant,” *Combustion and Flame* (2017) .

91. J.D. Rhodes, C.W. King, G. Gulen, S. Olmstead, J. Dyer, R.E. Hebner, F.C. Beach, T.F. Edgar, and **M.E. Webber**, “A geographically-resolved method to estimate levelized power plant costs with environmental externalities,” *Energy Policy*, Volume 102, March 2017, Pages 491–499.
90. R.L. Fares and **M.E. Webber**, “The impacts of storing solar energy in the home to reduce reliance on the utility,” *Nature Energy* **2** Article Number: 17001 (2017).
<https://doi.org/10.1038/nenergy.2017.1>
89. E.A. Grubert and **M.E. Webber**, “Synthetic flows for engineered systems with nonstationary parameters: A case study of Maui’s Wailoa Ditch,” *Journal of Hydrologic Engineering* (2017).
[http://dx.doi.org/10.1061/\(ASCE\)HE.1943-5584.0001468](http://dx.doi.org/10.1061/(ASCE)HE.1943-5584.0001468)
88. A.S. Stillwell and **M.E. Webber**, “Predicting the Specific Energy Consumption of Reverse Osmosis Desalination,” *Water* **8**(12) (2016).
87. B.C. Roberts, **M.E. Webber** and O.A. Ezekoye, “Why and How the Sustainable Building Community Should Embrace Fire Safety,” *Current Sustainable/Renewable Energy Reports*, December 2016, Vol. 3, Issue 3-4, pp 121–137. <https://dx.doi.org/10.1007/s40518-016-0060-2>
86. C.M. Beal, F.T. Davidson, **M.E. Webber** and J.C. Quinn, “Flare Gas Recovery for Algal Protein Production,” *Algal Research* **20** (2016) 142–152.
85. T.A. Deetjen, J.B. Garrison, J.D. Rhodes and **M.E. Webber**, “Solar PV integration cost variation due to array orientation and geographic location in the Electric Reliability Council of Texas,” *Applied Energy*, Volume 180, 607–616 (2016).
84. J.D. Rhodes, N-E.I. Bouhou, C.R. Upshaw, M.F. Blackhurst and **M.E. Webber**, “Residential energy retrofits in a cooling climate,” *Journal of Building Engineering*, Volume **16**, 112–118 (2016).
83. N.H. Putnam, K.J. Kinnevan, **M.E. Webber**, and C.C. Seepersad, “Trucks Off the Road: A Method for Assessing Economical Reductions of Logistical Requirements at Contingency Base Camps,” *Engineering Management Journal*, Volume 28, Issue 2 (2016).
82. C.R. Upshaw, J.D. Rhodes, and **M.E. Webber**, “Modeling Electric Load and Water Consumption Impacts from an Integrated Thermal Energy and Rainwater Storage System for Residential Buildings in Texas,” *Applied Energy* (2016).
81. M.A. Cook and **M.E. Webber**, “Food, Fracking, and Freshwater: The Potential for Markets and Cross-Sectoral Investments to Enable Water Conservation,” *Water*, **8**(2), 45 (2016).
<https://dx.doi.org/10.3390/w8020045>
80. J.R. Fyffe, A.C. Breckel, A.K. Townsend, and **M.E. Webber**, “Use of MRF residue as alternative fuel in cement production,” *Waste Management* **47**, pp. 276–284 (2016).
79. M.A. Cook, C.W. King, F.T. Davidson, and **M.E. Webber**, “Assessing the Impacts of Droughts and Heat Waves at Thermoelectric Power Plants in the United States Using Integrated Regression, Thermodynamic, and Climate Models,” *Energy Reports* Volume 1, November 2015, Pages 193–203.

78. C. Telenko, J.M. O'Rourke, **M.E. Webber** and C.C. Seepersad, "A Compilation of Design for Environment Guidelines," *Journal of Mechanical Design* (2015).
77. B.C. Roberts, **M.E. Webber** and O.A. Ezekoye, "Development of a Multi-Objective Optimization Tool for Selecting Thermal Insulation Materials in Sustainable Designs," *Energy and Buildings* (2015).
76. P.C. Frumhoff, V. Burkett, R.B. Jackson, R. Newmark, J. Overpeck and **M.E. Webber**, "Vulnerabilities and Opportunities at the Nexus of Electricity, Water and Climate," *Environmental Research Letters* (2015).
75. J.B. Kjellsson and **M.E. Webber**, "The Energy-Water Nexus: Spatially-resolved analysis of the potential for desalinating brackish groundwater by use of solar energy," *Resources: Special Issue on Groundwater Quantity and Quality*, pp. 1–13 (13 pp) (2015).
74. E.A. Grubert and **M.E. Webber**, "Energy for Water and Water for Energy on Maui Island, Hawaii," *Environmental Research Letters* (2015).
73. G.M. Gold and **M.E. Webber**, "The Energy-Water Nexus: An Analysis and Comparison of Various Configurations Integrating Desalination with Renewable Power," *Resources: Special Issue on Groundwater Quantity and Quality*, pp. 227–276 (50 pp) (2015).
72. M.A. Cook, K. Huber, and **M.E. Webber**, "Who Regulates It? Water Policy and Hydraulic Fracturing in Texas," *Texas Water Journal*, Vol. 6, No. 1, pp. 45–63 (19 pp) (2015).
71. C.R. Upshaw, J.D. Rhodes and **M.E. Webber**, "Modeling Peak Load Reduction and Energy Consumption Enabled by an Integrated Thermal Energy and Water Storage System for Residential Air Conditioning Systems in Austin, Texas," *Energy and Buildings*, pp. 21–32 (12 pp) (2015).
70. K.T. Sanders and **M.E. Webber**, "Evaluating the Energy and CO₂ Emissions Impacts of Shifts in Residential Water Heating in the United States," *Energy*, pp. 317–327 (11pp) (2015).
69. J.D. Rhodes, W.H. Gorman, C.R. Upshaw, and **M.E. Webber**, "Using BEopt (Energy-Plus) with energy audits and surveys to predict actual residential energy usage," *Energy and Buildings* **86** pp. 808–816 (2015).
68. R.L. Fares and **M.E. Webber**, "Combining a dynamic battery model with high-resolution smart grid data to assess microgrid islanding lifetime," *Applied Energy* **138** p. 482–489 (2015).
67. R.L. Fares and **M.E. Webber**, "A flexible model for economic operational management of grid battery energy storage," *Energy*, pp. 768–776 (9pp) (2014).
66. J.D. Rhodes, W.J. Cole, C.R. Upshaw, T.F. Edgar and **M.E. Webber**, "Clustering analysis of residential electricity demand profiles," *Applied Energy* **135** pp. 461–471 (2014).
65. A.P. Pacsi, K.T. Sanders, **M.E. Webber**, and D.T. Allen, "Spatial and temporal impacts on water consumption in Texas from shale gas development and use," *ACS Sustainable Chemistry and Engineering*, pp. 2028–2035 (8pp) (2014).

64. K.X. Perez, W.J. Cole, J.D. Rhodes, A. Ondeck, **M.E. Webber**, M. Baldea, and T.F. Edgar, “Nonintrusive Disaggregation of Residential Air-Conditioning Loads from Sub-hourly Smart Meter Data,” *Energy and Buildings* **81** pp. 316–325 (2014).
63. J.D. Rhodes, C.R. Upshaw, W.J. Cole, C.L. Holcomb, and **M.E. Webber**, “A multi-objective assessment of the effect of solar PV array orientation and tilt on energy production and system economics,” *Solar Energy* **108** pp. 28–40, (2014).
62. W.J. Cole, J.D. Rhodes, W.H. Gorman, K.X. Perez, **M.E. Webber** and T.F. Edgar, “Community-scale residential air conditioning control for effective grid management,” *Applied Energy* **130** pp. 428–436 (2014).
61. Y.R. Glazer, J.B. Kjellsson, K.T. Sanders, and **M.E. Webber**, “The Potential for Using Energy from Flared Gas for On-Site Hydraulic Fracturing Wastewater Treatment in Texas,” *Environmental Science and Technology Letters*, pp. 300-304 (5 pp) (2014).
60. K.T. Sanders, M. Blackhurst, C.W. King and **M.E. Webber**, “The Impact of Water Use Fees on Dispatching and Water Requirements for Water-Cooled Power Plants in Texas,” *Environmental Science and Technology*, pp. 7128–7135 (7pp) (2014).
59. C.B. Harris and **M.E. Webber**, “An empirically-validated methodology to simulate electricity demand for electric vehicle charging,” *Applied Energy*, **126**, pp. 172–181 (2014).
58. K.T. Sanders and **M.E. Webber**, “A comparative analysis of the greenhouse gas emissions intensity of wheat and beef in the United States,” *Environmental Research Letters*, **9** 044011 (2014).
57. A.S. Stillwell and **M.E. Webber**, “Geographic, technologic, and economic analysis of using reclaimed water for thermoelectric power plant cooling,” *Environmental Science and Technology*, **48** (8), pp 4588–4595 (2014).
56. E.A. Grubert, A.S. Stillwell and **M.E. Webber**, “Where Does Solar-Aided Seawater Desalination Make Sense? A Method For Identifying Sustainable Sites,” *Desalination* **339** pp. 10–17 (2014).
55. M.E. Clayton, A.S. Stillwell, and **M.E. Webber**, “Implementation of brackish groundwater desalination using wind-generated electricity: A case study of the energy-water nexus in Texas,” *Sustainability (special issue The Energy Sustainability Nexus)* **6**, pp. 758–778 (2014).
54. J.D. Rhodes, C.R. Upshaw, C.B. Harris, C.M. Meehan, D.A. Walling, P.A. Navratil, A.L. Beck, K. Nagasawa, R.L. Fares, W.J. Cole, H. Kumar, R.D. Duncan, C.L. Holcomb, T.F. Edgar, A. Kwasinski, and **M.E. Webber**, “Experimental and Data Collection Methods for a Large-Scale Smart Grid Deployment: Methods and First Results,” *Energy* **65** pp. 462–471 (2014).
53. R.L. Fares, J.P. Meyers, and **M.E. Webber**, “A Dynamic Model-Based Estimate of the Value of a Vanadium Redox Flow Battery for Frequency Regulation in Texas,” *Applied Energy* **113**, Pages 189–198 (10pp) (2014).

52. A.P. Pacsi, N.S. Alhajeri, M.D. Webster, **M.E. Webber**, and D.T. Allen, "Changing the spatial location of electricity generation to increase water availability in areas with drought: A feasibility study and quantification of air quality impacts in Texas," *Environmental Research Letters* **8** 035029 (7pp) (2013).
51. A.S. Stillwell and **M.E. Webber**, "Evaluating power generation operations in response to changes in surface water reservoir storage," *Environmental Research Letters* **8** 025014 (15pp) (2013).
50. C.W. King, A.S. Stillwell, K.T. Sanders and **M.E. Webber**, "Coherence between water and energy policies," *Natural Resources Journal* (98pp) (2013).
49. K.T. Sanders, C.W. King, A.S. Stillwell, and **M.E. Webber**, "Clean Energy and Water: Assessment of Mexico for Improved Water Services and Renewable Energy," *Environment, Development and Sustainability* (19pp) (2013).
48. A.S. Stillwell and **M.E. Webber**, "A Novel Methodology for Evaluating Economic Feasibility of Low-Water Cooling Technology Retrofits at Power Plants," *Water Policy* **15** (18pp) (2013).
47. E.A. Grubert, F.C. Beach and **M.E. Webber**, "Can switching fuels save water? A life cycle quantification of freshwater consumption for Texas coal- and natural gas-fired electricity," *Environmental Research Letters* **7** 045801 (11pp) (2012).
46. K.T. Sanders and **M.E. Webber**, "Evaluating the energy consumed for water use in the United States," *Environmental Research Letters* **7** 034034 (11pp) (2012).
45. C.B. Harris and **M.E. Webber**, "A temporal assessment of vehicle use patterns and their impact on the provision of vehicle-to-grid services," *Environmental Research Letters* **7** 034033 (9pp) (2012).
44. C.M. Beal, A.S. Stillwell, C.W. King, S.M. Cohen, H. Berberoglu, R.P. Bhattarai, R. Connelly, **M.E. Webber**, R.E. Hebner, "Energy Return on Investment for Algal Biofuel Production Coupled with Wastewater Treatment," *Water Environment Research*, Volume **84**, Number 9 (19pp) (2012).
43. C.M. Beal, R.E. Hebner, **M.E. Webber**, R.S. Ruoff, F. Seibert, and C.W. King, "Comprehensive Evaluation of Algal Biofuel Production: Experimental and Target Results," *Energies (Special Issue: Algal Fuel)* **5**(6) (39pp) (2012).
42. C.M. Beal, R.E. Hebner, **M.E. Webber**, "Thermodynamic Analysis of Algal Biocrude Production," *Energy*, Volume **44**, Issue 1 (19pp) (2012).
41. C.B. Harris, J.P. Meyers, and **M.E. Webber**, "A unit commitment study of the application of energy storage toward the integration of renewable generation," *Journal of Renewable and Sustainable Energy*, Volume **4**, Issue 1 (20pp) (2012).
40. A.K. Townsend and **M.E. Webber**, "An Integrated Analytical Framework for Quantifying the LCOE of Waste-to-Energy Facilities for a Range of Greenhouse Gas Emissions Policy and Technical Factors," *Waste Management* (12pp) (2012).

39. S.M. Cohen, G.T. Rochelle, and **M.E. Webber**, “Optimizing post-combustion CO₂ capture in response to volatile electricity prices,” *International Journal of Greenhouse Gas Control Technologies*, **8** (16pp) (2012).
38. A.S. Stillwell, K.M. Twomey, R. Osborne, D.M. Greene, D.W. Pedersen, and **M.E. Webber**, “An Integrated Energy, Carbon, Water and Economic Analysis of Reclaimed Water Use In Urban Settings: A Case Study of Austin, Texas,” *Journal of Water Reuse and Desalination*, **Vol 1 No 4**, pp. 208–223 (15pp) (2011).
37. N.S. Alhajeri, P. Donohoo, A.S. Stillwell, C.W. King, M.D. Webster, **M.E. Webber**, and D.T. Allen, “Using Market-Based Dispatching With Environmental Price Signals to Reduce Emissions and Water Use at Power Plants in the Texas Grid,” *Environmental Research Letters* **6** 044018 (9pp) (2011).
36. J.D. Rhodes, B. Stephens, and **M.E. Webber**, “Using energy audits to investigate the impacts of common air-conditioning design and installation issues on peak power and energy consumption in Austin, Texas,” *Energy and Buildings*, **43** 3271–3278 (8pp) (2011).
35. A.S. Stillwell, M.E. Clayton, and **M.E. Webber**, “Technical analysis of a river basin-based model of advanced power plant cooling technologies for mitigating water management challenges,” *Environmental Research Letters* **6** 034015 (11pp) (2011).
34. C.M. Beal, R.E. Hebner, **M.E. Webber**, R.S. Ruoff, and F. Seibert, “The Energy Return on Investment for Algal Biocrude: Results for a Research Production Facility,” *Bioenergy Research* **(5)**2:341–362 (22pp) (2012).
33. J.B. Garrison and **M.E. Webber**, “An Integrated Energy Storage Scheme for a Dispatchable Solar and Wind Powered Energy System,” *Journal of Renewable and Sustainable Energy* **3** 043101 (12pp) (2011).
32. T.M. Thompson, C.W. King, D.T. Allen, and **M.E. Webber**, “Air Quality Impacts of Plug-in Hybrid Electric Vehicles in Texas: Evaluating Three Battery Charging Scenarios,” *Environmental Research Letters* **6** 024004 (11pp) (2011).
31. S.M. Cohen, H.L. Chalmers, **M.E. Webber**, and C.W. King, “Comparing post-combustion CO₂ capture operation at retrofitted coal-fired power plants in the Texas and Great Britain electric grids,” *Environmental Research Letters* **6** 024001 (14pp) (2011).
30. S.M. Cohen, **M.E. Webber**, and G.T. Rochelle, “Utilizing Solar Thermal Energy for Post-Combustion CO₂ Capture,” *Journal of Energy and Power Engineering* (14pp) (2011).
29. A.S. Stillwell, C.W. King, **M.E. Webber**, I. J. Duncan and A. Hardberger, “The Energy-Water Nexus in Texas,” *Ecology and Society (Special Feature: The Energy-Water Nexus: Managing the Links between Energy and Water for a Sustainable Future)* **16** (1): 2 (20pp) (2011).
28. D.M. Wogan, **M.E. Webber**, and A.K. da Silva, “A Framework and Methodology for Reporting Geographically- and Temporally-Resolved Solar Data: A Case Study of Texas,” *Journal of Renewable and Sustainable Energy* (22pp) (2010).

27. C.M. Beal, C.H. Smith, **M.E. Webber**, R.S. Ruoff, and R.E. Hebner, "A Framework to Report the Production of Renewable Diesel from Algae," *Bioenergy Research*, Vol 4, Issue 1, p. 36 (25pp) (2011).
26. A.S. Stillwell, C.W. King, and **M.E. Webber**, "Desalination And Long-Haul Water Transfer as a Water Supply for Dallas, Texas: A Case Study Of The Energy-Water Nexus In Texas," *Texas Water Journal*, Volume 1, Number 1, Pages 33-41 (8pp) September 2010.
25. A.D. Cuellar and **M.E. Webber**, "Wasted Food, Wasted Energy: The Embedded Energy in Food Waste in the United States," *Environmental Science and Technology*, **44**(16) (6pp) July 21, 2010.
24. S.M. Cohen, G.T. Rochelle, and **M.E. Webber**, "Turning CO₂ Capture On & Off In Response To Electric Grid Demand: A Baseline Analysis Of Emissions And Economics," *ASME Journal of Energy Resources Technology*, Vol.132, Iss.2 (8pp) May 17, 2010.
23. A.S. Stillwell, D.C. Hoppock, and **M.E. Webber**, "Energy Recovery from Wastewater Treatment Plants in the United States: A Case Study of the Energy-Water Nexus," *Sustainability (special issue Energy Policy and Sustainability)* **2**(4) (18pp) (2010).
22. C.M. Beal, **M.E. Webber**, R.S. Ruoff and R.E. Hebner, "Lipid Analysis of *Neochloris oleoabundans* by Liquid State NMR," *Biotechnology and Bioengineering* (11pp) (2010).
21. C.W. King, **M.E. Webber** and I. J. Duncan, "The Water Needs for LDV Transportation in the United States," *Energy Policy*, Vol. 38 (2), pp 1157-1167 (11pp) (2010).
20. K.M. Twomey, A.S. Stillwell, and **M.E. Webber**, "The Unintended Energy Impacts of Increased Nitrate Contamination from Biofuels Production," *Journal of Environmental Monitoring* **12** (7pp) (2010).
19. T.M. Thompson, **M.E. Webber**, and D.T. Allen, "Air Quality Impacts of Using Overnight Electricity Generation to Charge PHEVs for Daytime Use," *Environmental Research Letters* **4** 014002 (12pp) January 2009.
18. C.W. King and **M.E. Webber**, "Water Intensity of Transportation," *Environmental Science and Technology*, 42(21), pp 7866-7872 (7pp) (September 24, 2008).
17. A.D. Cuellar and **M.E. Webber**, "Cow Power: The Energy and Emissions Benefits of Converting Manure to Biogas," *Environmental Research Letters*, **3** 034002 (8pp) July 2008.
16. C.W. King and **M.E. Webber**, "The Water Intensity of the Plugged-in Automotive Economy," *Environmental Science and Technology, Special Edition: World's Water*, **42**, 4305–4311 (7pp) 20 Feb 2008.
15. **M.E. Webber**, "The Water Intensity of the Transitional Hydrogen Economy," *Environmental Research Letters* **2** 034007 (7pp) (2007).
14. S.L. Pfleeger, M. Libicki, and **M.E. Webber**, "I'll Buy That! Cybersecurity in the Internet Marketplace," *IEEE Security and Privacy, special issue on Managing Organizational Security*, May/June 2007.

