Connor Andrew Neff

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Last Updated: June 2025

Education

University of Tennessee - Knoxville
Ph.D., Economics — 2022 - 2026 (expected)
M.A., Economics — May 2024

University of Florida
B.A., Economics & Statistics — 2016 - 2020

Fields of Interest

Primary: Energy, Environmental, & Natural Resource Economics
Secondary: Industrial Organization, Urban Economics, Applied Microeconomics

Working Papers

"Lone Star Grid: The Impact of Texas Electricity Interconnection"
with J Scott Holladay
Abstract: Electricity interconnection reduces aggregate production costs, improves reliability, and reduces transmission constraints, yet the Texas electricity grid is isolated from the rest of the United States. We estimate the potential benefits of grid integration by building least average cost and least marginal cost dispatch models to characterize the supply of electricity. We find that Texas's largest population zones connected with neighboring states to the East results in the largest reductions in generation costs. We provide evidence that the two models do not differ substantially in total generation cost change from interconnection. We also show that accounting for fixed costs in the dispatch model allocates generation to units with lower average fixed costs than under least marginal cost dispatch. This change in allocation along the margin results in large differences in emissions impacts. We find that some interconnection scenarios provide large decreases in emissions while others result in higher emissions.

Works in Progress

"Rate Structures and Resource Rents in Municipal Water Pricing"
Abstract: Several studies have analyzed how different rate structures and water utility characteristics influence equity, efficiency, and cost-recovery. The degree to which utilities incorporate the natural capital value of water into rates and costs is relatively unexplored. Using a simple model of dynamic water allocation suggests that increasing block rates reflect the scarcity value of water better than uniform volumetric rates. I construct a novel data set of nearly 200 utilities in Arizona to parameterize the model and analyze how rate structure and utility characteristics impact the extent to which resource rents are reflected in rates.

"Electric Shocks: The Short-run and Long-run Impacts of Power Outages on the Housing Market"
Abstract: Power disruptions are costly to households. How do consumers value power reliability disruptions? I exploit the variation in daily lightning strikes to provide new evidence on the capitalization of power reliability into home values. Ground lightning strikes lead to voltage fluctuations, damage to the electricity distribution network and power outages. Increases in lightning density (strikes per square mile) is associated

with increased outages and decreases in county-level housing prices. I find that the average marginal willingness to pay for a 1 unit reduction in annual outages is about .37% of home price. I also evaluate the short-run impacts of power reliability shocks on short-run housing inventory outcomes. I find that a 10% increase in probability of experiencing at least one monthly outage is associated with as much as a .2% decrease in median listing price.

Presentations

UTK Brown Bag Seminar — 2025

CU Environmental & Resource Economics Workshop, UTK Applied Microeconomics Workshop — 2024

Teaching

University of Tennessee - Knoxville

Instructor

ECON 201: Introductory Economics — Fall 2024
Avg Evaluation: **4.67/5**

Teaching Assistant

ECON 514: Graduate (PhD) Macroeconomic Theory II — Spring 2024
ECON 201: Introductory Economics — 2022-23

Fellowships and Awards

Graduate Fellowship in Ecosystem Valuation, *U.S. Forest Service & ORISE* — 2024
Graduate Assistantship, *UT Knoxville* — 2022 - Current

Computer Skills

Stata, R, Matlab, LaTeX, Python

Professional Experience

Red Bull North America - *Data Analyst* — 2020-21

Citizenship

United States

References

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Casey Wichman
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