

# Jason C. Quinn

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## Professional Experience:

- Operating Director, (January 2023-present) Energy Institute, Colorado State University  
Professor, (July 2023-present), Department of Mechanical Engineering, Colorado State University
- Associate Professor, (July 2018-June 2023) Department of Mechanical Engineering, Colorado State University
- Rockwell-Anderson Professorship (July 2019-June 2022), Walter Scott Jr. College of Engineering, Colorado State University
- Assistant Professor, (August 2016-June 2018) Department of Mechanical Engineering, Colorado State University
- Assistant Professor, (July 2012-August 2016) Department of Mechanical & Aerospace Engineering, Utah State University
- Research Scientist, (May 2011-July 2012) Department of Mechanical Engineering, Colorado State University

## Refereed Journal Articles:

1. Quiroz, D., Quinn, J.C. Techno-economic analysis of microalgae cultivation strategies: batch and semi-continuous approaches, *Algal Research* (in press)
2. Wiltse, M. E., Ballenger, B., Stewart, C. B., Blewett, T. A., Wadler, C., Roth, H. K., Coupanec, M., Tariq, H., Xu, P., Tarazona, Y., Zhang, Y., Sudowe, R., Rosenblum, J. S., Quinn, J. C., & Borch, T., Oil and Gas Produced Water for Cattle, Crops, and Surface Water Discharge: Evaluation of Toxicity, Chemistry, and Economics, *Journal of Hazardous Materials* (in press)
3. Porter, B.W., Sowby, R.B., Williams, G.P., Limb, B.J., Quinn, J.C., Johnson, A., Thomas, E., 2025, Mitigating Wildfire Impact on Water Quality through Climate-Based Financing: A Case Study of the Provo River Watershed, *ACS ES&T Water* (in press)
4. Limb B. J., Smith J. P., Simske S. J., Quinn J. C., 2025, Cultivating Clarity: Understanding the Impact of Land Cost Assumptions on Biofuel Viability, *Energy Economics*, 2025, 8:61-70
5. Ari Akdemir, E., Kern, J., Smith, J. P., Limb, B. J., Quinn, J. C., Field, J. L., Pack, T. 2025, Multi-objective optimization of sustainable aviation fuel production pathways in the U.S. corn belt. *Biomass and Bioenergy*, 193, 107590
6. Antonanzas, J., Quinn, J.C., 2025, Carbon footprint assessment of natural rubber derived from Liberian hevea trees, *International Journal of Environmental Science and Technology*, 22, 667–678.
7. Horesh, N., Quinn, J.C., 2024, Fuel shifts reduce most of the greenhouse gas emissions from transportation in the United States, *Nature Communications Earth & Environment*, 5, 781
8. Quiroz, D, McGowen, J., & Quinn, J.C. 2024, Implications of pond reliability on the techno-economic and life cycle environmental impacts of algal biofuels. *Journal of Cleaner Production*, 469, 143178
9. Horesh, N., Trinko, D., Quinn, J.C., 2024, Comparative Analysis of Electric Vehicle Charging Systems across the United States: Cost and Environmental Impact, *Nature Communications* 15, 4680

10. Limb B. J., Quinn J. C., Johnson A., Sowby R. B., Thomas E., 2024, Greening America's Rivers: The Potential of Climate Financing for Nature-Based Water Quality Improvement, *Nature Communications Earth & Environment*, 5, 185
11. Greene, J. M., Wallace, J., Williams, R. B., Leytem, A. B., Bock, B. R., McCully, M., Kaffka, S. R., Rotz, C. A., Quinn, J. C. 2024, National greenhouse gas emission reduction potential from adopting anaerobic digestion on large-scale dairy farms in the United States, *Environmental Science & Technology*, 58(28), 12409–12419
12. Limb B. J., Smith J. P., Simske S. J., Quinn J. C., 2024, Estimating Geographic Origins of Corn and Soybean Biomass for Biofuel Production: A Detailed Dataset, *Data in Brief*, 54, 110291
13. Markey E. J., Vercellino R., Limb B. J., Pisciotta M., Huyett J., Garland S., Abarr M., Psarras P., Herber D. R., Quinn J. C., Bandhauer T. M., 2024, Economic Impact of Thermal Energy Storage on Natural Gas Power with Carbon Capture in Future Electricity Markets, *International Journal of Greenhouse Gas Control*, 133, 104098.
14. Silagy, B., Dehghanizadeh, M., Pradyawong, S., Ogden, K., Brewer, C.E., Quinn, J.C., 2023, An economic and environmental assessment of guayule resin co-products for a US natural rubber industry, *Industrial Crops & Products*, 208, 117888.
15. Quiroz, D., Greene, J.M., Limb, B.J., Quinn, J.C., 2023, Global Life Cycle and Techno-Economic Assessment of Algal-Based Biofuels. *Environmental Science & Technology*, 57(31), 11541-11551.
16. Grauberger, B.M., Cole, G.M., Robbins, C.A., Quinn, J.C., Tong, T., Bandhauer, T.M., 2023, Viability of waste heat capture, storage, and transportation for decentralized flowback and produced water treatment. *Applied Energy*, 330, 120342.
17. Antonanzas, J., Idowu, O.J., Ray, D.T., Angadi, S., Grover, K., Seavert, C., Summers, H.M., Quinn, J.C., 2023. Assessment of guar gum production cost and environmental impact in the US Southwest. *Industrial Crops and Products*, 203, 117116.
18. Maynard, R., Burkhardt, J., Quinn, J.C., 2023, Sustainability of lettuce production: A comparison of local and centralized food production, *Journal of Cleaner Production*, 428, 139224.
19. Echenique-Subiabre, I., Greene, J.M., Ryan, A., Martinez, H., Balleza, M., Gerber, J., Jebali, A., Getto, S., O'Kelly, C.J., Mandal, S., Quinn, J.C., Starkenburg, S.R., Corcoran, A.A., Shurin, J.B., 2023, Site-specific Factors Override Local Climatic Conditions in Determining Microalgae Productivity in Open Raceway Ponds, *Algal Research*, 74, 103235.
20. Mostafa, D., Romero, A., Silagy, B., Agnew, J., Holguin, F.O., Quinn, J.C., Smith, A., Ogden, K.L., Brewer, C.E., 2023, Bio-based Insect Repellents from Guayule (*Parthenium argentatum*) Resin, *ACS Sustainable Chemistry & Engineering*, 11(29), 10855-10863.
21. Smith, J., Limb, B.J., Beal, C.M., Banta, K.R., Field, J.L., Simske, S.J., Quinn, J.C., 2023, Evaluating the Sustainability of the 2017 US Biofuel Industry with an Integrated Techno-Economic Analysis and Life Cycle Assessment, *Journal of Cleaner Production*, 413, 137364.
22. Banks, A.B., Chen, P.H., Quiroz-Arita, C., Davis, R.W., Quinn, J.C., 2023, Geographically-resolved evaluation of the economic and environmental services from renewable diesel derived from attached algae flow-ways across the United States, *Algal Research*, 72, 103100.
23. Antonanzas, J., Quinn, J.C., Regional Greenhouse Gas Analysis of Compressor Drivers in Natural Gas Transmission Systems in Canada, *Journal of Cleaner Production* (accepted)
24. Horesh, N., Zhou, Y., Quinn, J., 2023, Home charging for all: Techno-economic and life cycle assessment of multi-unit dwelling electric vehicle charging hubs, *Journal of Cleaner Production* 383, 135551