13. M.B. Pushkarsky, **M.E. Webber**, T. MacDonald, and C.K.N. Patel, "High Sensitivity, High-Selectivity Detection of Chemical Warfare Agents," *Applied Physics Letters*, January 27, 2006.
12. **M.E. Webber**, T. MacDonald, M.B. Pushkarsky, C.K.N. Patel, Y. Zhao, N. Marcillac and F.M. Mitloehner, "Agricultural ammonia sensor using diode lasers and photoacoustic spectroscopy," *Meas. Sci. Technol.* 16, pp. 1547-1553, 2005. **(Outstanding Paper award as MS&T's best paper for 2005, measurement science category.)**
11. **M.E. Webber**, M.B. Pushkarsky and C.K.N. Patel, "Optical Detection of Chemical Warfare Agents and Toxic Industrial Chemicals: Simulation," *Journal of Applied Physics* 97(11), 2005.
10. M.B. Pushkarsky, **M.E. Webber** and C.K.N. Patel, "Ultra-sensitive ambient ammonia detection using CO₂-laser-based photoacoustic spectroscopy," *Appl. Phys. B* 77(4), pp. 381-385, 2003.
9. **M.E. Webber**, M.B. Pushkarsky, and C.K.N. Patel, "Fiber-amplifier enhanced photoacoustic spectroscopy using near-infrared tunable diode lasers," *Applied Optics, LACEA Feature Issue*, 42(12), 2003.
8. M.B. Pushkarsky, **M.E. Webber**, O. Baghdassarian, L.R. Narasimhan, and C.K.N. Patel, "Laser-based photoacoustic ammonia sensors for industrial applications," *Applied Physics B*, 75(2-3), 2002.
7. **M.E. Webber**, R. Claps, F.V. Englich, F.K. Tittel, J.B. Jeffries and R.K. Hanson, "Measurements of NH₃ and CO₂ with distributed-feedback diode lasers Near 2 μm in bioreactor vent gases," *Applied Optics*, 40(24), 2001.
6. **M.E. Webber**, D.S. Baer, and R.K. Hanson, "Ammonia Monitoring Near 1.5 μm with Diode Laser Absorption Sensors," *Applied Optics*, 40(12), pp. 2031- 2042, 2001.
5. **M.E. Webber**, S. Kim, S.T. Sanders, D.S. Baer, R.K. Hanson and Y. Ikeda, "In Situ Combustion Measurements of CO₂ by Use of a Distributed-Feedback Diode Laser Sensor Near 2.0 μm ," *Applied Optics*, Vol. 40(6), 2001.
4. **M.E. Webber**, J. Wang, S.T. Sanders, D.S. Baer and R.K. Hanson, "In Situ Combustion Measurements of CO, CO₂, H₂O and Temperature Using Diode Laser Absorption Sensors," *Proceedings of the Combustion Institute*, 28, pp. 407-413, 2000.
3. E.R. Furlong, R.M. Mihalcea, **M.E. Webber**, D.S. Baer and R.K. Hanson, "Diode-laser sensors for real-time control of pulsed combustion systems," *AIAA Journal* 37(6), pp. 732-737, 1999.
2. **M.E. Webber**, R.M. Mihalcea, D.S. Baer, R.K. Hanson, J. Segall, P.A. DeBarber, "Diode Laser Absorption Measurement of Hydrazine and Monomethylhydrazine," *J. Quant. Spectrosc. Radiative Transfer*, 62(4), pp. 511-522 (1999).
1. R.M. Mihalcea, **M.E. Webber**, D.S. Baer, R.K. Hanson, G.S. Feller, and W.B. Chapman, "Diode-Laser Absorption Measurements of CO₂, H₂O, N₂O and NH₃ near 2.0 μm ," *Applied Physics B*, 67(3), 1998

Peer-Reviewed Conference Proceedings

105. J. Mertens, L. Goossens, A. Duterque and **M.E. Webber**, “On the need of piloting emerging energy technologies to achieve carbon neutrality,” H-NAT Summit 2021, June 2–3, 2021.
104. A. Bandyopadhyay, J.P. Conger, E.A. Beagle, **M.E. Webber** and B.D. Leibowicz, “Energetic and Economic Potential for Load Control for Residential Customers in Austin, TX,” Proceedings of the ASME 2020 International Mechanical Engineering Congress and Exposition, IMECE2020, November 13-19, 2020, Portland, OR, USA IMECE2020-23114.
103. A. Bandyopadhyay, J.P. Conger, **M.E. Webber**, B.D. Leibowicz, “A Decision Support Tool for Distributed Solar and Storage Investments: A Case Study in Austin, TX,” Proceedings of the 2019 ASME International Mechanical Engineering Congress and Exposition, November 11–14, 2019, Salt Lake City, UT. Volume 6: Energy: V006T06A094. DOI: 10.1115/IMECE2019-11068.
102. A. Bandyopadhyay, K. Ramirez-Meyers, E.D. Wikramanayake, B.D. Leibowicz, **M.E. Webber**, and V. Bahadur, “A Capacity Planning Model for Microgrids in Rural India, Proceedings of the 2019 ASME International Mechanical Engineering Congress and Exposition, November 11–14, 2019, Salt Lake City, UT. Volume 6: Energy: V006T06A096. DOI: 10.1115/IMECE2019-11707.
101. A. Bandyopadhyay, J.P. Conger, and **M.E. Webber**, “Energetic Potential for Demand Response in Detached Single Family Homes in Austin, TX,” Proceedings of the 2019 IEEE Texas Power and Energy Conference, February 7–8, 2019, College Station, TX. pp 1-6. DOI: 10.1109/TPEC.2019.8662166
100. A. Bandyopadhyay, J.D. Rhodes, J.P. Conger, and **M.E. Webber**, “How Solar and Storage can reduce Coincident Peak Loads and Payments: A Case Study in Austin, TX,” Proceedings of the 2018 ASME International Mechanical Engineering Congress and Exposition, November 9–15, 2018, Pittsburgh, PA. Volume 6B: Energy :V06BT08A023. DOI:10.1115/IMECE2018-86482.
99. W.N. Mann, S. Landsberger, and **M.E. Webber**, “Enhancing the Economics of Nuclear Power Through Heat Storage,” Transactions of the American Nuclear Society, Vol. 119, Orlando, Florida, November 11–15, 2018.
98. F.T. Davidson, G. Tsai, Zhenhong Lin, and **M.E. Webber**, “Estimating the Adoption Rate of Mobility Services and the Impact on Energy Consumption,” Annual University of Michigan Conference on Transportation, Economics, Energy and the Environment (TE3), Ann Arbor, Michigan 25-26 October 2018.
97. B. Berhanu, K.M. Boisvert, and **M.E. Webber**, “Statistical analysis and classification of non-residential water customers to improve parcel-level water demand modeling techniques,” Environmental and Water Resources Institute World Congress 2018, Minneapolis, MN. June 4th, 2018.

96. T.A. Deetjen, **M.E. Webber** and M. Hüber, “Optimizing capacity extensions in power systems: A case study of Bavaria and a comparison to Texas,” European Energy Market (EEM), 2017 14th International Conference.
95. H. Martin, T. Hamacher, T.A. Deetjen and **M.E. Webber**, “Reduced transmission grid representation using the St. Clair curve applied to the electric reliability council of Texas,” European Energy Market (EEM), 2017 14th International Conference.
94. T.A. Deetjen, J.S. Vitter and **M.E. Webber**, “Improving solar-induced grid-level flexibility requirements using residential central utility plants,” PowerTech, 2017 IEEE Manchester, June 18-22, 2017.
93. C.R. Upshaw, J.D. Rhodes and **M.E. Webber**, “Modeling Peak Electric Load Reduction and Change in Energy Consumption for an Integrated Thermal Energy and Rainwater Storage System Coupled With a Hydronic Residential Air Conditioning System in Texas,” The 3rd Sustainable Thermal Energy Management International Conference (SusTEM 2015), July 7–8, 2015, Newcastle upon Tyne, UK.
92. C.R. Upshaw, J.D. Rhodes and **M.E. Webber**, “Estimating Water Savings from an Auxiliary Water Collection System, as Part of an Integrated Thermal Energy and Water Storage System for Residential Buildings,” 2015 ASHRAE Winter Conference, Chicago, IL, January 24–28, 2015.
91. M.A. Cook, C.W. King and **M.E. Webber**, “Impacts of Temperature Thresholds on Power Generation in the Upper Mississippi River Basin under Different Climate Scenarios,” *ASME 2014 International Mechanical Engineering Congress & Exposition*, November 14–20, 2014. Montreal, Quebec, Canada.
90. B.C. Roberts, **M.E. Webber** and O.A. Ezekoye, “A Multi-objective Fire Safety and Sustainability Screening Tool for Specifying Insulation Materials,” *ASME 2014 International Mechanical Engineering Congress & Exposition*, November 14–20, 2014. Montreal, Quebec, Canada.
89. C.B. Harris and **M.E. Webber**, “The Sensitivity of Vehicle-To-Grid Revenues to Plug-In Electric Vehicle Battery Size and EVSE Power Rating,” *Proceedings of the IEEE Power and Energy Society (PES) General Meeting*, National Harbor, MD, July 27-31, 2014.
88. M.A. Cook and **M.E. Webber**, “The Influence of Hydraulic Fracturing on the Water Market in Texas,” *Proceedings of the Shale Energy Engineering 2014 Conference: Technical Challenges, Environmental Issues, and Public Policy*, American Society of Civil Engineers, Pittsburgh, Pennsylvania, July 21–23, 2014.
87. E.M. Keys and **M.E. Webber**, “Variable Speed Drives for Power Factor Correction in the Water Sector,” The 5th International Symposium on Power Electronics for Distributed Generation (PEDG) Systems, IEEE, June 24–27, 2014, Galway, Ireland.
86. W.J. Cole, K.X. Perez, J.D. Rhodes, **M.E. Webber**, M. Baldea, and T.F. Edgar, “Community-Scale Air Conditioning Control for High Penetration of Rooftop Photovoltaics,” 2014 American Control Conference, IEEE Control Systems Society, Portland, Oregon, June 4, 2014.

85. C.B. Harris and **M.E. Webber**, “The impact of vehicle charging loads on frequency regulation procurements in ERCOT,” *Proceedings of the 2014 IEEE Power & Energy Society (PES) Innovative Smart Grid Technologies Conference (ISGT)*, Washington, DC, February 19–22, 2014.
84. C.R. Upshaw, J.D. Rhodes and **M.E. Webber**, “Modeling a Combined Energy-Water Storage System for Residential Homes and Analyzing Water Storage Tank Size,” *ASME 2013 International Mechanical Engineering Congress & Exposition*, November 13–21, 2013, San Diego, CA, USA.
83. C.B. Harris and **M.E. Webber**, “Quantifying the Effect of Plug-In Electric Vehicles on Future Grid Operations and Ancillary Service Procurement Requirements,” *ASME 2013 International Mechanical Engineering Congress & Exposition*, November 13–21, 2013, San Diego, CA, USA.
82. J.B. Kjellsson, David Greene, Raj Bhattarai, and **M.E. Webber**, “Energy Benchmarking of Water and Wastewater Treatment, Distribution and Collection: Case Study of Austin Water Utility,” *ASME 2013 International Mechanical Engineering Congress & Exposition*, November 13–21, 2013, San Diego, CA, USA
81. M.A. Cook, C.W. King and **M.E. Webber**, “Implications of Thermal Discharge Limits on Future Power Generation in Texas,” *ASME 2013 International Mechanical Engineering Congress & Exposition*, November 13–21, 2013, San Diego, CA, USA.
80. K.T. Sanders, M. Blackhurst, and **M.E. Webber**, “Evaluating the feasibility of reducing water use in the power sector: A case study of ERCOT,” World Environmental and Water Resources Congress 2013, American Society of Civil Engineers, Cincinnati, OH, May 20–22, 2013.
79. M.A. Cook, A.S. Stillwell, C.W. King, and **M.E. Webber**, “Alternative Water Sources for Hydraulic Fracturing in Texas,” World Environmental and Water Resources Congress 2013, American Society of Civil Engineers, Cincinnati, OH, May 20–22, 2013.
78. R.L. Fares and **M.E. Webber**, “Dynamic Modeling of Community Energy Storage for Lifetime Estimation during Islanding,” 223rd ECS Meeting in Toronto, Ontario, Canada (May 12-16, 2013).
77. S.M. Cohen, **M.E. Webber**, and G.T. Rochelle, “The Impact of Electricity Market Conditions on the Value of Flexible CO₂ Capture,” *ASME 2012 International Mechanical Engineering Congress & Exposition*, November 9–15, 2012, Houston, TX, USA.
76. M.E. Clayton and **M.E. Webber**, “Assessment of Embedded Water Needs at a Mixed-Use Facility in Palo Alto, CA,” *ASME 2012 International Mechanical Engineering Congress & Exposition*, November 9–15, 2012, Houston, TX, USA.
75. A.S. Stillwell and **M.E. Webber**, “Value of Reservoir Storage for Resilient Power Plant Cooling and Basin-Wide Water Availability,” *ASME 2012 International Mechanical Engineering Congress & Exposition*, November 9–15, 2012, Houston, TX, USA.

74. A.C. Breckel, J.R. Fyffe, and **M.E. Webber**, "Net Energy and CO₂ Emissions Analysis of Using MRF Residue as Solid Recovered Fuel at Coal Fired Power Plants," *ASME 2012 International Mechanical Engineering Congress & Exposition*, November 9–15, 2012, Houston, TX, USA.
73. S.M. Cohen, G.T. Rochelle, and **M.E. Webber**, "Optimal CO₂ capture operation in an advanced electric grid," *Energy Procedia* (2013), *Proceedings of the 11th International Conference on Greenhouse Gas Technologies (GHGT-11)*, Kyoto, Japan (2012).
72. N.H. Putnam, C.C. Seepersad and **M.E. Webber**, "Designing Sustainable Military Base Camps Under Uncertain Operational Conditions," *Proceedings of the ASME 2012 International Design Engineering Technical Conferences*, August 12–15, 2012, Chicago, IL, US.
71. K. Nagasawa, C.R. Upshaw, J.D. Rhodes, C. Holcomb and **M.E. Webber**, "Data Management for a Large-Scale Smart Grid Demonstration Project in Austin, Texas," *Proceedings of the ASME 6th International Conference on Energy Sustainability*, July 23–26, 2012, San Diego, CA, USA.
70. K.M. Twomey, S. Conover, and **M.E. Webber**, "Reducing Residential and Commercial Energy Consumption in the US: The Role of Water Heaters," *Proceedings of the ASME 6th International Conference on Energy Sustainability*, July 23–26, 2012, San Diego, CA, USA.
69. C.M. Meehan, **M.E. Webber**, and K. Nagasawa, "The Net Impact of Wind Energy Generation on Emissions of Carbon Dioxide in Texas," *Proceedings of the ASME 6th International Conference on Energy Sustainability*, July 23–26, 2012, San Diego, CA, USA.
68. J.D. Rhodes, K. Nagasawa, C.R. Upshaw, and **M.E. Webber**, "The Role of Small Distributed Natural Gas Fuel Cell Technologies in the Smart Energy Grid," *Proceedings of the ASME 6th International Conference on Energy Sustainability*, July 23–26, 2012, San Diego, CA, USA.
67. J.D. Rhodes, B. Stephens, and **M.E. Webber**, "Energy Audit Analysis of Residential Air-Conditioning Systems In Austin, Texas," *ASHRAE 2012 Winter Conference*, January 21–25, 2012, Chicago, IL, USA.
66. A.K. Townsend and **M.E. Webber**, "Energetic and Economic Performance of a Compressed Air Energy Storage Facility in Texas as a Function of Technical and Cost Parameters," *ASME 2011 International Mechanical Engineering Congress & Exposition*, November 11–17, 2011, Denver, CO, USA.
65. J.R. Fyffe, M.E. Clayton, C.E. Grosvenor, and **M.E. Webber**, "Analysis of Large-Scale Ground Source Heat Pump Systems for Residential Heating and Cooling in Austin, TX," *ASME 2011 International Mechanical Engineering Congress & Exposition*, November 11–17, 2011, Denver, CO, USA.
64. J.R. Fyffe, A.K. Townsend, and **M.E. Webber**, "Thermodynamic Analysis of End-of-Life Pathways for Recycling Residue," *ASME 2011 International Mechanical Engineering Congress & Exposition*, November 11–17, 2011, Denver, CO, USA.

63. K.M. Twomey and **M.E. Webber**, “Evaluating The Carbon Embedded In The US Public Water Supply,” *ASME 2011 International Mechanical Engineering Congress & Exposition*, November 11–17, 2011, Denver, CO, USA.
62. M.E. Clayton, A.S. Stillwell, and **M.E. Webber**, “Implementation of Brackish Groundwater Desalination using Wind-Generated Electricity as a Proxy for Energy Storage: A Case Study of the Energy-Water Nexus in Texas,” *ASME 2011 International Mechanical Engineering Congress & Exposition*, November 11–17, 2011, Denver, CO, USA.
61. B.H. Gully, **M.E. Webber**, C.C. Seepersad, “Shaft Motor-Generator Design Assessment for Increased Operational Efficiency in Container Ships,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
60. C.R. Upshaw and **M.E. Webber**, “Integrated Thermal-Fluids System Modeling of an Ocean Thermal Energy Conversion Power Plant for Analysis and Optimization,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
59. C.E. Grosvenor, M.C. Lott, and **M.E. Webber**, “A Methodology for Evaluating the Environmental Trade-Offs for Different Travel and Information Communication Technologies (ICT),” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
58. E.A. Grubert and **M.E. Webber**, “Water, Energy, And Land Use Planning On Maui Island, Hawaii: Estimating Surface Water Supply,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
57. J.B. Garrison and **M.E. Webber**, “An Integrated Energy Storage Scheme For A Dispatchable Solar And Wind Powered Energy System And Analysis Of Dynamic Parameters,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
56. A.K. Townsend and **M.E. Webber**, “Optimization of Technical and Operational Characteristics of a CAES Facility in West Texas to Balance Intermittent Wind Power, *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
55. J.R. Fyffe, S.M. Cohen, and **M.E. Webber**, “Comparing Flexible CO₂ Capture In Gas- And Coal-Dominated Electricity Markets,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
54. K.M. Twomey and **M.E. Webber**, “Evaluating The Energy Intensity Of The US Public Water System,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.
53. N.H. Putnam, **M.E. Webber**, C.C. Seepersad, “Trucks Off The Road: A Volumetric Framework For Evaluating Energy Technologies For Forward Operating Military Base Camps,” *Proceedings of the ASME 5th International Conference on Energy Sustainability*, August 7–10, 2011, Washington, DC, USA.

52. A. Lozano and **M.E. Webber**, "Thermodynamic Analysis of a Novel Thermoelectric Generator in the Built Environment," 47th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, 9th Annual International Energy Conversion Engineering Conference, San Diego, CA, July 2011.
51. E.A. Grubert and **M.E. Webber**, "Modeling Maui's Freshwater System to Inform Water Resource Management," World Environmental and Water Resources Congress 2011, American Society of Civil Engineers, Palm Springs, CA, May 22-26, 2011.
50. A.S. Stillwell, K.M. Twomey, **M.E. Webber**, R. Osborne, D.M. Greene, D.W. Pedersen, "An Integrated Energy, Carbon, and Economic Analysis of Reclaimed Water Use in Austin, Texas," World Environmental and Water Resources Congress 2011, American Society of Civil Engineers, Palm Springs, CA, May 22-26, 2011.
49. M.E. Clayton, A.S. Stillwell, and **M.E. Webber**, "A Model of Implementing Advanced Power Plant Cooling Technologies to Mitigate Water Management Challenges in Texas River Basins," *ASME 2010 International Mechanical Engineering Congress & Exposition*, November 12–18, 2010, Vancouver, British Columbia, Canada.
48. B.H. Gully, **M.E. Webber** and C.C. Seepersad, "A Comparative Analysis Of Wind Propulsion Systems For Ocean-Going Vessels," *ASME 2010 International Mechanical Engineering Congress & Exposition*, November 12–18, 2010, Vancouver, British Columbia, Canada.
47. C.M. Beal, R.E. Hebner, **M.E. Webber**, R.S. Ruoff, and A.F. Seibert, "The Energy Return On Investment For Algal Biocrude: Results For A Research Production Facility," *ASME 2010 International Mechanical Engineering Congress & Exposition*, November 12–18, 2010, Vancouver, British Columbia, Canada.
46. A.S. Stillwell, M.E. Clayton, **M.E. Webber**, D.T. Allen and M. Webster, "A River Basin-Based Model of Advanced Power Plant Cooling Technologies for Mitigating Water Management Challenges," AICHE 20010 Annual Meeting, Salt Lake City, UT, 2010.
45. S.M. Cohen, G.T. Rochelle and **M.E. Webber**, "The Value of Flexible Post-Combustion CO₂ Capture in Response to Volatile Electricity Prices," *Energy Procedia* (2011), *Proceedings of the 10th International Conference on Greenhouse Gas Technologies (GHGT-10)*, Amsterdam, The Netherlands (2010).
44. J.B. Garrison and **M.E. Webber**, "An Integrated Energy Storage Scheme for a Dispatchable Solar and Wind Powered Energy System," in 23rd International Conference on Efficiency, Cost, Optimization, Simulation (ECOS) and Environmental Impact of Energy Systems, June 14–17, 2010, Lausanne, Switzerland.
43. A.S. Stillwell and **M.E. Webber**, "Feasibility Of Wind Power For Brackish Groundwater Desalination: A Case Study Of The Energy-Water Nexus In Texas," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
42. M.C. Lott and **M.E. Webber**, "Evaluation of H.R. 2454's Potential Impacts on Texas' Electricity Profile Using the Rosenfeld Effect as a Basis for Evaluation," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.

41. A.K. Townsend and **M.E. Webber**, "Technical and Economic Analysis of a Waste-to-Energy Plant for Austin, TX Under a Range of Greenhouse Gas Emissions Prices," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
40. A.D. Cuellar and **M.E. Webber**, "An Updated Estimate for Energy Use in U.S. Food Production and Policy Implications," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
39. B.H. Gully, **M.E. Webber**, C.C. Seepersad and R.C. Thompson, "Integrating Renewable Energy Technologies to Reduce Large Ship Fuel Consumption," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
38. C.B. Harris, **M.E. Webber** and J.P. Meyers, "Electric Utility Operational Cost and Emissions Management with Grid-Scale Energy Storage," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
37. D.M. Wogan, **M.E. Webber**, and A.K. da Silva, "A Resource-Limited Approach to Estimating Algal Biomass Production with Geographical Fidelity," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
36. E.A. Grubert and **M.E. Webber**, "The Impact of the American Clean Energy and Security Act of 2009 on Texas Water Systems," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
35. J.B. Garrison and **M.E. Webber**, "Simulating the Dynamic and Steady State Response of a Rotor Resistive Controlled 1.5 MW Variable Speed Wind Turbine," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
34. J.R. Fyffe, S.M. Cohen, **M.E. Webber**, and G.T. Rochelle, "Analysis of Flexible CO₂ Capture Over An Investment Life Using A Dynamic Electric Grid Model," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
33. K.M. Twomey and **M.E. Webber**, "Evaluating the Cost of Food in a Carbon Constrained Economy," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US. [Best Student Paper Award]
32. S.M. Cohen, **M.E. Webber** and G.T. Rochelle, "Using Solar Thermal energy for Post-Combustion CO₂ Capture," *Proceedings of the ASME 4th International Conference on Energy Sustainability*, May 17–22, 2010, Phoenix, AZ, US.
31. A.S. Stillwell and **M.E. Webber**, "Water Conservation and Reuse: A Case Study of the Energy-Water Nexus in Texas," World Environmental and Water Resources Congress 2010, Providence, Rhode Island, USA.
30. C. Telenko, C.C. Seepersad, and **M.E. Webber**, "A Method for Developing Design for Environment Guidelines for Future Product Design," Proceedings of ASME IDETC/CIE 2009, August 30-September 2, 2009, San Diego, CA.

29. B.H. Gully, **M.E. Webber**, C.C. Seepersad, and R.C. Thompson, “Energy Storage Analysis to Increase Large Ship Fuel Efficiency,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
28. C.M. Beal, C.H. Smith, **M.E. Webber** and R.S. Ruoff, “A Framework to Report the Production of Biodiesel from Algae,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
27. C.W. King and **M.E. Webber**, “Methodology for Calculating the Ability of Renewable Energy Systems to Manufacture Themselves,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
26. J.B. Garrison, M. Kapner and **M.E. Webber**, “A First Order Thermodynamic And Economic Analysis For Integrating Thermal And Compressed Air Energy Storage For A Dispatchable Wind And Solar Powered System,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
25. S.M. Cohen, J.R. Fyffe, G.T. Rochelle and **M.E. Webber**, “The Effect of Fossil Fuel Prices on Flexible CO₂ Capture Operation,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
24. A.D. Cuellar and **M.E. Webber**, “Policy Incentives, Barriers and Recommendations for Biogas Production,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
23. D.M. Wogan, A.K. da Silva, and **M.E. Webber**, “Assessing the Potential for Algal Biofuels Production in Texas,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
22. A.S. Stillwell, C.W. King, and **M.E. Webber**, “Desalination And Long-Haul Water Transfer A Case Study Of The Energy-Water Nexus In Texas,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
21. K.M. Twomey, A.S. Stillwell, and **M.E. Webber**, “The Water Quality and Energy Impacts of Biofuels,” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
20. M.C. Lott, C.W. King, and **M.E. Webber**, “Analyzing Tradeoffs in Electricity Choices Using the Texas Interactive Power Simulator (TIPS),” *Proceedings of the ASME 3rd International Conference on Energy Sustainability*, July 19–23, 2009, San Francisco, CA, USA.
19. M.C. Lott, C.W. King, and **M.E. Webber**, “Using the Texas Interactive Power Simulator (TIPS) for Direct Instruction,” Proceedings of the ASEE Annual Meeting, Austin, TX, 2009.
18. A.S. Stillwell and **M.E. Webber**, “Energy and Water: Integration for Sustainable Policy,” APSA, Proceedings of the International Sustainability Conference, Villanova University, April 22-25, 2009.
17. M.C. Lott, C.W. King, **M.E. Webber** and K. Schmidt, “The Texas Interactive Power Simulator — An Analytical Tool for Direct Instruction & Informing the Public,” ASEE GSW Conference 2009, Waco, TX, March 2009.

16. S. Ziaii, S.M. Cohen, G.T. Rochelle, T.F. Edgar and **M.E. Webber**, "Dynamic operation of amine scrubbing in response to electricity demand and pricing," *Energy Procedia*, Volume 1, Issue 1, February 2009, Pages 4047-4053, *Proceedings of the 9th International Conference on Greenhouse Gas Control Technologies (GHGT-9)*, Washington DC, USA (2008).
15. A.D. Cuellar and **M.E. Webber**, "Cow Power: The Energy And Air Quality Benefits Of Converting Manure To Biogas," International Mechanical Engineering Congress & Exposition 2008, ASME: Boston, MA
14. E.M. Keys and M.E. Webber, "An Assessment and Comparison of Installed Solar and Wind Capacity in Texas" *Proceedings of the ASME 2nd International Conference on Energy Sustainability*, August 10–14, 2008, Jacksonville, FL, USA.
13. S.M. Cohen, G.T. Rochelle and **M.E. Webber**, "Turning CO₂ Capture On & Off in Response to Electric Grid Demand in Texas: A Baseline Analysis of Emissions and Economics," *Proceedings of the ASME 2nd International Conference on Energy Sustainability*, August 10–14, 2008, Jacksonville, FL, USA.
12. C.W. King, **M.E. Webber**, and I.J. Duncan, "Water Intensity Of Transportation Fuels: Water Projections For Fuel Adoption Rates Of Light Duty Vehicles," *Proceedings of the ASME 2nd International Conference on Energy Sustainability*, August 10–14, 2008, Jacksonville, FL, USA.
11. C.H. Smith, D.M. Leahey, L.E. Miller, J.L. Ellzey and **M.E. Webber**, "Conversion of Wet Ethanol to Syngas and Hydrogen," *Proceedings of the ASME 2nd International Conference on Energy Sustainability*, August 10–14, 2008, Jacksonville, FL, USA. [Best Student Paper Award]
10. C. Telenko, C.C. Seepersad and **M.E. Webber**, "A Compilation Of Design For Environment Principles And Guidelines," Proceedings of ASME IDETC/CIE 2008, August 3-6, 2008, New York, NY.
9. M.B. Pushkarsky, **M.E. Webber**, and C.K.N. Patel, "High-sensitivity high-selectivity detection of CWAs and TICs using tunable laser photoacoustic spectroscopy," Proceedings of SPIE – Volume 5732, Quantum Sensing and Nanophotonic Devices II, Manijeh Razeghi, Gail J. Brown, Editors, March 2005, pp. 93-107.
8. **M.E. Webber**, M.B. Pushkarsky, and C.K.N. Patel, "Optical detection of chemical warfare agents and toxic industrial chemicals," Proceedings of SPIE Vol. 5617, Optically Based Biological and Chemical Sensing for Defence, edited by John C. Carrano, Arturas Zukauskas (SPIE, Bellingham, WA, 2004).
7. M.B. Pushkarsky, **M.E. Webber**, Tyson MacDonald and C.K.N. Patel, "High sensitivity photoacosutic detection of chemical warfare agents," Invited Paper, Proceedings of SPIE Vol. 5617, Optically Based Biological and Chemical Sensing for Defence, edited by John C. Carrano, Arturas Zukauskas (SPIE, Bellingham, WA, 2004).
6. **M.E. Webber**, M.B. Pushkarsky and C.K.N. Patel, "Agricultural ammonia sensor using diode lasers and photoacoustic spectroscopy," Proceedings of the Laser Applications for

Chemical and Environmental Analysis (LACEA) Topical Meeting, Optical Society of America, Annapolis, MD, February 9–11, 2004.

5. M.B. Pushkarsky, **M.E. Webber** and C.K.N. Patel, “Ultra-sensitive ambient trace-gas sensor using CO₂ lasers and photoacoustic spectroscopy,” Proceedings of the Laser Applications for Chemical and Environmental Analysis (LACEA) Topical Meeting, Optical Society of America, Annapolis, MD, February 9–11, 2004.
4. **M.E. Webber**, M.B. Pushkarsky, and C.K.N. Patel, “Ultra-Sensitive Gas Detection Using Diode Lasers and Resonant Photoacoustic Spectroscopy,” Proc. Of SPIE, vol. 4817 (2002), pp. 111–122, SPIE’s International Symposium on Optical Science and Technology, Seattle, WA.
3. **M.E. Webber**, M.B. Pushkarsky, O. Baghdassarian, L.R. Narasimhan, and C.K.N. Patel, “Ultra-sensitive ammonia detection for industrial applications using photoacoustic spectroscopy,” Proceedings of the Laser Applications for Chemical and Environmental Analysis (LACEA) Topical Meeting, Optical Society of America, Boulder, CO, February 9–11, 2002.
2. **M.E. Webber**, S. Kim, D.S. Baer, and R.K. Hanson, “In Situ Combustion Diagnostics using Diode Laser Absorption Sensors,” Laser Applications to Chemical and Environmental Analysis (LACEA), Santa Fe, NM, Feb., 2000.
1. E.R. Furlong, R.M. Mihalcea, **M.E. Webber**, D.S. Baer, and R.K. Hanson, “Diode-Laser Sensor System for Closed-Loop Control of a 50-kW Incinerator,” Proc. of SPIE, Vol. 3172, paper 33; presented at 42nd annual SPIE meeting, San Diego, July, 1997.

Books, Chapters, Reviews, Forewords and Course APPs

Books

8. **M.E. Webber**, HUNGER FOR POWER: FEEDING AND ENERGIZING THE PLANET, Supported by the Rockefeller Foundation Writer's Residency Program, (*In Preparation*).
7. **M.E. Webber**, POWERING HUMANITY: ESSAYS ON ENERGY AND SOCIETY, Supported by the Rockefeller Foundation Writer's Residency Program, Book Baby, (eBook: December 18, 2023; printed book: February 14, 2024). [\[Link\]](#)
6. J. Johnson and **M.E. Webber**, FROM ATHLETICS TO ENGINEERING: 8 WAYS TO SUPPORT DIVERSITY, EQUITY, AND INCLUSION FOR ALL, Johnber Multimedia, April 2021. [\[Link\]](#)
5. R.D. Duncan and **M.E. Webber**, THE FUTURE OF BUILDINGS, TRANSPORTATION AND POWER, August 9, 2020. [\[Link\]](#)
4. **M.E. Webber**, POWER TRIP: THE STORY OF ENERGY, Basic Books, May 7, 2019. [\[Link\]](#)
3. **M.E. Webber**, THIRST FOR POWER: ENERGY, WATER AND HUMAN SURVIVAL, Yale University Press, April 26, 2016. [\[Link\]](#)
2. **M.E. Webber**, CHANGING THE WAY AMERICA THINKS ABOUT ENERGY, Petroleum Teaching Extension (PETEX), The University of Texas at Austin (2009).
1. S.K. Cotton, Ulrich Petersohn, M. Dunigan, Q. Burkhart, M. Zander-Cotugno, E. O'Connell, and **M.E. Webber**, HIRED GUNS: VIEWS ABOUT ARMED CONTRACTORS IN OPERATION IRAQI FREEDOM, RAND (2010).

Book Chapters

14. S.C. Johnson, F.T. Davidson, J.D. Rhodes, J.L. Coleman, S.M. Bragg-Sitton, E.J. Dufek, and **M.E. Webber**, "Selecting Favorable Energy Storage Technologies for Nuclear Power," in STORAGE AND HYBRIDIZATION OF NUCLEAR ENERGY, Academic Press, Pages 119–175 (2019).
13. **M.E. Webber**, "Water for Electricity Generation in the US," in COMPETITION FOR WATER RESOURCES: EXPERIENCES AND MANAGEMENT APPROACHES IN THE U.S. AND EUROPE, Jadwiga R. Ziolkowska and Jeffrey M. Peterson (Editors), Elsevier (2016) (*Accepted for publication October 21, 2014*).
12. C.R. Upshaw, R. McKeeman, and **M.E. Webber**, "The Energy, Water, Food, and Population Growth Nexus," in ENERGY X CHANGE: MÜNCHEN UND AUSTIN: REGIONALE ZENTREN NACHHALTIGER ENTWICKLUNG MUNICH AND AUSTIN: REGIONAL CENTERS OF SUSTAINABLE INNOVATION, Petra Liedl (Editor), Beuth Verlag (publisher) (2015).
11. **M.E. Webber**, "Visiting the World Around Us," in SIGNATURE COURSE STORIES, Lori Holleran Steiker (Editor), University of Texas Press, pp. 102–105 (2015).

10. **M.E. Webber**, “Feedback Separates Good Teachers from Master Teachers” in **THE LITTLE ORANGE BOOK: LESSONS IN TEACHING FROM EXPERIENCED EDUCATORS**, Brent Iverson and Beth Brunk-Chavez (Editors), University of Texas Press, pp. 76–77 (2015).
9. **M.E. Webber**, “Elevate Your Audience” in **THE LITTLE ORANGE BOOK: LESSONS IN TEACHING FROM EXPERIENCED EDUCATORS**, Brent Iverson and Beth Brunk-Chavez (Editors), University of Texas Press pp. 58–59 (2015).
8. **M.E. Webber**, “Let Them In On The Secret,” in **THE LITTLE ORANGE BOOK: LESSONS IN TEACHING FROM EXPERIENCED EDUCATORS**, Brent Iverson and Beth Brunk-Chavez (Editors), University of Texas Press, pp. 28–29 (2015).
7. **M.E. Webber**, “The Global Nexus of Energy and Water,” in **THE UNITED NATIONS WORLD WATER DEVELOPMENT REPORT 4 (WWDR4): MANAGING WATER UNDER UNCERTAINTY AND RISK** (Chapter 19), United Nations World Water Assessment Programme, Programme Office for Global Water Assessment, Division of Water Sciences, UNESCO, Colombella, Perugia, Italy, pp. 465–479 (2012) (15 pp).
6. D. Coates, R. Connor, L. Leclerc, W. Rast, K. Schumann, and **M.E. Webber**, “Water demand: What drives consumption?,” in **THE UNITED NATIONS WORLD WATER DEVELOPMENT REPORT 4 (WWDR4): MANAGING WATER UNDER UNCERTAINTY AND RISK** (Chapter 2), United Nations World Water Assessment Programme, Programme Office for Global Water Assessment, Division of Water Sciences, UNESCO, Colombella, Perugia, Italy, pp. 44–76 (2012) (33 pp).
5. **M.E. Webber**, “The Nexus of Energy and Water in the United States,” in **PHYSICS OF SUSTAINABLE ENERGY II: USING ENERGY EFFICIENTLY AND PRODUCING IT RENEWABLY**, David W. Hafemeister, Daniel Kammen, Barbara G. Levi, and Peter Schwartz (Editors), American Institute of Physics Conference Proceedings, pp. 84–106 (2011) (22 pp).
4. **M.E. Webber**, “Energy Technologies of the Future,” in **FUNDAMENTALS OF PETROLEUM** (5TH EDITION), Petroleum Teaching Extension (PETEX), The University of Texas at Austin, pp. 607–633 (2011) (20pp).
3. **M.E. Webber**, “The USA: The Key Global Driver,” in **ENERGY AND THE TRANSFORMATION OF INTERNATIONAL SECURITY RELATIONS: TOWARD A NEW PRODUCER-CONSUMER FRAMEWORK**, Oxford University Press (2009) (25pp).
2. C.W. King and **M.E. Webber**, “Energy from Water,” in **TEXAS RENEWABLE ENERGY RESOURCE ASSESSMENT**, Texas State Energy Conservation Office (December 2008) (20pp).
1. **M.E. Webber**, “Erosion of the U.S. Defense Industrial Support Base,” in **MANUFACTURING A BETTER FUTURE FOR AMERICA**, The Alliance for American Manufacturing (Jan 2009) (35pp).

Book Jacket Reviews

7. David Spence , “Climate of Contempt: How to Rescue the U.S. Energy Transition from Voter Partisanship by David Spence,” Columbia University Press (2024).

6. Doug Arent, "Our Renewable Energy Future: The Remarkable Story of How Renewable Energy Will Become the Basis for Our Lives," World Scientific Publishing (2024).
5. Jeffrey Rissman, "Zero-Carbon Industry: Technologies and Policies to Transform Global Industry and Achieve Sustainable Prosperity," Columbia University Press (2024).
4. David Sedlak, "Water for All: Global Solutions for a Changing Climate," Yale University Press (2023).
3. Robert Lifset, Raechel Lutz and Sarah Stanford-McIntyre (Editors), "American Energy Cinema (Energy and Society)," West Virginia University Press (2023).
2. Katherine Blunt, "California Burning: The Fall of Pacific Gas and Electric and What It Means for America's Power Grid," Penguin (2022).
1. Kate Galbraith and Asher Price, "The Great Texas Wind Rush: How George Bush, Ann Richards, and a Bunch of Tinkerers Helped the Oil and Gas State Win the Race to Wind Power," University of Texas Press (2013).

Book Forewords

2. **M.E. Webber**, "Global Problems Need Global Solutions" in **UNLOCKING CLIMATE GRIDLOCK: HOW DIPLOMACY, TECHNOLOGY, AND POLICY CAN DECARBONIZE THE UNITED STATES AND BEYOND**, by Daniel S. Cohan, Yale Press (2022).
1. **M.E. Webber**, "To Solve Global Energy and Environmental Challenges, We Need Women On the Team," for the chapter *Connected by the Environment: The Unique Yet Intertwined Journeys of Two Energy and Water Researchers* by A. Bandyopadhyay and Y.R. Glazer in **WOMEN IN MECHANICAL ENGINEERING: ENERGY AND ENVIRONMENT**, Springer Academic (2021).

Full Length Course APPS

4. **M.E. Webber** and E.A. Beagle, **HYDROGEN 101: INTRODUCTION TO HYDROGEN TECHNOLOGY AND POLICY**, UT Austin (2024). [www.Hydrogen101.com]
3. **M.E. Webber** and Y.R. Glazer, **ENERGY 101: ENERGY TECHNOLOGY AND POLICY**, UT Austin (2014) (Adopted as a reference for energy courses at Princeton, Penn State, Stanford, Colorado State, U. Maryland, U. Calgary, U.S. Military Academy at West Point, Florida Atlantic University, Duke University, Colorado College and many Fortune 500 corporations). [www.Energy101.com]
2. **M.E. Webber**, **THERMO 101: INTRODUCTION TO ENGINEERING THERMODYNAMICS**, UT Austin (Based on the Book: **THERMODYNAMICS: AN INTEGRATED LEARNING SYSTEM**, by Schmidt, Ezekoye, Howell, and Baker, John Wiley and Sons (2006)). [www.Thermo101.com]
1. **M.E. Webber**, **RESOURCEFULNESS**, DISCO Learning Media (2016) (Based on the Book: **THIRST FOR POWER: ENERGY, WATER AND HUMAN SURVIVAL**, Yale University Press (2016)). [<https://stem.guide>]

Feature Articles, Op-Eds, Columns and Technical Commentary

Webber has authored or co-authored more than 200 popular columns including op-eds, technical commentary and feature articles for notable outlets such as *The Wall Street Journal*, *Bloomberg View*, *The New York Times*, *Washington Post*, *Boston Globe*, *Slate*, *Fortune*, *Scientific American*, and *Popular Science*. A select list of those columns is included here.

230. **M.E. Webber**, “The Good, Bad and Ugly of Trump’s Chaotic Energy Policy,” *Houston Chronicle*, December 31, 2025. [\[Link\]](#)
229. H.R. Kennard and **M.E. Webber**, “Torque of the Town,” *Mechanical Engineering*, December 2025. [\[Link\]](#)
228. **M.E. Webber**, “Why is the GOP adopting Democrats’ worst energy ideas?”, *Houston Chronicle*, October 7, 2025. [\[Link\]](#)
227. **M.E. Webber** “Floating Nuclear to the Rescue,” *Mechanical Engineering*, September 2025.
226. **M.E. Webber**, “Coal’s Brightest Future May Not Be as a Fuel,” *Mechanical Engineering*, July 8, 2025.
225. **M.E. Webber**, “The Electric State: Plasmas, the underappreciated fourth state of matter, might well be a platform technology for a sustainable future,” *Mechanical Engineering*, July 2025
224. **M.E. Webber**, “Photons and Electrons Are Intertwined,” *Mechanical Engineering*, May 2025.
223. S.C. Reynolds, Y.R. Glazer and **M.E. Webber**, “Utilities don’t share a definition of ‘resilience’ to extreme weather,” *Renewable Energy World*, February 27, 2025. [\[Link\]](#)
222. **M.E. Webber**, “Trump Wants to Kill Clean Energy. He’s Too Late.” *The New York Times*, February 11, 2025. [\[Link\]](#)
221. **M.E. Webber**, “Scaling Up, Scaling Down,” *Mechanical Engineering*, February 2025.
220. **M.E. Webber**, “Look What’s Back: Nuclear Power,” *Mechanical Engineering*, December 2024.
219. **M.E. Webber**, “Energy Policy Is a Bipartisan Success,” *Mechanical Engineering*, October 2024.
218. **M.E. Webber**, “The Electric Grid Is a Wildfire Hazard. It Doesn’t Have to Be.” *The New York Times*, August 17, 2024. [\[Link\]](#)
217. **M.E. Webber**, “Is AI Too Power-Hungry for Our Own Good?,” *Mechanical Engineering*, July 2024. [\[Link\]](#)
216. **M.E. Webber** and J.D. Rhodes, “Texas’ power grid wasn’t made for the rapid succession of storms it sees now,” *MSNBC*, July 12, 2024. [\[Link\]](#)

215. **M.E. Webber**, “Peak Gasoline is in the Rear-View Mirror,” *Mechanical Engineering*, June/July 2024.
214. **M.E. Webber**, “Electrifying Oil Makes Dollars and Sense,” *Mechanical Engineering*, April/May 2024.
213. **M.E. Webber**, “Green energy growth has great potential. Politics is messing it up.” *Austin American-Statesman*, March 21, 2024. [\[Link\]](#)
Dallas Morning News, March 23, 2024 [\[Link\]](#)
San Antonio Express-News, March 27, 2024 [\[Link\]](#)
Waco Tribune-Herald, March 29, 2024 [\[Link\]](#)
212. **M.E. Webber**, “Mirage or Oasis for Climate Action?,” *Mechanical Engineering*, February/March 2024. [Online December 14, 2023] [\[Link\]](#)
211. **M.E. Webber**, “Why the EV Transition Will Happen Fast,” *Mechanical Engineering*, December 2023/January 2024.
210. **M.E. Webber**, “How George W. Bush helped mitigate the climate crisis,” *Dallas Morning News*, December 19, 2023. [\[Link\]](#)
209. D. Arent, E.A. Beagle, L. Beltran, S. Borghesi, B. Cardoso, S. Carley, A. Dayal, P. du Pont, J. Dutra, A. Ghosh, N. Iseppi, D. Kammen, J. Layke, A. Ngobeni, S. Pachauri, K.T. Sanders, B. Sovacool, A. Shpitsberg, C. Ulman, and **M.E. Webber**, “Hearts and Minds: We Need to Understand the Critical Role of Human, Social, and Institutional Leadership to Achieve the Goals of the 2015 Paris Agreements,” *Inter Press Service News Agency*, December 1, 2023. [\[Link\]](#)
208. **M.E. Webber**, “Harnessing Sustainability in U.S. Higher Ed,” *Inside Higher Ed*, November 2023. [\[Link\]](#)
207. **M.E. Webber**, “A clean energy powerhouse: Sure as the sun shines and the wind blows, South Texas can lead the way to change,” *San Antonio Express-News*, November 8, 2023. [Online title: South Texas is the key to unlocking our transition to clean energy] [\[Link\]](#)
206. **M.E. Webber**, “Texas Can Go Big To Reach Net Zero,” *Mechanical Engineering*, October/November 2023.
205. **M.E. Webber**, “The Story of Energy in Texas,” *If the Sky Were Orange: Art in the Time of Climate Change*, Blanton Museum of Art, September 9, 2023 to February 11, 2024. [\[Link\]](#)
204. **M.E. Webber**, “Part One — Renewable Energy: Michael Webber on Jamey Stillings’ CHANGING PERSPECTIVES,” *If the Sky Were Orange: Art in the Time of Climate Change*, Blanton Museum of Art, September 9, 2023 to February 11, 2024. [\[Link\]](#)
203. G. Brew and **M.E. Webber**, “Japan’s EV Misstep Is a Cautionary Tale for Industrial Policy,” *Barron’s*, July 20, 2023. [\[Link\]](#)
202. **M.E. Webber**, “You Should Be Getting Paid to Prevent Heat Wave Power Outages,” *The New York Times*, June 29, 2023. [\[Link\]](#)

201. **M.E. Webber**, “Space: The Final Energy Frontier,” *Mechanical Engineering*, June/July 2023.
200. **M.E. Webber**, “Will Texas Blow Up Its Energy Miracle to Bolster Fossil Fuels?,” *The New York Times*, May 12, 2023. [\[Link\]](#)
199. Evan Mintz and **M.E. Webber**, “Stop wasting human, natural capital,” *San Antonio Express-News*, May 5, 2023. [\[Link\]](#)
198. **M.E. Webber** “The Hot Ocean Beneath Our Feet,” *Mechanical Engineering*, April/May 2023.
197. **M.E. Webber** “We’re Due for New Innovations,” *Mechanical Engineering*, February/March 2023.
196. **M.E. Webber**, D. A. Kassel, J.D. Rhodes and M. Skiles “Two years after its historic deep freeze, Texas is increasingly vulnerable to cold snaps — and there are more solutions than just building power plants,” *The Conversation*, February 10, 2023. [\[Link\]](#)
195. **M.E. Webber**, “Resource Constraints and Renewable Energy,” *Mechanical Engineering*, December 2022/January 2023.
194. **M.E. Webber**, “My own personal electrification journey,” *Mechanical Engineering*, August/September 2022.
193. **M.E. Webber**, “Are Gas Utilities About to Enter a Death Spiral?” *Mechanical Engineering*, September 8, 2022. [\[Link\]](#)
192. **M.E. Webber** and D. Chokshi, “COVID-19 offers lessons on fighting climate change,” *The Hill*, August 17, 2022. [\[Link\]](#)
191. **M.E. Webber** and H. Daigle, “Next US energy boom could be wind power in the Gulf of Mexico,” *The Conversation*, August 16, 2022. [\[Link\]](#)
190. **M.E. Webber**, “Mechanical Engineers to the Rescue,” *Mechanical Engineering*, June/July 2022. [\[Link\]](#)
189. **M.E. Webber**, “Russia’s weaponization of natural gas could backfire by destroying demand for it,” *The Conversation*, April 29, 2022. [\[Link\]](#)
188. **M.E. Webber**, “Cleansing the Air” for the special report CLIMATE CHANGE: THE TECHNOLOGIES THAT COULD MAKE ALL THE DIFFERENCE, *The Wall Street Journal*, April 22, 2022. [\[Link\]](#)
187. I.M. Gee and **M.E. Webber**, “How the Texas economy can grow even if the state cuts carbon emissions to net zero,” *Dallas Morning News*, April 13, 2022. [\[Link\]](#)
186. **M.E. Webber**, “A Call for Dirigibles,” *Mechanical Engineering*, April/May 2022. [\[Link\]](#)
185. **M.E. Webber**, “Texas freedom gas comes to the rescue in Europe,” *Dallas Morning News*, March 5, 2022. [\[Link\]](#)

184. **M.E. Webber**, “When Will Texas Emerge From the Dark?”, *The New York Times*, February 15, 2022. [\[Link\]](#)
183. **M.E. Webber**, “Climate of Optimism,” *Mechanical Engineering*, February/March 2022. [\[Link\]](#)
182. **M.E. Webber**, “Knowledge Is Power Is Knowledge,” *Mechanical Engineering*, February/March 2022. [\[Link\]](#)
181. **M.E. Webber**, “Over the Hills and Far Away,” *Mechanical Engineering*, December 2021/January 2022.
180. **M.E. Webber**, “How I Cut My Use of Fossil Fuels: Tips From the Pros,” for a feature titled A WORK IN PROGRESS, *The Wall Street Journal*, November 8, 2021. [\[Link\]](#)
179. **M.E. Webber**, “The Race for Arctic Resources” *Mechanical Engineering*, October 25, 2021. [\[Link\]](#)
178. **M.E. Webber** “Let’s face it, Texas: natural gas let us down. Again.”, *Dallas Morning News*, August 15, 2021. [\[Link\]](#)
177. A. Dayal and **M.E. Webber**, “What The Texas Blackout Means for Africa,” *African Leadership Magazine*, September 21, 2021. [\[Link\]](#)
176. **M.E. Webber**, “Interruptible Power,” *Mechanical Engineering*, August/September 2021. [\[Link\]](#)
175. **M.E. Webber**, “The Case for Cross-Sectoral Disruption,” *Mechanical Engineering*, August/September 2021. [\[Link\]](#)
174. **M.E. Webber**, “Attacking Texas’ renewable energy won’t keep the lights on,” *Dallas Morning News*, July 24, 2021. [\[Link\]](#)
173. **M.E. Webber**, A. Dessler and K. Hayhoe, “Here we go again: Texas, climate change and the power grid,” *The Hill*, June 21, 2021. [\[Link\]](#)
172. **M.E. Webber**, “Build First, Explain Second: We can ramp up on deployment of clean energy systems, and then apply what we learn to make the whole system better,” *Mechanical Engineering*, June/July 2021. [\[Link\]](#)
171. **M.E. Webber**, “Energy is all around us, including up above and down below,” *Pour La Science (The French Edition of Scientific American)*, May 2021.
170. **M.E. Webber** and C. Samaras, “COVID, climate change and inter-generational sacrifice,” *The Hill*, May 14, 2021. [\[Link\]](#)
169. **M.E. Webber**, “What to do with natural gas,” *Scientific American*, April 2021. [\[Link\]](#)
168. A. Dayal and **M.E. Webber**, “Texas’ power outages were avoidable. Here’s what we can learn.” DEVEX, April 19, 2021. [\[Link\]](#)

167. **M.E. Webber**, “Hydrogen Straight From The Earth: Tapping locations where the gas bubbles up naturally could change the calculus of clean energy,” *Mechanical Engineering*, April/May 2021. [\[Link\]](#)
166. **M.E. Webber**, “What happened in Texas is only the beginning,” *The Hill*, March 1, 2021. [\[Link\]](#)
165. **M.E. Webber** “Texas’ grid should diversify to reduce interdependencies,” *Austin American-Statesman*, February 24, 2021. [\[Link\]](#)
164. **M.E. Webber**, “Power outages across the Plains: 4 questions answered about weather-driven blackouts,” *The Conversation*, February 16, 2021. [\[Link\]](#)
163. **M.E. Webber**, “How Clean Energy Can Win Over Rural Areas,” *Mechanical Engineering*, February/March 2021. [\[Link\]](#)
162. I. Moretti and **M.E. Webber**, “Natural Hydrogen: A Geological Curiosity or the Primary Energy Source for a Low-Carbon Future?”, *Renewable Matter*, January 8, 2021. [\[Link\]](#)
161. **M.E. Webber**, “When Agriculture Goes Electric,” *Mechanical Engineering*, December 2020/January 2021.
160. **M.E. Webber**, “Trading One Crisis for Another: Could atmospheric carbon harvesting unleash environmental havoc? Only if we don’t heed history,” *Mechanical Engineering*, October 2020.
159. **M.E. Webber**, “Time is Energy: Solving today’s challenges requires juggling past, present, and future across many timescales,” *Mechanical Engineering*, September 2020.
158. **M.E. Webber**, “The Color of Energy: The industry must work to solve its racial disparities,” *Mechanical Engineering*, August 2020. [\[Link\]](#)
157. **M.E. Webber**, “This Pandemic Could Cause A Long-Term Shift in Car Ownership,” Milken Institute’s *Power of Ideas*, July 15, 2020. [\[Link\]](#)
156. **M.E. Webber**, “The Spice Race and the Space Race: When nations pursue ambitious goals, the spin-off technologies can benefit us all,” *Mechanical Engineering*, July 2020.
155. **M.E. Webber**, “The Farm Woman’s Dream, 100 Years Later,” *Mechanical Engineering*, June 29, 2020. [\[Link\]](#)
154. **M.E. Webber**, “Break with the Past: Negative prices and cratering demand: This oil price crash is different. Now what?,” *Mechanical Engineering*, June 2020.
153. **M.E. Webber**, “Invisible Heroes: In modern society, some of the most important people are the hardest to see,” *Mechanical Engineering*, May 2020. [\[Link\]](#)
152. **M.E. Webber**, “Research is necessary to accelerate our transition to a zero-carbon world,” *Pour La Science (The French Edition of Scientific American)*, April 2020.

151. **M.E. Webber**, “Energy and Education in the Midst of a Pandemic,” *Zpryme Perspectives for Everyone*, April 30, 2020. [\[Link\]](#)
150. **M.E. Webber**, “This Earth Day, pandemic offers opportunity to fix our air and water woes,” *Austin American-Statesman*, April 22, 2020. [Also published in the *Caller Times, San Antonio Express-News*, etc.]
149. **M.E. Webber**, “An Invisible Hand Driving Energy Policy: The finance and insurance industry has a major say in how we address mobility and climate issues,” *Mechanical Engineering*, April 2020.
148. **M.E. Webber**, “Turning Around Priorities: We have a few things backward that we should reverse for energy and climate,” *Mechanical Engineering*, March 2020.
147. **M.E. Webber**, “The Oil Industry Is Part of the Solution: Activists want to punish the petroleum industry, but it has the technological chops to tackle climate change,” *Mechanical Engineering*, February 2020.
146. **M.E. Webber**, “We Need More than STEM: The energy sector’s challenges require education in the arts as well as science, math, and technology,” *Mechanical Engineering*, January 2020. [\[Link\]](#)
145. **M.E. Webber**, “The Carbon Dioxide We Dump into the Sky Is Just Another Kind of Garbage,” *Scientific American*, December 2019. [\[Link\]](#)
144. **M.E. Webber**, “Fly More, Not Less: There’s no shame in flying. But we must find ways to reduce aviation’s climate impact,” *Mechanical Engineering*, December 2019.
143. **M.E. Webber**, “Flooding the Zone: Are things too big and broken to fix? The multipronged traffic safety campaign is a model for successfully implementing solutions that work,” *Mechanical Engineering*, November 2019.
142. **M.E. Webber**, “Today’s Decisions, Tomorrow’s Cities: Is building car-centric infrastructure a dead end?,” *Mechanical Engineering*, October 2019.
141. **M.E. Webber**, “Power Shift,” *Texas Monthly*, September 2019.
140. **M.E. Webber**, “Setting the Direction: For women to take a more equal leadership role in the energy industry, policies need to support families,” *Mechanical Engineering*, September 2019.
139. **M.E. Webber**, “Learning How to Beat the Heat: As the world gets hotter, places will need to adapt their infrastructure—and long-held cultural traits,” *Mechanical Engineering*, August 2019.
138. **M.E. Webber**, “Millennials Will Save The World: Their values-driven, can-do spirit is just what we need,” *Mechanical Engineering*, July 2019. [\[Link\]](#)
137. **M.E. Webber**, “Electric Highway,” *Mechanical Engineering*, June 2019.

136. **M.E. Webber**, “It’s Complicated: It’s time we figure out our relationship with nuclear energy,” *Mechanical Engineering*, June 2019.
135. **M.E. Webber**, “Seeing the Future, Piece by Pièce,” *Mechanical Engineering*, May 2019.
134. **M.E. Webber**, “Can We Escape Our Car-Centric World,” *Mechanical Engineering*, April 2019. [\[Link\]](#)
133. **M.E. Webber**, “Yellow Vests and the Climate Crisis,” *Mechanical Engineering*, March 2019.
132. **M.E. Webber**, “Not Just Oil and Gas in Texas,” *Mechanical Engineering*, February 2019. [\[Link\]](#)
131. **M.E. Webber**, “Innovation Should Know No Boundaries,” *Mechanical Engineering*, January 2019.
130. **M.E. Webber**, “The Risky Business of Predicting the Future,” *Mechanical Engineering*, December 2018.
129. **M.E. Webber**, “Learning *Minecraft* as a Forty-Something Proves the Game Can Be A Learning Tool for All Ages,” *Earth Magazine*, December 2018.
128. **M.E. Webber**, “Memorial Day arrives with higher prices at the pump. Good news for Texas, not so good for drivers.”, *Houston Chronicle*, May 25, 2018. [Also published in *Dallas Morning News*, *Waco Tribune Herald*, *The Mcallen Monitor*] [\[Link\]](#)
127. **M.E. Webber**, “Renaissance and Revolution: Nuclear Power’s long-delayed revival is a victim of the rise of shale gas,” *Mechanical Engineering*, April 2018.
126. **M.E. Webber**, “Gun safety can coexist with the Second Amendment — here’s how I know,” CNN, February 21, 2018.
125. **M.E. Webber**, “A New Age of Rail,” *Mechanical Engineering*, February 2018.
124. C.I. Birney, K. Franklin, F.T. Davidson and **M.E. Webber**, “Reducing Your ‘Foodprint’ While Eating Healthier,” Air and Waste Management Association’s (AWMA) *EM Magazine*, December 2017.
123. J.D. Rhodes and **M.E. Webber**, “The Solution to America’s Energy Waste Problem,” *Fortune*, December 18, 2017. [\[Link\]](#)
122. **M.E. Webber** and S.R. Kirshenbaum, “Improving women’s lives through energy: What Rick Perry got right and wrong,” *Salon*, November 8, 2017.
121. F.T. Davidson and **M.E. Webber**, “To Uber or not? Why car ownership may no longer be a good deal,” *The Conversation*, October 15, 2017.
120. F.T. Davidson, K. Nagasawa, and **M.E. Webber**, “Electrofuels,” *Mechanical Engineering*, September 2017.
119. **M.E. Webber**, “A Pitch to Study BREW: The Beer-Renewable Energy-Water Nexus,” *Earth Magazine*, September 2017.

118. F.T. Davidson and **M.E. Webber**, “Harvey Can Help Houston Rethink Its Car Culture” , *Bloomberg View*, September 15, 2017.
117. **M.E. Webber**, “How the Texas energy industry should move forward after Harvey,” *Dallas Morning News*, September 8, 2017.
116. C. Ross and **M.E. Webber**, “Here’s our best advice for new college students,” *Fort Worth Star-Telegram*, August 28, 2017. (Also printed in the *Austin American-Statesman*, *Abilene Reporter* and *McAllen Monitor*)
115. **M.E. Webber**, “Why the withering nuclear power industry threatens U.S. national security,” *The Conversation*, August 10, 2017.
114. **M.E. Webber**, “What the Next Forty Years of the Department of Energy Should Bring,” *Texas Monthly*, August 2, 2017. (Also published in the *Dallas Morning News* and *Austin American-Statesman*.)
113. **M.E. Webber**, “Tapping the Trash,” *Scientific American*, July 2017.
112. **M.E. Webber**, “Building a Maginot Line for Energy?,” *Mechanical Engineering*, July 2017.
111. J.D. Rhodes, **M.E. Webber**, T.A. Deetjen, and F.T. Davidson, “Are solar and wind really killing coal, nuclear and grid reliability?,” *The Conversation*, May 11, 2017.
110. Y.R. Glazer, J.J. Lee, F.T. Davidson and **M.E. Webber**, “Shale Boom Could Fuel Batteries,” *Earth Magazine*, April 2017.
109. **M.E. Webber**, “The future of energy runs through Texas, not Washington,” *Dallas Morning News*, March 28, 2017.
108. A. Lloyd and **M.E. Webber**, “Texas positioned to lead hydrogen revolution,” *Houston Chronicle*, March 19, 2017.
107. **M.E. Webber** and S.R. Kirshenbaum, “Rick Perry Was A Clean Energy Governor,” *Bloomberg View*, December 14, 2016.
106. **M.E. Webber**, “Making Renewables Work”, *Mechanical Engineering*, December 2016.
105. **M.E. Webber**, “The Coal Industry Isn’t Coming Back,” *The New York Times*, November 15, 2016.
104. **M.E. Webber**, “The Water Trade,” *Mechanical Engineering*, November 2016.
103. **M.E. Webber**, “How Dependable is the Traditional Grid?”, *Mechanical Engineering*, October 2016.
102. **M.E. Webber** “Where the Candidates Stand on U.S. Energy Policy Matters a Great Deal to Texas,” *Houston Chronicle*, October 1, 2016.
101. **M.E. Webber**, “Memo to next president: Here’s how to avoid our history of energy policy mistakes,” *The Conversation*, September 19, 2016.

100. **M.E. Webber**, “How cheap gasoline hurts the environment,” *Dallas Morning News*, June 8, 2016. (Reprinted in *Austin American-Statesman* June 9, 2016 and *Waco Tribune* June 10, 2016.)
99. **M.E. Webber**, “New Engineering Thinking for a New Climate,” *Mechanical Engineering*, June 2016.
98. **M.E. Webber**, “What do drugs and oil have in common?,” *Houston Chronicle*, May 9, 2016. (Originally published as “Can the oil and gas boom teach us how to fix drug problems in America?” in *The Conversation*, May 9, 2016.)
97. **M.E. Webber**, “Our Water System: What a Waste,” *The New York Times*, March 22, 2016.
96. **M.E. Webber** and S.R. Kirshenbaum, “How ‘Frankenstein’ Prevents Us From Tackling Climate Change,” *Earth Magazine*, March 2016.
95. **M.E. Webber**, “How America Could Win Even When Oil Prices Crash,” *Fortune*, January 24, 2016.
94. **M.E. Webber**, “Entropy and the Environment,” *Mechanical Engineering*, December 2015.
93. R. Gold and **M.E. Webber**, “Comment: Pipe Dreams: What have we learned from the Volkswagen Clean-Diesel scandal?”, *Earth Magazine*, December 2015.
92. Y.R. Glazer, F.T. Davidson, and **M.E. Webber**, “Flaring Our Way Out of a Water Crisis,” *Earth Magazine*, November 2015.
91. **M.E. Webber**, “Five myths about coal,” *Washington Post* (Sunday Edition), August 7, 2015.
90. F.T. Davidson and **M.E. Webber**, “Racing to the future of automotive efficiency and performance,” *Earth Magazine*, August, 2015.
89. **M.E. Webber**, “Iran deal tricky for the Texas energy industry,” *Fort Worth Star-Telegram*, July 24, 2015.
88. **M.E. Webber**, “What Jeb Bush can learn from Pope Francis about climate change,” *Fortune*, July 1, 2015.
87. **M.E. Webber**, “This U.S. state could win big from the EPA’s clean power plan,” *Fortune*, June 15, 2015.
86. **M.E. Webber**, “Increasing Food Efficiency,” *Mechanical Engineering*, May 2015.
85. S.R. Kirshenbaum and **M.E. Webber**, “Despite rhetoric, climate change ranks low in public’s Keystone pipeline worries,” *The Conversation*, May 26, 2015.
84. **M.E. Webber**, “Why this oil price collapse could be different,” *Fortune*, April 27, 2015.
83. **M.E. Webber**, “Energy industry needs a better approach to communication,” *Houston Chronicle*, March 25, 2015.

82. **M.E. Webber**, "Include agriculture in emissions policy," *Corpus Christi Caller Times*, March 5, 2015.
81. **M.E. Webber**, "Solving Energy, Water and Food," *Scientific American*, February 2015.
80. **M.E. Webber**, "From Love Affair to Open Relationship," *Mechanical Engineering*, February 2015.
79. **M.E. Webber**, "It's time for Republicans to pass carbon tax," *Houston Chronicle*, January 6, 2015.
78. **M.E. Webber**, "Crystal Ball Science: In the Energy Sector, Follow The Money in 2015," *Earth Magazine*, December 2014.
77. K. Hayhoe and **M.E. Webber**, "The Next 60: Cutting Carbon and Reinventing the Economy," *Texas Observer*, December 11, 2014. [\[Link\]](#)
76. **M.E. Webber**, "The risks and rewards of Keystone XL," *Texas Tribune*, November 23, 2014.
75. I. Barchas and **M.E. Webber**, "UT energy experts: A cold war brews between Saudi Arabia and Texas," *Dallas Morning News*, November 6, 2014.
74. **M.E. Webber**, "Wasting an Opportunity," *Mechanical Engineering*, November 2014.
73. M.E. Clayton, J.B. Kjellsson, and **M.E. Webber**, "Wind-Solar-Desalination: How Integrated Systems Can Solve Our Water and Energy Issues," *Earth Magazine*, November 2014.
72. **M.E. Webber**, "The Progression of Progress," *Mechanical Engineering*, July 2014.
71. **M.E. Webber**, "Boomtown," *The Alcalde*, July 2014.
70. **M.E. Webber**, "What's The World To Do About Water?," *Popular Science*, June 2014.
69. **M.E. Webber**, "Better Tools for Energy Literacy," *Mechanical Engineering*, April 2014.
68. I. Barchas, M. Jacobson, and **M.E. Webber**, "The Cost of Water vs. The Cost of Energy: Which is Getting Much Cheaper & Which is Getting More Expensive?," *Texas CEO Magazine*, March/April 2014.
67. **M.E. Webber**, "The Ocean Under Our Feet," *Mechanical Engineering*, January 2014.
66. **M.E. Webber**, "How to Overhaul the Gas Tax," *The New York Times*, December 24, 2013.
65. **M.E. Webber**, "World War G: Zombies, energy and the geosciences," *Earth Magazine*, December 2013.
64. S.R. Kirshenbaum and **M.E. Webber**, "Liberation Power: What do women need? Better energy," *Slate*, November 4, 2013.
63. **M.E. Webber**, "Lessons From The Shale Revolution," *Mechanical Engineering*, October 2013.

62. **M.E. Webber**, “Fracking: The Whole Truth,” *Oil Magazine: Water and Oil*, Number 23, September 2013.
61. J.D. Rhodes, T.F. Edgar, R.D. Duncan and **M.E. Webber**, “The Unattractive Side of the Smart Grid,” *Global Energy Affairs*, September 2013.
60. E.A. Grubert, C.W. King and **M.E. Webber**, “Maui’s Complicated Relationship With Water,” *Earth Magazine*, August 2013.
59. K.T. Sanders and **M.E. Webber**, “The Energy-Water Nexus: Managing Water in an Energy Constrained World,” *Earth Magazine*, July 2013.
58. **M.E. Webber**, “Energy Tech That’s Made in America,” *Mechanical Engineering*, April 2013.
57. P. Schmandt, **M.E. Webber**, S. Smaha, L. Shaw and B. Bernfield, “Electric Utility commissioners: Austin Energy needs fixing,” *Austin American-Statesman*, March 24, 2013.
56. **M.E. Webber**, R.D. Duncan, and M.S. Gonzalez, “Four Fuels and Four Technologies: A Cautionary Tale About the Slow Pace of Energy Innovation,” *Issues in Science and Technology*, Winter 2013.
55. K.T. Sanders and **M.E. Webber**, “Quantifying the energy embedded in the US water system,” *Global Water Forum*, UNESCO, January 8, 2013.
54. **M.E. Webber**, “Moving Beyond Gridlock to Solve Our Energy Problems,” *Mechanical Engineering*, January 2013.
53. **M.E. Webber**, “The Bright Future for Natural Gas in the United States,” *Earth Magazine*, December 2012.
52. **M.E. Webber**, “Pricing Out Natural Gas: Given its complex relationships, can natural gas really be the fuel of the near future?,” *Earth Magazine*, December 2012.
51. **M.E. Webber**, “Garbage Could Be Sustainable Energy Source,” *Roll Call*, September 12, 2012.
50. A.C. Breckel, J.R. Fyffe, and **M.E. Webber**, “Trash to Treasure,” *Earth Magazine*, August, 2012.
49. **M.E. Webber**, “Will Drought Cause the Next Blackout?,” *The New York Times*, July 23, 2012.
48. M. Strama and **M.E. Webber**, “Praying for rain not a water plan,” *Austin American-Statesman*, May 20, 2012.
47. S.R. Kirshenbaum and **M.E. Webber**, “The Giving Sea,” *Earth Magazine*, April 2012.
46. S.R. Kirshenbaum and **M.E. Webber**, “Time For Another Giant Leap For Mankind,” *Issues in Science and Technology*, Spring 2012.

45. K.M. Twomey, C.M. Beal, C.W. King, and **M.E. Webber**, "Biofuels: An Energy and Water Conundrum," *World Energy Monitor*, Volume 3, Number 3, March 2012.
44. **M.E. Webber** and S.R. Kirshenbaum, "It's Time to Shine the Spotlight on Energy Education," *The Chronicle of Higher Education*, January 22, 2012.
43. **M.E. Webber**, "More Food, Less Energy," *Scientific American*, January 2012.
42. C.M. Kennedy and **M.E. Webber**, "Where the Rubber Meets the Road: Lessons Learned From Taking a Natural Gas Vehicle for a Cross-Country Tour," *Earth Magazine*, November 2011.
41. **M.E. Webber**, "Obama Deserves Credit for Strong Growth in Energy Industry," *Houston Chronicle*, October 28, 2011.
40. S.R. Kirshenbaum and **M.E. Webber**, "Degree courses: Energy should form its own discipline," *Nature*, October 6, 2011.
39. **M.E. Webber**, "Let's back a clean version of Keystone XL pipeline," *Houston Chronicle*, October 5, 2011.
38. **M.E. Webber**, "Both energy security, environment important in Keystone pipeline debate," *Austin American-Statesman*, October 3, 2011.
37. S.R. Kirshenbaum and **M.E. Webber**, "Texas Must Stay True to Science," *Austin American-Statesman*, May 8, 2011.
36. F.C. Beach and **M.E. Webber**, "How Oil and Water Helped Win World War II," *Earth Magazine*, March 2011.
35. **M.E. Webber**, "A Dirty Secret—China's Greatest Import: Carbon Emissions," *Earth Magazine*, January 2011.
34. S.R. Kirshenbaum and **M.E. Webber**, "A Tale of Two States: Offshore Wind in Texas and The Curious Case of Massachusetts," *Earth Magazine*, December 2010.
33. **M.E. Webber** and S.R. Kirshenbaum, "Energy and Immigration," *Boston Globe*, November 26, 2010.
32. **M.E. Webber** and D. Kammen, "The obsolescence of oil," *Scientific American*, September 2010.
31. S.R. Kirshenbaum and **M.E. Webber**, "Waste not, want less," *New Scientist*, August 14, 2010.
30. P. Powers and **M.E. Webber**, "Austin Energy should be hub of burgeoning global clean energy economy," *Austin American-Statesman* July 15, 2010.
29. G. Groves and **M.E. Webber**, "Greening the GDP," *Earth Magazine*, April 2010.
28. **M.E. Webber**, "Solar on the horizon," *Austin American-Statesman*, March 21, 2010.

27. **M.E. Webber**, "Redefining Humanity Through Energy Use," *Earth Magazine*, March 2010.
26. P. Schmandt, C. Herbert and **M.E. Webber**, "Why the Proposed Generation Plan is the Right Path Forward for Austin," *Austin American-Statesman*, February 10, 2010.
25. C.W. King and **M.E. Webber**, "Water versus Energy: How Solar Power Can Help," *Solar Today* (January/February 2010).
24. **M.E. Webber**, "A Fool's Look Into the Future," *Earth Magazine*, December 2009.
23. **M.E. Webber**, "Breaking the Energy Barrier," *Earth Magazine*, September 2009.
22. **M.E. Webber**, "Don't Dumb Down Texas," *Austin American-Statesman*, Sept 15, 2009.
21. **M.E. Webber**, "Three cheers for peak oil," *Earth Magazine*, June 2009.
20. **M.E. Webber**, "Green Star State," *Texas Monthly*, May 2009.
19. **M.E. Webber**, "Coal-to-liquids: The Good, Bad & Ugly," *Earth Magazine*, April 2009.
18. A.R. Broadfoot and **M.E. Webber**, "Oil Barrel Politics," *Earth Magazine*, January 2009.
17. **M.E. Webber**, "More energy research and development needed," *Austin American-Statesman*, November 2, 2008.
16. L. Bartlett and **M.E. Webber**, "The Thirsty Dragon And The Wealthy Bear: How China, Russia and High Oil Prices Influence Global Dynamics (Part 2)", *Earth Magazine*, November 2008.
15. L. Bartlett and **M.E. Webber**, "The Thirsty Dragon And The Wealthy Bear: How China, Russia And High Oil Prices Threaten To Erode U.S. Foreign Influence (Part 1)", *Earth Magazine*, October 2008.
14. **M.E. Webber**, "Catch-22: Water vs. Energy," *Scientific American*, October 22, 2008.
13. **M.E. Webber**, "Conflict between Russia and Georgia adds new twist to the energy war," *Austin American-Statesman*, 17 Aug 2008.
12. B.A. Eisterhold and **M.E. Webber**, "Resource Nationalization: A Smaller Piece of the Pie," *Geotimes*, May 2008.
11. C.W. King, A.S. Holman, and **M.E. Webber**, "Thirst for Energy," *Nature Geoscience*, May 2008.
10. **M.E. Webber**, "When it comes to energy policy, beggars can't be choosers," *Austin American-Statesman*, May 28, 2008.
9. B.A. Eisterhold and **M.E. Webber**, "Oil: Is Now the Time to Fill the Strategic Petroleum Reserve?" *Geotimes*, March 2008.
8. **M.E. Webber**, "Texas has what it takes to combat climate change," *Austin American-Statesman*, October 26, 2007.

7. **M.E. Webber**, “Don’t blame China for high energy prices,” *Geotimes*, September 10, 2007.
6. **M.E. Webber**, “If Texas leads in going green, rest of world will follow,” *Houston Chronicle*, Sunday Edition, August 19, 2007.
5. **M.E. Webber**, “China and the Oil Syndrome,” *Fort Worth Star-Telegram*, June 26, 2007.
4. **M.E. Webber**, “Webber: The U.S. lacks direction in climate change fight,” *Austin American-Statesman*, June 6, 2007.
3. **M.E. Webber**, “Scare tactics clouding Texas debate on coal: Campaigns on both sides appeal to our basest fears,” *Houston Chronicle*, Sunday Edition, February 11, 2007.
2. **M.E. Webber**, “Conservation can be America’s oil weapon,” *San Antonio Express-News*, January 11, 2007.
1. **M.E. Webber**, “We have a new opportunity for sensible energy policy: Here’s how Republicans and Democrats can come together, *Dallas Morning News*, November 27, 2006.

Select Technical Reports and White Papers

Some of these technical reports and white papers are available through a dedicated and permanent online collection within *Texas ScholarWorks*, which is hosted by the University of Texas Libraries and “was established to provide open, online access to the products of the University’s research and scholarship, to preserve these works for future generations, to promote new models of scholarly communication, and to help deepen community understanding of the value of higher education.”

Webber Energy Group archive at *Texas ScholarWorks*: <https://hdl.handle.net/2152/129566>

25. B. Kellison, M. Kammer-Kerwick, J. Jarrett, B. Lewandowski, R. Kasten, J.D. Rhodes, **M.E. Webber**, B. Bloom and J. Edgar, “Economic Impacts of Texas Small Modular Reactor Industry Development, 2024–2055: Initial Analysis Report,” Prepared for the Public Utility Commission of Texas by the Bureau of Business Research, IC² Institute, The University of Texas at Austin, October 2024. [\[LINK\]](#)
24. E. Arnim, Y.R. Glazer, and **M.E. Webber**, “Considerations for the Austin Energy Resource, Generation, and Climate Protection Plan to 2035,” October 2024. [\[https://doi.org/10.26153/tsw/56517\]](https://doi.org/10.26153/tsw/56517)
23. I. Peterson, E.A. Beagle and **M.E. Webber**, “Texas State Energy Conservation Plan,” prepared for the Texas State Energy Conservation Office (SECO), June 2024.
22. L. Rivera Gomez, E.A. Beagle, M. Lewis, and **M.E. Webber**, “Determining Life Cycle Emissions of Hydrogen Production Using the 45VH2-GREET Model for the 45V Hydrogen Production Tax Credit,” H2@UT, August 2024. [\[LINK\]](#)
21. S.C. Reynolds, Y.R. Glazer, K. Oikonomou, J.S. Homer, and **M.E. Webber**, “A Review of Resilience and Long-Term Planning in Power and Water Systems in the United States. United States, OSTI ID: 2429258, Report Number: PNNL-36180, 1 August 2024. [\[https://doi.org/10.2172/2429258\]](https://doi.org/10.2172/2429258)
20. E.A. Beagle, J. Gawlick, W. Wade, A. Nisman, J.D. Rhodes, M. Lewis, **M.E. Webber** and R.E. Hebner, “Texas’ Role in the Future Global Demand for Hydrogen,” H2@UT, 2023. [\[LINK\]](#)
19. J. Beard, B. Jones, D. Cohan, B. Dindoruk, S. Kapusta, T. Lines, S. Livescu, R. Schulz, B. Sebree, J. Tackett, **M.E. Webber**, K. Wisian, M. Young, “The Future of Geothermal in Texas: The Coming Century of Growth & Prosperity in the Lone Star State,” The University of Texas at Austin, January 2023. [\[https://doi.org/10.26153/tsw/44084\]](https://doi.org/10.26153/tsw/44084)
18. J.D. Rhodes, M. Skiles, E.A. Beagle, D. A. Kassel, J. Shih, **M.E. Webber**, M.A. Cook, D. Nabologa, G. Dillingham, L. Liu, and F. Ganji, “Energy Efficiency & Resilience in Extreme Weather Events,” August 2022. [\[https://www.me.utexas.edu/news/1683-energy-efficiency-resilience-in-extreme-weather-events\]](https://www.me.utexas.edu/news/1683-energy-efficiency-resilience-in-extreme-weather-events)
17. I.M. Gee, Y.R. Glazer, J.D. Rhodes, T.A. Deetjen, **M.E. Webber**, A. Choukulkar, B. Cote, C. Clack, and B. Lewandowski, “Don’t Mess With Texas: Getting the Lone Star State to Net-Zero by 2050,” April 2022. [\[https://cockrell.utexas.edu/tx-net-zero-2050\]](https://cockrell.utexas.edu/tx-net-zero-2050)

16. J. Coleman, S. Bragg-Sitton, E. Dufek, S.C. Johnson, J.D. Rhodes, F.T. Davidson, and **M.E. Webber**, “An Evaluation of Energy Storage Options for Nuclear Power,” INL/EXT-17-42420, Prepared with the Idaho National Laboratory for the U.S. Department of Energy Office of Nuclear Energy Under DOE Idaho Operations Office Contract DE-AC07-05ID14517, June 2017.
15. F.C. Beach, Joseph Casola, Meg Crawford, Daniel Huber, Janet Peace, Michael Tubman, Doug Vine and **M.E. Webber**, “Leveraging Natural Gas to Reduce Greenhouse Gas Emissions,” C2ES (Center for Climate and Energy Solutions), Washington, DC, June 2013.
14. F.C. Beach, J.D. Rhodes, K.T. Sanders, **M.E. Webber**, “An Analysis of the Potential for Expanded Use of Natural Gas in the U.S. Residential Sector,” UT Austin, March 18, 2013.
13. J.R. Fyffe, A.C. Breckel, A.K. Townsend and **M.E. Webber**, “Residue-Derived Solid Recovered Fuel for Use in Cement Kilns: Final Report,” The University of Texas at Austin, Austin, TX, July 2012.
12. F.C. Beach, M.S. Gonzalez, J.C. Butler, **M.E. Webber**, “An Analysis of the Potential for Expanded Use of Natural Gas in Electrical Power Generation, Transportation, and Direct Use: Texas as a Case Study,” UT Austin, March 17, 2012.
11. C.W. King, K.M. Twomey, A.S. Stillwell, and **M.E. Webber**, “Clean Energy and Water: Assessment of Mexico for improved water services with renewable energy,” Prepared for the International Development Research Centre, Ottawa, Ontario, Canada, December 2011.
10. C.W. King, A.S. Stillwell, K.M. Twomey, and **M.E. Webber**, “Coherence between water and energy policies,” Prepared for the OECD, Paris, France December 2010.
9. C.F. Murphy, M.J. O’Donnell, E. McDonald-Buller, S. Strank, M.H-P. Liu, **M.E. Webber**, D.T. Allen, and R.E. Hebner, “Analysis of Innovative Feedstock Sources and Production Technologies for Renewable Fuels,” EPA Project Number XA-83379501-0, 2010.
8. J.B. Garrison, C.R. Upshaw, and **M.E. Webber**, “Review of ‘The Preliminary Feasibility Study of Hydrogen Hubs’ authored by the Northwest Hydrogen Alliance,” April 2010.
7. M.C. Lott, A.S. Stillwell, S.M. Cohen, C.W. King, **M.E. Webber**, “Power Generation for the 21st Century,” Clean TX Forum, Austin, TX, May 20, 2009
6. “Energy Depletion Risks Task Force Report,” City of Austin, May 15, 2009.
5. D.M. Wogan, A.K. da Silva, **M.E. Webber**, and E. Stautberg, “Algae: Pond Powered Biofuels,” Clean TX Forum, Austin, TX, November 19, 2008.
4. C.W. King, I.J. Duncan and **M.E. Webber**, “Water Demand Projections for Power Generation in Texas,” prepared for the Texas Water Development Board, August 31, 2008.
3. **M.E. Webber**, D.T. Allen, K. Ferland, C.W. King, G. McGaughey, S.J. Goldman and Y. Kimura, “A Clean Energy Plan for Texas,” prepared for the Texas Commission on Environmental Quality, August 31, 2008.

2. C. Telenko, M. Nippert, C.C. Seepersad and **M.E. Webber**, “Symposium on Sustainable Design — Greening the Technology Industry,” March 2008.
1. A.R. Broadfoot, A.D. Cuellar, M.J. O’Donnell, C.H. Smith, and **M.E. Webber**, “Next Generation Biofuels - Trends In Global Innovation and Finance: The Tools of Biotechnology Meet the World’s Energy Challenge,” October 2007.

Patents

6. Optimally Placing Photovoltaic Arrays To Maximize Value Of Energy Production Based On Peak Power Production, Local Solar Radiation, Weather, Electricity Market Prices And Rate Structures, #10,255,393 (2019) (J.D. Rhodes, C.R. Upshaw, and **M.E. Webber**)
5. Reducing Peak Electrical Demand By Air Conditioning Systems And Reducing Water Consumption By Implementing An Integrated Thermal Energy And Rainwater Storage System, #9,989,270 (2018) (C.R. Upshaw, J.D. Rhodes, and **M.E. Webber**)
4. System and Method for High Sensitivity Optical Detection of Gases, #7,502,115 (2009)
3. Method of Analyzing Components of Alveolar Breath, #7,473,229 (2009)
2. Amplifier-Enhanced Optical Analysis System and Method, #7,064,329 (2006)
1. Gas Sensor for Ammonia, Carbon Dioxide and Water, Patent #6,787,776 (2004)

Entrepreneurship Experience

Entrepreneurial Ventures

From August 2021 to September 2024, Webber was CTO of Energy Impact Partners, a cleantech venture fund based in New York, NY with \$5 billion of assets under management dedicated for investments in the energy transition. In addition he is a founding partner or advisor of the following start-ups, which were founded by members of his research group at UT Austin or students in his classes:

- Founding Partner, IdeaSmiths LLC, Founded 2013 (clients such as BP, Dell, GE, 3M, etc.)
- Advisor, ResilientGrid, founded by former PhD student Michael Legatt, 2016–present
- Advisor, RePower Holdings, Founded by former student Chad Blevins in 2021 (acquired in 2023)
- Advisor and Investor, Low Carbon Beef and Beal Cattle Co., founded by former PhD student Colin Beal in 2016 (acquired in 2022)
- Co-Founder, DISCO Learning Media, Inc, Founded 2015 (acquired in 2018)
- Co-Founder, UVC UltraClean (equipment & services for COVID disinfection), Founded 2020, Disbanded 2021.

Teaching

Webber was part of the team that created and teaches a graduate course titled ENERGY VENTURES together with the Energy Institute, McCombs School, MIT and Greentown Labs. That course includes 25–30 graduate students from the Law School, LBJ School of Public Affairs, and the schools of business, engineering and geosciences. During the semester, the students form multidisciplinary teams to launch a business and develop its core offering, marketing plan, go-to-market strategy, and financial models. Webber also co-created a course ENTREPRENEURSHIP in 2015 and has taught it almost yearly through 2023. This multidisciplinary freshman signature course is offered in seminar style, with 18–30 students, and introduces students to the concepts of entrepreneurship while giving them the skills to create their own company. This course includes guest lectures from dozens of entrepreneurs and will give the students a chance to actually create a company. Assignments include creating a pitch deck for their company and analyzing whether an investor should participate in the buy-side of an IPO (Initial Public Offering).

Administrative

Webber served as co-director of UT Austin's Clean Energy Incubator (CEI) from 2009 through 2018. Founded in 2001, CEI is one of the longest-established energy and cleantech incubators in the United States. CEI is part of the Austin Technology Incubator, which is the startup incubator at UT Austin. A program of the University's IC² Institute, ATI has a 30-year track record of helping founding teams achieve success. ATI focuses on helping startups compete successfully in the capital markets to get funded. Both ATI and CEI have won national recognition for excellence in incubation in academic settings.

Global Experience

International Residency:

- Paris, France (2018–2021)
- Paris, France (1986)
- Lausanne, Switzerland (1983)

Global Teaching and Fellowships:

- Fulbright Technical Specialist, U.S. State Department, Bureau of Educational and Cultural Affairs and World Learning (December 2024–December 2027)
 - Zurich University of Applied Sciences, Winterthur, Switzerland (2025)
- Dozens of invited keynotes, plenary lectures and presentations in more than 20 different countries on (2007–present)
- Rockefeller Foundation’s Writer’s Residency Program, Bellagio, Italy (2022)
- Instructor for UT Study Abroad
 - “Global Energy Policy & Communication,” Paris, France (Summer 2017)
- Instructor for ExxonMobil managers, “Power Commercial Capabilities” (2014–2018)
 - Leatherhead, England
 - Singapore
- Senior Fellow, Energy and Climate Partnership of the Americas, Science & Technology Adviser’s Office, U.S. State Department (1 of 5 people selected nationally) (2011–2013)
 - Costa Rica
- Marshall Memorial Fellow, German Marshall Fund (2007)
 - Brussels, Belgium
 - Copenhagen, Denmark
 - Belgrade, Serbia
 - Athens, Greece
 - Paris, France

Advisory, Consulting and Industrial Collaborations

Corporate Advisory Positions and Professional Affiliations:

- Scientific Advisory Council, ENGIE, Paris, France (2021–present)
- Sustainability Council, Crescent Energy, Houston, TX, USA (2021–present)
- Board of Directors, GTI Energy (formerly known as Gas Technology Institute) (2019–present)
- Distinguished Associate, Energy Futures Initiative (founded by former Secretary of Energy Ernest Moniz) (2017–present)
- Founding Partner, IdeaSmiths LLC (an engineering consultancy), July 2013–present
- Board of Directors, Goodnight Midstream (midstream water solutions company) (2019–2023)
- Member, Electric Utility Commission, Austin Energy, City of Austin (2008–2013)
- Member, AT&T Sustainability Advisory Council (2009–2012)

Webber has conducted independent consulting projects for the following entities:

- UNESCO, United Nations, Colombella, Perugia, Italy
- International Research and Development Centre, Ottawa, Canada
- Power Across Texas, Austin, Texas
- Organization for Economic Cooperation and Development (OECD), Paris, France
- Northwest Hydrogen Alliance, Seattle, Washington
- ExxonMobil Corporate Strategic Research, Clinton, NJ
- Tikkun Investing, Chattanooga, TN
- Ferrazzi Greenlight, Los Angeles, CA

In addition, Webber has taught short-courses for the following companies and organizations through executive education programs at the University of Texas at Austin or in-house:

- WalMart, USA
- GE Vernova, USA and France
- Bank of Montréal, Canada
- ExxonMobil, USA, England and Singapore
- Petrobras, Brazil
- CNOOC, China
- Sinopec, China
- Tailwater Capital, USA

Service to the Profession

Professional, Industrial and Governmental Committee Participation:

- National Academy Committees
 - Member, Roundtable on Science and Technology for Sustainability, The National Academies (2012–2018)
 - Member, Committee on Transitions to Alternative Vehicles and Fuels, National Research Council, National Academies of Sciences & Engineering (2011–2012)
- Editorial Positions
 - Editorial Board, *Progress in Energy*, Institute of Physics (2018–present)
 - Editorial Board, *Environmental Research Letters*, Institute of Physics (2008–2020)
 - Editor in Chief, *Current Sustainable/Renewable Energy Reports*, Springer (2013–2018)
 - Board of Advisers, *Scientific American* (2009–2018)
 - Contributing Editor, *Earth Magazine* (2007–2018)
- Conference Organizing, Non-Profit Board Positions and Other Committees
 - Founding Co-Host & Co-Organizer, HEX@TEX (Hydrogen Emissions eXchange at the University of Texas at Austin), An annual international conference and workshop on emissions from hydrogen supply chains (with GTI Energy) (2024–present).
 - Member, Independent Expert Panel, Open Hydrogen Initiative (2023–present).
 - Member, Technical Review Panel, Energy Systems Integration Division, National Renewable Energy Lab (2021–present)
 - Board Member, Sustainable America (2013–present)
 - Board Member, Pecan Street Inc. (2018–2022)
 - Board Member, Engineering One Planet (2020–2022)
 - Board Member, Houston Advanced Research Center (HARC) (2013–2018)
 - Board of Advisors, Fuel Freedom Foundation (2014–2018)
 - Judge, Platt's Energy Industry Awards (2010–2011, 2013)
 - Vice-Chair, Energy-Water Nexus Interdisciplinary Council, American Society of Mechanical Engineers (ASME) (2010–2013)
 - Founding Board Member, CleanTX Foundation, Austin, Texas (2008–2012)
 - Scientific Advisory Committee, Energy & Water in a Warming World, Union of Concerned Scientists (2011–2013)
 - Steering Committee Member, Power Across Texas, a 501(c)3 non-profit (2007–2012)
 - Executive Committee, Clean Energy Venture Summit (2008–2011), Austin, Texas
 - Member of the Renewable & Sustainable Energy Team with the Texas Workforce Commission as a part of Gov. Perry's Industry Cluster Initiative (2006–2007)
 - Board Member, Hope Street Group, a national 501(c)3 non-profit (2004–2006)

Honors, Awards, and Fellowships

Individual Awards and Recognition

32. Sid Richardson Chair in Public Affairs, UT Austin (2024–present)
31. Cockrell Family Chair #16 in Engineering, UT Austin (2025–present)
30. Fulbright Technical Specialist, U.S. State Department, Bureau of Educational and Cultural Affairs and World Leaning (December 2024–December 2027)
 - Zurich University of Applied Sciences, Winterthur, Switzerland (Summer 2025)
29. Billy Carr Distinguished Teaching Fellowship, Environmental Science Institute, The University of Texas at Austin (September 2025–August 2026)
28. “Energy Education & Innovation Award,” CleanTX 40th Anniversary Awards, September 22, 2025
27. John J. McKetta Centennial Energy Chair in Engineering, UT Austin (2023–2025)
26. Energy Thought Leader: Higher Education, 2024 American Energy Society Energy Awards (2024). [\[Link\]](#)
25. Gold Telly Award, Television — Education & Discovery, *Power Trip: The Story of Energy (Season 2)* (2024) [\[Link\]](#)
24. Silver Telly Award, Television — Documentary, *Power Trip: The Story of Energy (Season 2)* (2024) [\[Link\]](#)
23. Silver Telly Award, Television — Science & Technology, *Power Trip: The Story of Energy (Season 2)* “Space” Episode (2024) [\[Link\]](#)
22. Selected for the Rockefeller Foundation’s Writer’s Residency Program, Bellagio, Italy (2022) [\[Link\]](#)
21. Silver Telly Award, Series — Television, *Power Trip: The Story of Energy (Season 1)* (2021) [\[Link\]](#)
20. Silver Telly Award, General — Non-Broadcast, *Thirst for Power* (2021) [\[Link\]](#)
19. Selected as a member of the 4th class of the Presidential Leadership Scholars, which is a leadership training program organized by Presidents George W. Bush and William J. Clinton (2018) [\[Link\]](#)
18. Honorary Mechanical Engineer Award, Mechanical Engineering Academy of Distinguished Alumni, UT Austin (2018)
17. Hamilton Book Award, Runner Up, for THIRST FOR POWER: ENERGY, WATER AND HUMAN SURVIVAL (2017)
16. Josey Centennial Professor in Energy Resources, UT Austin (2016–2023)

15. Josey Centennial Fellowship in Energy Resources, UT Austin (2012–2016)
14. Frank Kreith Energy Award, American Society of Mechanical Engineers (2015)
13. Fellow of ASME (American Society of Mechanical Engineers) (2014)
12. Bronze Telly Award, TV Programs, Segments, or Promotional Pieces — Education, for PBS television special *Energy at the Movies* (2014)
11. “Best of Austin” (*Best Way to Plug In Without Frying Your Brain*), *Austin Chronicle* (2014)
10. Harrington Fellowship, UT Austin (2014).
9. Inaugural recipient of the *John S. Butler Distinguished Alumni Award*, Austin Technology Incubator, UT Austin (2014).
8. Senior Fellow, Energy and Climate Partnership of the Americas, Science & Technology Adviser’s Office, US State Department (2011–2013) (1 of 5 people selected nationally)
7. Environmental Forum Scholar, Aspen Institute (2010)
6. APEX Award for Publication Excellence in the Green Writing category (2010)
5. Finalist, White House Fellowship (2009)
4. AT&T Industrial Ecology Fellow (2009)
3. Marshall Memorial Fellow, German Marshall Fund (2007)
2. Outstanding Young Engineering Graduate, UT-Austin (2005)
1. National Science Foundation Graduate Research Fellowship (1995–1998)

Teaching Awards

6. Member, Academy of Distinguished Teachers, The University of Texas System (2014–present)
5. Provost Teaching “Senior” Fellow, The University of Texas at Austin (2015–2016)
4. Signature Course Essential Elements Award for Excellence in Teaching Interdisciplinary Approaches, School of Undergraduate Studies, UT Austin (2014).
3. Regents’ Outstanding Teaching Award, UT System (2011–2012)
2. Cockrell School of Engineering Award, Outstanding Teaching by an Asst. Prof. (2011–2012)
1. Dad’s Association Centennial Teaching Fellowship, UT Austin (2010–2011)

Paper Awards and Recognition

6. Exceptional Plan II Thesis Award (for Will Gorman’s undergraduate thesis at UT Austin) (2014).

5. American Water Works Association's (AWWA's) Second Place Academic Achievement Award for the best Master's Thesis (for supervising Ashlynn Stillwell's EWRE thesis) (2011)
4. Honorable Mention, *Transformative Research Along Multi-Disciplinary Boundaries* poster session, ASME 2011 International Mechanical Engineering Congress & Exposition (2011) (Garrison & Webber, "A Dynamic Model of an Energy Storage Scheme for Solar & Wind")
3. Best Student Paper Award, ASME 4th International Conference on Energy Sustainability (2010) (Twomey & Webber, "The Cost of Food in a Carbon Constrained Economy")
2. Best Student Paper Award, ASME 2nd International Conference on Energy Sustainability (2008) (Smith, *et al.*, "Conversion of Wet Ethanol to Syngas and Hydrogen")
1. Outstanding Paper Award for the best paper of the year (measurement science category) in *Measurement Science & Technology* (2005) (Webber, *et al.*, "Agricultural ammonia sensor using diode lasers and photoacoustic spectroscopy")

Government Testimony and Briefings

Testimony by Dr. Webber for U.S. Congress

5. "The Energy Water Nexus: Drier Watts and Cheaper Drops," **M.E. Webber**, U.S. House of Representatives Committee on Science, Space and Technology (Energy Sub-committee), March 7, 2019.
4. "How Climate Change Affects Texas," **M.E. Webber**, U.S. House of Representatives Committee on Science, Space, and Technology, Field Hearing, Dallas, TX, March 31, 2014.
3. "Effect of Drought on the Energy Sector," **M.E. Webber**, Senate Energy & Natural Resources Committee Hearing, U.S. Congress, April 25, 2013.
2. "Trends and Policy Issues For The Nexus of Energy and Water," **M.E. Webber**, Senate Energy & Natural Resources Committee Hearing, U.S. Congress, March 31, 2011.
1. "Trends and Policy Issues For The Nexus of Energy and Water," **M.E. Webber**, Senate Energy & Natural Resources Committee Hearing, U.S. Congress, March 10, 2009.

Briefings by Dr. Webber for U.S. Congress and Federal Agencies

15. "Hydrogen101," **M.E. Webber**, U.S. Department of State, June 3, 2021.
14. "Global Energy Trends and Transition," **M.E. Webber**, U.S. Department of State executive short course, September 17, 2018.
13. "Introduction to Renewable Energy," **M.E. Webber**, U.S. Department of State executive short course, September 11, 2017.
12. "The Full Cost of Electricity," **M.E. Webber** and C.W. King, Senator Cornyn's field office with other members of the Texas delegation, Austin, TX, May 12, 2017.
11. "Thirst for Power: Energy, Water and Human Survival," **M.E. Webber**, Aspen Institute Congressional Breakfast Briefing, Washington, DC, April 28, 2016.
10. "Global Energy Trends," **M.E. Webber**, U.S. Department of State Foreign Correspondents Visit, Austin, TX, April 7, 2014.
9. "Challenges and Opportunities at the Energy-Water Nexus," **M.E. Webber**, U.S. Department of Energy, Office of Fossil Energy, Washington, DC, December 12, 2013.
8. "Challenges and Opportunities at the Energy-Water Nexus," **M.E. Webber**, U.S. Department of Energy, Office of Energy Policy and Systems Analysis, Washington, DC, November 8, 2013.
7. "An Energy-Water Nexus Research Agenda," **M.E. Webber**, Opening Remarks for a Workshop on Developing a Research Agenda for the Energy Water Nexus, National Science Foundation, Arlington, VA, June 10, 2013.

6. "Energy Water Nexus," U.S. Department of Energy, Washington, DC, Office of Policy and International Affairs, November 13, 2012.
5. "From Chemistry to Energy," **M.E. Webber**, American Chemistry Council Briefing for Congress, Washington, DC, June 28, 2012.
4. "The Nexus of Energy and Water," Congressional Briefing, House Science and Technology Committee, Washington, DC, December 16, 2009.
3. "The Nexus of Energy and Water," **M.E. Webber**, ACS Briefings for Congress (House Science and Technology Committee), Washington, DC, December 8, 2009.
2. "Trends and Policy Issues For The Nexus of Energy and Water," **M.E. Webber**, Senate Energy & Natural Resources Committee staffer briefing, U.S. Congress, March 6, 2009.
1. "Energy & National Security," **M.E. Webber**, Asst. to the Secretary of Defense, June 2006.

Testimony by Dr. Webber for Texas Legislature

9. "One Year Later: Winter Storm Uri," **M.E. Webber**, Committee Hearing, Texas House of Representatives, February 15, 2022.
8. "Integrating Renewables for Brackish Groundwater Desalination," **M.E. Webber**, Committee on Agriculture, Water & Rural Affairs, Texas Senate, April 13, 2015.
7. "The Role of Massive Open Online Courses (MOOCs) In Higher Education," **M.E. Webber**, Committee on Higher Education, Texas House of Representatives, September 9, 2014.
6. "Some Thoughts On Texas' Economic Impacts From Drought and Economic Opportunities In A Carbon-Constrained World," **M.E. Webber**, Committee on International Trade and Intergovernmental Affairs, Texas House of Representatives, April 22, 2013.
5. "Drought Impacts on Electricity Generation in Texas: Challenges and Opportunities," **M.E. Webber**, Senate Business & Commerce Committee Hearing, Texas Senate, January 10, 2012.
4. "The Good News and Bad News about Electric Vehicles in Texas," **M.E. Webber**, Business and Commerce Committee, Texas Senate, August 24, 2010
3. "The Impacts of Carbon Legislation on Texas," **M.E. Webber**, Carbon Summit (A Joint Hearing of the Public Utilities Commission, Railroad Commission, and Commission on Environmental Quality), Texas State Capitol, September 22, 2009.
2. "High Performance Buildings," **M.E. Webber**, Senate Committee on Government Organization, Texas Legislature, Austin, TX, April 24, 2008.
1. "The Nexus of Energy and Water in Texas," **M.E. Webber**, Joint Interim Hearing Senate Committee on Business and Commerce and Senate Committee on Natural Resources, Texas Legislature, April 15, 2008.

Testimony by Dr. Webber's Staff and Students for State and Local Government

5. "Some Comments on Using Renewable Power to Desalinate Brackish Groundwater on State Lands," F.T. Davidson, Committee on Agriculture, Water & Rural Affairs, Texas Senate, April 24, 2017.
4. "The Energy-Water Nexus in Texas," Dr. Carey King, House Natural Resources Committee Hearing, Texas Legislature, June 28, 2012.
3. "The Energy-Water Nexus," Ashlynn Stillwell, Senate Natural Resources Committee Hearing, Texas Legislature, September 30, 2008.
2. "Water and Nuclear Power," Ashlynn (Holman) Stillwell, Brazos River Authority Public Meeting, June 4, 2008.
1. "An Assessment and Comparison of Installed Solar and Wind Capacity in Texas: A Regional Case Study," Erin Keys, Senate Committee on Government Organization, Texas Legislature, Austin, TX, April 24, 2008.

Briefings by Dr. Webber for State and Local Government

10. "Water Policy in Texas," Texas Senate Committee on Agriculture, Water & Rural Affairs, Austin, TX, September 10, 2018.
9. "Thirst for Power: Energy, Water and Human Survival," **M.E. Webber**, Texas Legislative Briefing, Austin, TX, August 16, 2016.
8. "Energy Water Nexus," **M.E. Webber**, Texas House and Senate Energy Caucus Briefing, August 28, 2014.
7. "Renewables and Brackish Groundwater Desalination in Texas," Texas Water Development Board Roundtable, Austin, TX, February 28, 2013.
6. "The Energy Water Nexus in Texas," Texas Water Day at the Capitol, Texas Legislature, Austin, TX, April 27, 2011.
5. "The Energy-Water Nexus," Metropolitan Planning Council, Chicago, IL, August, 3, 2010
4. "The Nexus of Energy & Water," **M.E. Webber**, LCRA Board of Directors, Austin, TX, February 16, 2010.
3. "The Nexus of Energy & Water," **M.E. Webber**, Hearing of the Great Lakes Commission, Erie, PA, September 30, 2009.
2. "Energy Tradeoffs for Texas," **M.E. Webber**, Texas Legislative Energy Staffers, Fall 2008
1. "Energy Policy," **M.E. Webber**, Texas Legislative Energy Staffers, Spring 2008

Teaching

Webber has created 1 new online course and 8 new in-person courses for a range of technical and non-technical students from freshmen to Ph.D. candidates. These are in addition to teaching duties for core engineering classes (described below).

Online Courses

Webber's MOOC (Massive Online Open Course) titled "Energy 101" was launched in Fall 2013 to an enrolled student body of more than 44,000 students globally. The class was issued over 10 weeks, with three modules released each week. Each module was comprised of 1) a filmed lecture that was given before a live audience and subsequently edited with animations and custom graphics, 2) interactive web-based exercises, and 3) quizzes. Approximately 13% of the students completed the course.

Electives Taught at UT Austin

1. ENERGY TECHNOLOGY & POLICY: a graduate level multidisciplinary, survey course for 66–113 students (about 1–2 dozen slots are set aside for undergraduate engineers) that covers a wide range of technical, economic, policy, and cultural perspectives of energy. Topics include energy production (by fuel and technology), energy use (by sector and application), and the intersection of energy with water, food, waste, the environment, the economy, domestic policy, and international affairs. Each student is required to write a research paper and create a multimedia video. Videos from this course were featured in the "Educational Technology" section of *ITunes* and a few select papers from this course have since been published.
2. ENERGY VENTURES PRACTICUM: a graduate level multidisciplinary course for 25–30 students focused on energy entrepreneurship taught with Texas Venture Labs in the McCombs School of Business. Topics include ideation, team formation, business fundamentals, marketing, go-to-market, business development, customer discovery, intellectual property, and fundraising. Includes graduate students from business, engineering, law, policy, and geosciences.
3. ENTREPRENEURSHIP: a multidisciplinary freshman signature course in seminar style, with 30 students that introduces students to the concepts of entrepreneurship while giving them the skills to create their own company. This course includes guest lectures from dozens of entrepreneurs and will give the students a chance to actually create a company. Assignments include creating a pitch deck for their company and writing a case study of an entrepreneur whom they will interview.
4. WATER AND SOCIETY: a discussion-oriented Tutorial Course in seminar-format for 15 upper-division Plan II Honors students and others admitted by permission. Topics focus on critically examining the role of water in society, including religion, popular culture, war, foreign policy, the economy and local government. Students each write a long individual research paper.
5. INTRODUCTION TO ENERGY AND SOCIETY: a multidisciplinary freshman signature course in large-format lecture style with 50–100 students and weekly discussion sections led by TAs. Topics cover a survey of energy, including the basics of energy (such as thermodynamics), energy production (by fuel and technology), energy use (by sector and application), and cross-cutting elements the intersection of energy with water, food, waste, the environment,

the economy, domestic policy, and international affairs. Each student is required to write a research paper and create a multimedia video.

6. ENERGY & INFRASTRUCTURE SYSTEMS FIELD LABORATORY: a multidisciplinary freshman signature course in seminar style, with 15–18 students that introduces non-engineers and engineers to the world of energy and infrastructure from a hands-on and engineering perspective. Rather than relying exclusively on lectures, this class conducts a weekly field lab that includes site visits to relevant energy and infrastructure sites such as: water and wastewater treatment plants; power plants (natural gas and coal); dam; solar panel manufacturing factory; coal mine; steel mill; nuclear reactor; UT algae library and experimental growth ponds; cement quarry and rotary kiln; semiconductor fab; wind turbine factory; large-scale data center; and recycling facility. Because of the small-format, the class is very discussion-oriented and interactive. Assignments include written field reports and presentations, field trip videos, blogging, group composition (for a class handbook), and an exam.
7. ENERGY AT THE MOVIES: a discussion-oriented Tutorial Course in seminar-format for 15 upper-division Plan II Honors students. Topics focus on critically examining how energy is portrayed in popular culture, and students were each assigned a long individual research paper.
8. THE ENGINEERED WORLD: ENERGY: a multidisciplinary freshman signature course in seminar style, with 15–18 students in an interactive, discussion-oriented format that includes project-oriented assignments, individual research papers and regular blogging. Topics cover the basics of energy production, use and impacts.
9. ENERGY, ENVIRONMENT AND SOCIETY: a multidisciplinary freshman signature course in large-format lecture style with 70–100 students and weekly discussion sections led by TAs. Topics cover the basics of energy production, use and impacts, and assignments include writing research papers and op-eds.
10. How THINGS WORK: a multidisciplinary freshman signature course in large-format lecture style with 102 students and weekly discussion sections led by TAs. This course is intended to serve as an introduction to mechanical engineering principles and concepts while also revealing how engineering fits into a modern, globalized society. The course covers five main sections: 1) The language of engineering: *how things are described*; 2) Machines: *how things work*; 3) Manufacturing: *how things are made*; 4) Energy: *how things are powered*; and 5) Transportation: *how things move*. Lectures include an introduction to quantitative concepts in engineering, along with societal aspects such as culture, economics, and policy. The class includes a semester-long project to build a catapult-based water balloon launcher.

Core Engineering Courses Taught at UT Austin

In addition to the new courses Webber developed, he has also taught core engineering classes: undergraduate thermodynamics for sophomore engineers and thermal fluids systems for juniors. These are described below:

1. THERMODYNAMICS: An introduction to the fundamentals of thermodynamics with an emphasis on engineering applications for sophomore mechanical engineering students. Typical class size is 75–90 students, though it is sometimes offered in double-section up to 160 students. Topics include properties, first law, second law, and cycles.

2. APPLIED THERMODYNAMICS: An introduction to the fundamentals of thermodynamics with an emphasis on engineering applications for freshman or sophomore non-mechanical engineering students. Typical class size is 100–185 students. Topics include properties, first law, second law, and cycles, with an emphasis on HVAC systems, power cycles, and aerospace cycles.
3. THERMAL FLUIDS SYSTEMS: This course integrates thermodynamics, fluid mechanics and heat transfer with an emphasis on engineering applications for junior mechanical engineering students. It is a project-based course. Typical class size is 30–40 students.

Course Summary and Evaluations

Course Title	Enrollment	Course Listing	Semester	Overall Course Rating	Overall Instructor Rating
Energy Ventures Practicum	23	E S 397, EER, LAW, MAN, PA	S24	4.4	4.5
Energy Ventures Practicum	30	E S 397, EER, LAW, MAN, PA	S25	4.3	4.6
Energy Ventures Practicum	36	E S 397, EER, LAW, MAN, PA	S26	TBD	TBD
Applied Thermodynamics	118	ME 310 T	S22	4.1	4.4
Applied Thermodynamics	130	ME 310 T	S23	3.6	3.7
Applied Thermodynamics	114	ME 310 T	S24	3.9	4.0
Applied Thermodynamics	148	ME 310 T	S25	3.9	4.1
Applied Thermodynamics	170	ME 310 T	F25	4.3	4.5
Thermodynamics	92	ME 326	F07	4.0	4.0
Thermodynamics	97	ME 326	F08	4.2	4.3
Thermodynamics	81	ME 326	F09	4.0	4.2
Thermodynamics (double section)	155	ME 326	F10	3.9	4.0
Thermodynamics	76	ME 326	F15	4.2	4.2
Thermal Fluid Systems	33	ME 343	S12	3.9	4.2
The Engineered World—Energy	16	FS 301	F07	4.1	4.6
The Engineered World—Energy	17	UGS 302	F08	4.0	4.6
The Engineered World—Energy	15	UGS 302	F09	4.4	4.7
The Engineered World—Energy	18	UGS 302	F10	4.5	4.8
Energy & Infrastructure Systems Field Laboratory	19	UGS 302	S13	4.5	4.7
Energy, Environment & Society	76	UGS 303	S09	3.9	4.2
Energy, Environment & Society	91	UGS 303	S10	3.9	4.3
Entrepreneurship	19	UGS 302	S15	3.9	3.9
Entrepreneurship	18	UGS 302	S16	4.3	4.5
Entrepreneurship	22	UGS 303	F17	4.1	4.1
Entrepreneurship	22	UGS 303	F18	4.9	4.9
Entrepreneurship	27	UGS 303	S21	4.3	4.7
Entrepreneurship	30	UGS 303	F21	4.1	4.4
Entrepreneurship	29	UGS 303	S23	3.9	4.6
How Things Work	102	UGS 303	F13	3.8	4.4
Energy Technology & Policy	66	ME 397, CHE, EER, PA, MAN	S08	4.4	4.6
Energy Technology & Policy	85	ME 397, CHE, EER, PA, MAN	S09	4.6	4.7
Energy Technology & Policy	113	ME 397, CHE, EER, PA, MAN	S10	4.2	4.4
Energy Technology & Policy	86	ME 397, CHE, EER, PA, MAN	S12	4.4	4.6
Energy Technology & Policy	90	ME 382Q, CHE, EER, PA, MAN	S13	4.6	4.8
Energy Technology & Policy	85	ME 382Q, CHE, EER, PA, MAN	S15	4.6	4.8
Energy Technology & Policy	77	ME 382Q, CHE, EER, PA, MAN	S16	4.7	4.6
Energy Technology & Policy	64	ME 382Q, CHE, EER, PA, MAN	S17	4.8	4.9
Energy Technology & Policy	85	ME 382Q, CHE, EER, PA, MAN	S23	4.7	4.8
Energy at the Movies	12	TC 357	S10	4.6	4.7
Energy at the Movies	15	TC 357	S11	4.2	4.5
Energy at the Movies	16	TC 358	F23	4.9	5.0
Energy at the Movies	14	TC 358	F25	4.5	4.7
Water & Society	14	TC 357	S12	4.6	4.7
	>2000	Total Enrollment	Average	4.2	4.5

Student and Post-Doctoral Supervision

Webber has advised or co-advised dozens of undergraduate and graduate students.

Ph.D. Supervisions Completed:

PhD students under Dr. Webber's supervision or co-supervision have found jobs in academia, national laboratories, government, NGOs and industry.

35. Dr. Sarah Reynolds, Mechanical Engineering, December 2025

- "Methods for Analyzing the Potential for Circularity at the Nexus of Energy, Water, and Waste in the Permian Basin"
- The University of Texas at Austin, Austin, TX

34. Dr. Drew Kassel, Mechanical Engineering, November 2025

- "Assessing the Economic, Environmental, and Reliability Impacts of Connecting ERCOT to Other National Grids and Meeting the Electricity Demand of the Future"
- The University of Texas at Austin, Austin, TX

33. Dr. Matthew Skiles, Mechanical Engineering, May 2024

- "Assessing the Potential for Building Sector Retrofits to Improve Power Grid Reliability During Extreme Weather in Texas"
- ERCOT, Austin, TX

32. Dr. Nick Laws, Mechanical Engineering, November 2023

- Co-Advisor: Maggie Chen
- "A Bilevel Methodology to Optimize the Value of Distributed Energy Resources in Power Systems"
- Camus Energy, Boulder, CO

31. Dr. Anna Schleifer, Mechanical Engineering, November 2021

- "A Method for Investigating the Value Evolution of Utility-Scale PV-plus-Battery Hybrid Systems"
- Argonne National Laboratory, Chicago, IL

30. Dr. Philip White, Mechanical Engineering, August 2021

- "A Method to Model the System-Wide Impacts of Residential Heating Electrification Under Various Future Load Scenarios in Texas"
- National Renewable Energy Laboratory, Golden, CO

29. Dr. Neal Mann, Mechanical Engineering, November 2020

- Co-Advisor: Sheldon Landsberger

- “Technoeconomic Modeling of Nuclear Hybrid Energy Systems with Heat Storage”
 - Argonne National Laboratory, Chicago, IL
28. Dr. Arkasama Bandyopadhyay, Mechanical Engineering, August 2020
- Co-Advisor; Ben Leibowicz
 - “Techno-Economic Methods for Analyzing the Energetic and Economic Effects of Solar, Storage, and Demand Response”
 - Texas A&M University, College Station, TX
27. Dr. Sam Johnson, Mechanical Engineering, September 2019
- “A Method for Evaluating Grid Stability with High Penetrations of Renewable Energy and Energy Storage”
 - Southern Company, Birmingham, AL
26. Dr. Catherine Birney, Civil, Architectural and Environmental Engineering, August 2019
- “A Framework for Evaluating Energy Embedded in the United States’ Food System Including Trade-Offs Between Refrigeration and Food Waste”
 - The Environmental Protection Agency, Cincinnati, OH
25. Dr. Bruk Berhanu, Civil, Architectural and Environmental Engineering, August 2019
- “Investigating the Role of Decentralized Water Systems as Strategies for Urban Water and Wastewater Management”
 - Pacific Institute, Oakland, CA
24. Dr. Isabella Gee, Civil, Architectural and Environmental Engineering, May 2019
- “Deliver Me from Waste: Impacts of E-Commerce on Food Supply Chain Energy Use”
 - Alfred P. Sloan Foundation, New York, NY
23. Dr. Sam Aminfard, Mechanical Engineering, Dec 2018
- “Methods for Evaluating the Potential to Power Industrial Processes with Geospatially and Temporally Varying Renewable Energy Resources”
 - ExxonMobil, Spring, TX
22. Dr. Margaret A. Cook, Civil, Architectural and Environmental Engineering, Aug 2018
- “A techno-economic and policy analysis of integrated, cross-sectoral water management and conservation”
 - Houston Advanced Research Center, Spring, TX
21. Dr. Kazunori Nagasawa, Mechanical Engineering, Aug 2018
- “Optimizing Integrated Renewable and Gaseous Systems for Grid and Residential Applications”

- National Renewable Energy Laboratory, Golden, CO
20. Dr. Yael R. Glazer, Civil, Architectural and Environmental Engineering, Aug 2018
- “A Techno-Economic Framework for Mitigating Environmental Liabilities from Unconventional Oil and Gas Operations in the United States”
 - UT Austin, Austin, TX
19. Dr. Andrew S. Reimers, Mechanical Engineering, May 2018
- “Interactions between Power Generation and Desalination Systems”
 - Potomac Economics, Austin, TX
18. Dr. Carlos Galdeano, Civil, Architectural and Environmental Engineering, May 2018
- “Energy and Water Nexus: Water management framework for the development of shale resources in Mexico”
 - ExxonMobil, Spring, TX
17. Dr. J. Scott Vitter, Mechanical Engineering, May 2018
- “Opportunities for Urban Water Systems to Deliver Demand-Side Benefits to the Electric Grid”
 - Bain, Chicago, IL
16. Dr. Thomas A. Deetjen, Mechanical Engineering, May 2018
- “The benefits and challenges of renewables on the electric grid and opportunities for systems integration and demand side management”
 - RWE Americas, Austin, TX
15. Corey James, Chemical Engineering, May 2017
- Co-Advisor: Tom Edgar
 - “Reducing the Cost of Operational Water on Military Bases Through Modeling, Optimization, and Control”
 - U.S. Military Academy, West Point, NY
14. Bonnie Roberts, Mechanical Engineering, May 2017
- Co-Advisor: DK Ezekoye
 - “Fire Safety in Sustainable Buildings: Status, Options, Alternatives”
 - Colorado State University, Ft. Collins, CO
13. Michael E. Legatt, Electrical and Computer Engineering, December 2016
- Co-Advisor: Ross Baldick
 - “An Experimental and Analytical Method for Assessing the Integration of Electric Vehicles into the Bulk Power System”

- Resilient Grid, Austin, TX
12. Charles R. Upshaw, Mechanical Engineering, May 2016
- “Peak Load Reduction and Water Savings Potential of Integrated Thermal Energy and Auxiliary Water Storage Systems for Residential Buildings in Austin, Texas”
 - IdeaSmiths LLC, Austin, TX
11. Robert L. Fares, Mechanical Engineering, August 2015
- “A Framework to Model and Optimize the Operation of Lithium-Ion Energy Storage in Electricity Markets, and an Assessment of Lithium-Ion Energy Storage in Texas”
 - Federal Energy Regulatory Commission, Washington, DC
10. Jared B. Garrison, Mechanical Engineering, December 2014
- “A Grid-Level Unit Commitment Assessment of High Wind Penetration and Utilization of Compressed Air Energy Storage in ERCOT”
 - Swissgrid, Zurich, Switzerland
9. Joshua D. Rhodes, Civil, Architectural and Environmental Engineering, April 2014
- “Impacts of Big Data on Optimal Residential Energy Consumption Prediction and Analysis”
 - UT Austin, Austin, TX
8. Kelly Twomey Sanders, Civil, Architectural and Environmental Engineering, October 2013
- “Analytical methods and strategies for using the energy-water nexus to achieve cross-cutting efficiency gains”
 - University of Southern California, Los Angeles, CA
7. Chioke B. Harris, Mechanical Engineering, October 2013
- “An Assessment of the System Costs and Operational Benefits of Vehicle-to-Grid Schemes”
 - National Renewable Energy Laboratory, Golden, CO
6. Ashlynn S. Stillwell, Civil, Architectural and Environmental Engineering, April 2013
- “Water Impacts on Thermoelectric Generation”
 - University of Illinois Urbana-Champaign, Urbana-Champaign, IL
5. Aaron K. Townsend, Mechanical Engineering, January 2013
- “A Grid-Level Assessment of Compressed Air Energy Storage in ERCOT”
 - NextEra, Austin, TX
4. Stuart M. Cohen, Mechanical Engineering, August 2012
- Co-Advisor: Gary Rochelle

- “A Techno-economic Plant- and Grid-Level Assessment of Flexible CO₂ Capture”
 - National Renewable Energy Laboratory, Golden, CO
3. Nathan Putnam, Mechanical Engineering, August 2012
 - Co-Advisor: Carolyn Seepersad
 - “Computer Tools for Designing Self-Sufficient Military Base Camps”
 - Green Bridge Corporation, New York, NY
 2. Ben Gully, Mechanical Engineering, August 2012
 - Co-Advisor: Carolyn Seepersad
 - “Hybrid Powertrain Design for Naval and Commercial Ocean-Going Vessels”
 - SPOC Grid Inverter Technologies, Birmingham, AL
 1. Colin M. Beal, Mechanical Engineering, May 2011
 - Co-Advisors: Rod Ruoff, Bob Hebner
 - “Constraints on algal biofuel production”
 - Low Carbon Technologies, Lander, WY

Committee Member:

33. Jerry Potts, Civil, Architectural and Environmental Engineering, expected Summer 2026
32. Sohail Shad, Mechanical Engineering, expected Summer 2026
31. Karey Maynor, Mechanical Engineering, expected Summer 2026
30. Mark Hamalian, Mechanical Engineering, expected Spring 2026
29. Matt Dean, Civil, Architectural and Environmental Engineering, Spring 2023
28. Christina Wirsching, Architecture, Fall 2019
27. Kristina Tjachman, Architecture, Spring 2019
26. Julia O'Rourke, Mechanical Engineering, Fall 2017
25. Austin Anderson, Mechanical Engineering, Spring 2017
24. Amanda Cuellar, Civil, Architectural and Environmental Engineering, Spring 2016
23. Krystian Perez, Chemical Engineering, Spring 2016
22. Kyle Chavez, Mechanical Engineering, Spring 2016
21. Sean DeRosa, Chemical Engineering, Spring 2016
20. Jeremy Mayo, Education, Spring 2015

19. Brady Stoll, Mechanical Engineering, Spring 2015
18. Kristen Cetin, Civil, Architectural and Environmental Engineering, Spring 2015
17. Duehee Lee, Electrical and Computer Engineering, Spring 2015
16. Daniel Zavala, Chemical Engineering, August 2014.
15. Elena Nirlo, Civil, Architectural and Environmental Engineering, April 2014
14. Felix Gutierrez, Electrical and Computer Engineering, Fall 2013
13. Jakub Felkl, Mechanical Engineering, Fall 2013
12. Marwa Zataari, Civil, Architectural and Environmental Engineering, Fall 2013
11. Robert Crawford, Mechanical Engineering, Spring 2013
10. Cassandra Telenko, Mechanical Engineering, Fall 2012
9. Ian Partridge, LBJ School of Public Affairs, Fall 2012
8. Nawaf Alhajeri, Civil Engineering, Summer 2012
7. Todd Davidson, Mechanical Engineering, Spring 2012
6. Meryl Stoller, Mechanical Engineering, Fall 2011
5. Jason Albert, Mechanical Engineering, Spring 2011
4. Mariana Dionisio, Chemical Engineering, Spring 2010
3. Ross Dugas, Chemical Engineering, Fall 2009
2. Tammy Thompson, Chemical Engineering, Fall 2008
1. Taylor Green, Mechanical Engineering, Spring 2008

M.S./M.A./M.P.Aff/M.G.P.S./M.B.A. Supervisions Completed

- Advisor/Co-Advisor:

40. Alonso Fernandez, Energy & Earth Resources, May 2026, "Title TBD"
39. Melpomeni Katsiroumba, Mechanical Engineering, May 2025, "A Framework for Assessing Economic and Environmental Trade-offs of Internalized Emission Costs in ERCOT Grid Planning"
38. Robert Kasten, Mechanical Engineering, May 2025, "Assessment of Advanced Nuclear Adoption Amid Natural Gas Price Uncertainty and Variable Capital and Operational Expenses"
37. Scott Mitchell, Energy & Earth Resources, May 2025, "An Analysis of Commercialization Pathways for Acoustic Verification of Carbon Sequestration in Seagrass Meadows"

36. Emily Arnim, Energy & Earth Resources, May 2025, “Ensuring Resource Adequacy for Austin Energy: Forecasting Demand Growth and Managing Peak Load through 2040”
35. Esther Goita, Energy & Earth Resources, May 2024, “Hydrogen Emissions and Associated Warming Effects During Production and Across Hydrogen Supply Chains”
34. Isabella Peterson, LBJ School of Public Affairs, May 2024
33. Leah N. Pretorius, Mechanical Engineering, May 2023, “Optimal Sizing of Distribution-Scale Energy Storage”
32. Sarah Dodamead, Energy & Earth Resources and LBJ School of Public Affairs, May 2022
31. Heather S. Rose, Energy & Earth Resources, August 2020
30. Brittany L. Speetles, Mechanical Engineering, May 2020, “Representative Day Selection in Capacity Expansion Modeling: An Accelerated Energy Transition for Texas”
29. Faith S. Martinez Smith, Energy & Earth Resources and LBJ School of Public Affairs, May 2016, “Does Coal Mining in West Virginia Produce or Consume Water? A net water balance of seven coal mines in Logan County, West Virginia, an aquifer assessment, and the policies determining water quantities”
28. Andrew S. Reimers, Mechanical Engineering, August 2015, “Low Temperature Heat and Water Recovery from Super-critical Coal Plant Flue Gas”
27. Gary M. Gold, Environmental Water and Resource Engineering, May 2015, “The Energy-Water Nexus: An Analysis and Comparison of Various Configurations Integrating Desalination with Renewable Power”
26. Brynjólfur V. Ólafsson, Mechanical Engineering, December 2014, “The Technical Potential of Renewable Natural Gas (RNG) in the United States, and the Economic Potential of Methanation-derived RNG in Texas”
25. Margaret A. Cook, Environmental Water and Resource Engineering and LBJ School of Public Affairs, December 2014, “Mitigating the Impacts of Droughts and Heat Waves at Thermoelectric Power Plants in the United States”
24. Jill B. Kjellsson, Environmental Water and Resource Engineering and LBJ School of Public Affairs, August 2014, “The Energy-Water Nexus: Energetic Analysis of Water and Wastewater Treatment, Distribution and Collection”
23. Erin Keys, Mechanical Engineering, August 2014, “Variable Speed Drives for Power Factor Correction in the Water Sector”
22. Jeremy R. Zaborowski, Energy & Earth Resources, August 2014, “Valuation of an Advanced Combined Cycle Power Plant and its Cost of New Entry (CONE) Into the ERCOT Market”
21. Yael R. Glazer, Environmental Water and Resource Engineering, May 2014, “The Potential for Using Energy from Flared Gas or Renewable Resources for On-Site Hydraulic Fracturing Wastewater Treatment”
20. Elizabeth Waite, Energy & Earth Resources, December 2013, “Decision Support for Project Selection in Texas Water Planning”

19. Colin M. Meehan, Energy & Earth Resources, December 2013, "Estimating Emissions Impacts to the Bulk Power System of Increased Electric Vehicle and Renewable Energy Usage"
18. Mary Clayton, Mechanical Engineering, August 2013, "The Energy Water Nexus: Increasing Water Supply By Desalination Integrated With Renewable Power and Reducing Water Demand By Corporate Water Footprinting"
17. Alisa Schackmann, LBJ School of Public Affairs, May 2013, Topic: Underground Transmission
16. Charlie Upshaw, Mechanical Engineering, May 2012, "Thermodynamic and Economic Feasibility Analysis of a 20 MW Ocean Thermal Energy Conversion (OTEC) Power Plant"
15. Adolfo Lozano, Mechanical Engineering, August 2011, "Analysis of a Novel Thermoelectric Generator in the Built Environment"
14. Castlen Kennedy, Energy & Earth Resources and LBJ School of Public Affairs, August 2011, "Assessing the Viability of Compressed Natural Gas as a Transportation Fuel for Light-Duty Vehicles in the United States"
13. Emily Grubert, Environmental Water Resource Engineering, May 2011, "Freshwater on the Island of Maui: System Interactions, Supply, and Demand"
12. Melissa Lott, Mechanical Engineering and LBJ School of Public Affairs, December 2010, "Quantifying the Economic and Environmental Tradeoffs of Electricity Mixes in Texas, Including Energy Efficiency Potential Using the Rosenfeld Effect as a Basis for Evaluation"
11. David Wogan, Mechanical Engineering and LBJ School of Public Affairs, December 2010, "An Integrated Resource and Biological Growth Model for Estimating Algal Biomass Production With Geographic Resolution" (Co-Advisor: Dr. Alex da Silva)
10. Chioke Harris, Mechanical Engineering, August 2010, "A Mixed-Integer Model for Optimal Grid-Scale Energy Storage Allocation" (Co-Advisor: Dr. Jeremy Meyers)
9. Emily Grubert, Energy and Earth Resources, August 2010, "Maui's Freshwater Status, Allocation, and Management for Sustainability"
8. Kelly Twomey, Mechanical Engineering, May 2010, "The Energy-Water Nexus: An Examination of the Water Quality Impacts of Biofuels"
7. Ashlynn Stillwell, Environmental & Water Resource Engineering and LBJ School of Public Affairs, May 2010, "The Energy-Water Nexus in Texas" **[Winner of the American Water Works Association's (AWWA's) Second Place Academic Achievement Award for the best Master's Thesis]**
6. Michael O'Donnell, Mechanical Engineering, December 2009, "Barriers to a Biofuels Transition in the U.S. Liquid Fuels Sector"
5. Jared Garrison, Mechanical Engineering, December 2009, "An Integrated Energy Storage Scheme for a Dispatchable Wind and Solar Powered Energy System"
4. Cassandra Telenko, Mechanical Engineering, December 2009, "Developing Green Design Guidelines: A Formal Method and Case Study" (Co-Advisor: Dr. Carolyn Conner Seepersad)

3. Stuart Cohen, Mechanical Engineering, May 2009, "The Implications of Flexible CO₂ Capture on the ERCOT Electric Grid" (Co-Advisor: Dr. Gary Rochelle)
 2. Colin Smith, Mechanical Engineering, May 2009, "Conversion of Wet Ethanol to Syngas via Filtration Combustion" (Co-Advisor: Dr. Janet Ellzey)
 1. Ben Eisterhold, Energy & Earth Resources, May 2008, "The Geotechnical and Economic Constraints of the U.S. Strategic Petroleum Reserve"
- Committee Member or 2nd Reader:
 28. Kendall Baker, Energy & Earth Resources, May 2026
 27. Yasmin Bibi, Mechanical Engineering, May 2025
 26. Berik Matebay, Energy & Earth Resources, May 2025
 25. Brandon Bloom, Mechanical Engineering, May 2024
 24. Erik Wieser, Energy & Earth Resources, May 2023
 23. Sam Klarin, Energy & Earth Resources, May 2023
 22. Tomas Fuentes-Afflick, Energy & Earth Resources, May 2022
 21. Julia Conger, Electrical and Computer Engineering, December 2018
 20. Hector Arreola, Energy & Earth Resources, May 2017
 19. Kayla Fenton, Energy & Earth Resources and McCombs School of Business, May 2017
 18. Jose D. Beceiro, Energy & Earth Resources, May 2015
 17. Guillermo Hernandez, Electrical Engineering, May 2014
 16. Julia O'Rourke, Mechanical Engineering and LBJ School of Public Affairs, May 2013
 15. Robert Fares, Mechanical Engineering, August 2012
 14. Constance McDaniel Wyman, Energy & Earth Resources, May 2011
 13. Claire Follete, Mechanical Engineering, May 2010
 12. Nate Lapierre, Energy & Earth Resources, May 2010
 11. Morayo Noibi, Chemical Engineering, August 2009
 10. Andrew Durkee, Energy & Earth Resources, May 2009
 9. Christopher Smith, LBJ School of Public Affairs, May 2009
 8. Susan Peterson, LBJ School of Public Affairs, May 2009
 7. Maura Nippert, Mechanical Engineering, December 2008
 6. Ross Johnson, Mechanical Engineering, August 2008
 5. Federico Pozo, Energy & Earth Resources, May 2008
 4. John Losinger, LBJ School of Public Affairs, May 2008
 3. Arash Nazhad, Energy & Earth Resources, May 2008
 2. In-Hul Chwang, Energy & Earth Resources, May 2008
 1. Cyrus Tashakorri, McCombs School of Business and LBJ School of Public Affairs, May 2008

Research Professionals and Staff Supervisions:

25. Dr. Drew Kassel, Post-Doctoral Fellow, January 2026 – present
24. Dr. Harry Kennard, Research Associate, August 2024 – present
23. Dr. Emily Beagle, Research Associate, April 2022 – present
22. Dr. Yael Glazer, Research Associate, March 2019 – present
21. Dr. Joshua Rhodes, Research Scientist, May 2014 – present
20. Mr. Jeff Phillips, Technical Illustrator, November 2012 – present
19. Dr. Isabella Gee, Post-Doctoral Fellow, October 2019 – April 2022
18. Dr. Thomas Deetjen, Research Associate, May 2020 – January 2022
17. Dr. Emily Beagle, Post-Doctoral Fellow, September 2018 – December 2019
16. Dr. Todd Davidson, Research Associate, September 2014 – August 2019
15. Dr. Charles Upshaw, Post-Doctoral Fellow, June 2016 – June 2018
14. Dr. Robert Fares, Post-Doctoral Fellow, August 2015 – August 2016
13. Ms. Marianne Shivers Gonzalez, Special Projects Coordinator, January 2011 – January 2016
12. Ms. Griffin Gardner, Media Coordinator, August 2011 – August 2016
11. Mr. Juan Garcia, Media Producer, November 2012 – July 2015
10. Dr. Chioke Harris, Post-Doctoral Fellow, January 2014 – August 2014
9. Dr. Colin M. Beal, Post-Doctoral Fellow, December 2012 – August 2013
8. Mr. Roger Duncan, Research Analyst, September 2011 – August 2013
7. Dr. Carey W. King, Research Associate & Post-Doctoral Fellow, Feb 2007 – Aug 2013
6. Dr. Fred C. Beach, Research Associate & Post-Doctoral Fellow, Sep 2010 – July 2013
5. Dr. Ben H. Gully, Post-Doctoral Fellow, September 2012 – December 2012
4. Mr. Alex Breckel, Research Engineer, January 2012 – August 2012
3. Ms. Sheril R. Kirshenbaum, Research Scientist, January 2010 – February 2012
2. Ms. Melissa C. Lott, Research Scientist, January 2011 – October 2011
1. Ms. Amanda C. Cuellar, Research Engineer, May 2009 – August 2010

International Visiting Scholars:

10. Jakob Frerichs, ETH, Zurich, Switzerland (Spring 2026)

9. Julia Gawlick, TU Munich, Germany (Fall 2022)
8. Anna Braunfels, TU Munich, Germany (Fall 2021)
7. Anna Szujo, TU Munich, Germany (Fall 2017)
6. Elena Mocanu, TU Eindhoven, Netherlands (Spring 2016)
5. Decebel Mocanu, TU Eindhoven, Netherlands (Spring 2016)
4. Henry Martin, TU Munich, Germany (Spring 2016)
3. Luis Hurtado, TU Eindhoven, Netherlands (Fall 2015)
2. Australian Fulbright guy Andy Blyth (Fall 2012)
1. Kazunori Nagasawa, Nihon University, Fukushima, Japan (Fall 2011-Fall 2012)

Ph.D./M.S. Supervisions In Progress:

1. Léa Daniel, Mechanical Engineering
2. Braden Pecora, Mechanical Engineering
3. Laura Rivera Gomez, Mechanical Engineering
4. Andrew Igdal, LBJ School of Public Affairs
5. Emlynn Daniel, Mechanical Engineering
6. Grayson Cliff, Mechanical Engineering
7. Alonso Fernandez, Energy & Earth Resources
8. Sandra Banda, Environmental Water & Resource Engineering
9. Venkat Tirupati, LBJ School of Public Affairs
10. K. Lucas Bons, Mechanical Engineering
11. Catherine Russell, Mechanical Engineering
12. Jonathan Sicard, Sustainable Systems, Civil Architectural & Environmental Engineering

Undergraduate Research Supervision:

- Plan II Thesis Supervision as Advisor or Second Reader
31. Rafael Reynal, May 2027
 30. Jared Levy, May 2027
 29. Adithi Reddy, May 2026
 28. Margaret McCutchan, May 2026

27. Dylan Gross, May 2025
26. Christian McWilliams, May 2025
25. Mariana Rivas, May 2024
24. Mark Weisberg, May 2024
23. Ben Evanson, December 2023
22. Braden Pecora, December 2022
21. Emma Laub, May 2022
20. Zoe Littleton, December 2019
19. Gregory Ross, May 2019
18. Trey Black, May 2018
17. Coleman Tharpe, May 2015
16. Will Gorman, May 2014 [**Winner of the Model Plan II Thesis Award**]
15. Kevin Clegg, May 2013
14. Austin Shires, May 2012
13. Zach Ullah, May 2012
12. James Newman, May 2012
11. Rob Taylor, May 2012
10. Brad Parro, May 2011
9. Will Johnson, May 2011
8. Megan Stephens, May 2011
7. Ashley Powell, May 2011
6. Amanda Cuellar, May 2009
5. Paolo Puccini, May 2009
4. Avi Wolfson, May 2008
3. Jim Coutre, May 2008
2. Nick Padon, December 2007
1. Ben Branstetter, December 2007

- Undergraduate Assistants

64. Emily Altamirano, Spring 2026–present
63. Hailey Clingan, Spring 2026–present
62. Grace Scarborough, Fall 2024–present
61. Esshia Bilal, Spring 2023 – present
60. Riley Robinson, Spring 2023 – Fall 2023; Fall 2024–Summer 2025
59. Anna Victoria Lavelle, Fall 2023–Spring 2025
58. Vardhan Koripally, Spring 2023–Spring 2025

57. Kimble Horsak, Fall 2023–Spring 2024
56. Jena Medina, Spring 2023 – December 2023
55. Justin Shih, Summer 2021 – May 2023
54. Braden Pecora, Summer 2021 – May 2023
53. Mia Moore, Summer 2021 – May 2023
52. Emma Laub, Summer 2019 – May 2022
51. Aaron Nisman, Summer 2020 – May 2022
50. William Wade, Summer 2020 – May 2022
49. Carson Reed, Summer 2019 – December 2021
48. Kelsey Richardson, Summer 2018 – May 2021
47. Carolina Muñoz Castillo, Spring 2020–Spring 2021
46. Hannah Fawcett, Summer 2017 – Fall 2019
45. Gregory Ross, Summer 2016 – Spring 2018
44. Nicholas Behling, Fall 2017–Summer 2018
43. Julia Conger, Fall 2017 – Summer 2018
42. Gordon Tsai, Summer 2016 – Summer 2018
41. Heather Rose, Summer 2016 – Summer 2018
40. Brittany Speetles, Fall 2016 – Summer 2018
39. Laura Rivera Gomez, Fall 2016 – Fall 2017
38. Yuval Edrey, Summer 2015 – Spring 2017
37. Jamie Lee, Spring 2015 – Spring 2016
36. Betsy Martinez, Spring 2015 – Spring 2016
35. Marisa Ballard, Spring 2015 – Spring 2016
34. Breanna Granzow, Spring 2013 – Summer 2015
33. Coleman Tharpe, Spring 2013 – Summer 2015
32. Kody Jones, Mechanical Engineering, Spring 2014 – Fall 2014
31. Robert Kennedy, Mechanical Engineering, Spring 2014
30. Will Gorman, Chemical Engineering and Plan II, Spring 2012 – Spring 2014
29. Zach Wilhoit, Mechanical Engineering, Fall 2012 – Summer 2013
28. Blake Sandoval, Mechanical Engineering, Fall 2012 – Spring 2013
27. Vineet Raman, Electrical Engineering, Fall 2012 – Spring 2013
26. Isaac Sanchez, Mechanical Engineering, Summer 2012 – Spring 2013
25. Richard North, Mechanical Engineering, Fall 2011 – Fall 2012
24. Susan Conover, Mechanical Engineering, Fall 2011 – Spring 2012
23. Neil Barbaria, Electrical and Computer Engineering, Fall 2011
22. James Newman, Mechanical Engineering and Plan II, Fall 2010 – May 2012

21. John Fyffe, Mechanical Engineering, Fall 2008 – Summer 2011
20. Mary Clayton, Mechanical Engineering, Fall 2009 – May 2011
19. Courtney Grosvenor, Mechanical Engineering, Summer 2010 – May 2011
18. Veronica Pulido, Mechanical Engineering, Fall 2009 – Fall 2010
17. Lauren Ayers, Liberal Arts, Spring 2010 – August 2010
16. Charlie Upshaw, Mechanical Engineering, Fall 2009 – Spring 2010
15. Christopher Mayer, Mechanical Engineering, Summer 2010 – Fall 2010
14. Royce Chang, Mechanical Engineering and Plan II, Fall 2009
13. Adam Petri, Mechanical Engineering, Fall 2009
12. Alix Broadfoot, Civil Engineering, Spring 2007 – Spring 2009
11. Amanda Cuellar, Chemical Engineering and Plan II, Spring 2007 – Spring 2009
10. Alex Levy, Mechanical Engineering, Spring 2009
9. Tommy Browder, Mechanical Engineering, Summer 2008 – Fall 2008
8. Scott McNally, Chemical Engineering, Summer 2008–Fall 2008
7. Andrew King, Mechanical Engineering, Spring 2008–Summer 2008
6. Alison Whitt, Mechanical Engineering, Spring 2008
5. Erin Keys, Mechanical Engineering, Fall 2007–Spring 2008
4. Afolabi Ogunnaike, Chemical Engineering, Fall 2007–Spring 2008
3. Avi Wolfson, Mechanical Engineering and Plan II, Fall 2007–Spring 2008
2. Henri Kjellberg, Aerospace Engineering, Spring 2007 – Summer 2007
1. Andrea Pearlman, Mechanical Engineering, Spring 2007

Sponsors: September 2007–December 2024

Between September 2007 and December 2024, Dr. Webber has helped develop over \$45 million of support for over 100 different projects. Of that amount, approximately \$22 million is for projects that Webber supervises (over \$1.3 million per year, on average). That support came from different categories of sponsors as noted in the table. Each institutional sponsor is listed below.

Funder Category	Amount (Rounded to the nearest \$10,000s)
Foundations and Non-Profits	\$7,410,000
State Government	\$5,100,000
Federal Government	\$5,040,000
Industry (Contracts and Gifts)	\$3,560,000
Local Government	\$750,000
Gifts from Individuals	\$220,000
Total	\$22,080,000

Federal Government Sponsors:

- U.S. Army Corps of Engineers
- National Science Foundation
- U.S. Environmental Protection Agency
- U.S. Department of Energy
- ARPA-E (Advanced Research Projects Agency-Energy)
- Idaho National Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratory
- Canada Pension Plan Investment Board

State Government Sponsors:

- ERCOT (Electric Reliability Council of Texas)
- Texas State Energy Conservation Office
- Texas Air Research Center
- Texas Commission on Environmental Quality
- Texas Water Development Board

Texas Emerging Technology Fund

- Texas General Land Office
- The University of Texas at Austin
- University Lands
- Harrington Fellows Program at UT Austin

Local Government Sponsors:

- Austin Energy
- Austin Water Utility
- Lower Colorado River Authority
- Pedernales Electric Cooperative
- Tarrant Regional Water District

Foundations and Non-Profits:

- 308 Grace Street
- Alfred P. Sloan Foundation
- American Clean Skies Foundation
- Aspen Institute
- Bake Family Trust
- BQuest Foundation

Breakthrough Energy

- Catena Foundation
- Center for Climate and Energy Solutions
- Charities Aid Foundation
- Clean Grid Initiative
- CleanTX Foundation
- Cynthia and George Mitchell Foundation
- Doris Duke Foundation (via Pecan Street, Inc.)
- EcoRise Youth Innovations
- Education Foundation of America
- Energy Foundation
- Environmental Defense Fund
- Hawaii Community Foundation
- Hewlett Foundation
- Jewish Community Fund
- Kuwait Foundation for the Advancement of Science
- Lemelson Foundation
- Markle Foundation
- Meadows Foundation
- National Philanthropic Trust
- Pecan Street, Inc.

- Power Across Texas
- Ray C. Anderson Foundation
- Rockefeller Foundation
- Roy A. Hunt Foundation
- San Antonio Area Foundation
- Sloan Foundation
- Stillwater Foundation
- Sustainable America
- Texas Environmental Grant-makers Group
- Tiller Family Foundation
- Ulopono Initiative
- Watereuse Foundation
- Webber Family Foundation
- Winkler Family Foundation

Industry, Consortia and Corporate Foundations:

- 1804 Operating
- 27 Ventures
- Adamantine Energy
- Aethon Energy
- AI One
- Air Liquide
- AMD
- American Chemistry Council
- Apache
- APEX
- Arena Energy

- ASME International
- AT&T
- BP
- Caprock Renewables
- CB&I
- CBRE
- Centerpoint
- Chesapeake Energy
- Chevron
- Crescent Energy
- Crescent Point Resources
- Deloitte
- El Paso
- Enchanted Rock
- ENGIE North America
- ExxonMobil
- First Republic Private Wealth Management
- First Solar
- GDS Associates
- Goodnight Midstream
- Grid United
- GTI Energy
- HEB
- Hewlett Packard Labs
- InnerHarbor Advisors
- Intel Foundation
- Invenergy
- Itron
- Johnson Controls
- Juniper Advising
- Luminant
- Meta
- National Instruments
- Northern Star Generation
- Omega Nine Corporation
- OpenAlgae
- OWL
- Proctor and Gamble
- Quicksilver
- Rockland Capital
- Shell
- Southwestern
- Southwest Research Institute
- Spears Abacus Advisors
- Specific Energy
- Statoil
- Texas Gas Service
- Total Petrochemical
- TPS Power Holdings LLC
- U.S. Dairy Association
- Vitol
- WateReuse Texas
- Well Fargo Foundation
- WoodGroup Mustang
- YarCom

University Committee Assignments

- The University of Texas System
 - Member, UT System Academy of Distinguished Teachers (2014–present)
- The University of Texas at Austin
 - President's Core Curriculum Task Force (2025–present)
 - Engineering Academic Director, Kay Bailey Hutchison Energy Center (2023–present)
 - Faculty Advisor, Society of Plan II Engineers (2014–present)
 - Chair, Search Committee, Senior Vice Provost for Curriculum & Enrollment and Dean of Undergraduate Studies (2021–2022)
 - Interim Director, Energy Institute (2018)
 - Deputy Director, Energy Institute (2013–2018)
 - Co-Director, Clean Energy Incubator (2009–2018)
 - Member, Plan II Advisory Council (2014–2018)
 - Member, Technology-Enhanced Educational Oversight Committee (2014–2018)
 - Member, Information Technology Committee (2014–2018)
 - Member, Regents' Outstanding Teaching Awards committee (2013)
 - Faculty panel, Bridging Disciplines Program in International Studies (2007– 2009)
 - Associate Director, Center for International Energy & Environmental Policy (2006–2012)
 - Member, Working Group on Energy and Water Systems of the President's Task Force on Sustainability (Summer 2008)
- Cockrell School of Engineering, LBJ School of Public Affairs, Jackson School of Geosciences
 - Promotion & Tenure Committee, Cockrell School of Engineering, (2024–2026)
 - Graduate Studies Committee, Mechanical Engineering (2007–present)
 - Graduate Studies Committee, Civil, Architectural & Environmental Eng. (2010–present)
 - Graduate Studies Committee, Energy and Earth Resources (2007–present)
 - Graduate Studies Committee, LBJ School of Public Affairs (2009 – present)
 - Member, Engineering Public Affairs Advisory Committee, Cockrell School (2007–2008)
 - Member, OYEG Selection Committee, Cockrell School (2008)
- Department of Mechanical Engineering and Civil, Architectural & Environmental Engineering
 - Member, CAEE Search Committee (2025–2026)
 - Member, TFS Search Committee (2025–2026)
 - Member, Community, Culture & Wellness Committee (2022–present)
 - Member, Building Committee (2022–present)
 - Member, Comprehensive Periodic (Post-Tenure) Reviews Committee (2021–present)
 - Member, Quals Committee (Jan 2007–Spring 2009)