Jared Landsman, EIT, LEED AP BD+C

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Managing Consultant

Mr. Landsman joined E3 in 2021 to support the DER group. At E3, Mr. Landsman works primarily on building electrification and decarbonization, from a technical, policy and economic lens. Mr. Landsman has developed a number of models to forecast heat pump adoption, on both a regional and national scale, as well as help cities and states understand the consumer and utility impacts of building electrification. Mr. Landsman also does work in campus decarbonization, helping universities achieve their net zero emissions targets.

Prior to joining E3, Mr. Landsman worked at the MEP engineering firm, Integral Group, leading the Building Performance team, with a focus on energy and carbon modeling, policy and guideline development, and demand forecasting. He has extensive experience with building-scale electrification and decarbonization. Mr. Landsman holds an M.S. in Architecture, Building Science, and Sustainability from the University of California, Berkeley and a B.S. in Civil Engineering from Cornell University.

Recent E3 projects include:

- Confidential Manufacturer, Heat Pump OEM National Electrification Analysis (2021). Technical lead, development of an adoption model for national heat pump market, capturing policy and economic drivers.
- University of California San Diego, Campus Decarbonization Analysis (2021). Project manager, evaluation of decarbonization scenarios for UCSD campus, and cost-benefit analysis of expanded energy storage.
- NYSERDA, New York Building Electrification Roadmap (2021). Analyst, development of an adoption model for New York heat pump market, capturing policy and economic drivers.
- Maryland Commission on Climate Change, Maryland Building Decarbonization Study (2021).
 Analyst, evaluation of building decarbonization scenarios for the state of Maryland, including consumer and utility economic impacts.
- California Air Resource Board, CARB Scoping Plan 2022. Analyst, development of California heat pump market projections for PATHWAYS model.

INTEGRAL GROUP

Oakland, CA 2016-2021

Team Leader, Building Performance Team

- o Directed the Building Performance Team, including business development, resource planning, quality control, technical oversight, project management, and mentorship of junior staff
- Frequently executed zero net energy (ZNE) modeling, code compliance modeling, and LEED modeling for over 2 million sq ft of construction, including lab, office, retail, multifamily res, hotel, government, and higher education

- Created custom tools for electrical and thermal demand forecasting across large building stocks and campuses
- Developed interactive tools for a prominent tech company to optimize and assess the performance of district energy systems, renewables, and batteries to maximize carbon and cost savings for a large building portfolio
- Designed and generated an interactive tool for the University of California to evaluate early-stage new construction projects for energy consumption, utility costs, and carbon emissions
- Assessed the energy, financial, and social implications of proposed changes to the California energy code, Title 24-2019, as part of the Code and Standards Enhancement (CASE) team
- Conducted study of essential envelope and HVAC technologies for achieving zero net energy, as part of the EPIC ZNE Research Roadmap, funded by the California Energy Commission
- Directed study on feasibility of zero net energy affordable housing in the Bay Area, identifying key energy and load reduction strategies, funded by Pacific Gas & Electric
- Developed guidelines and life cycle cost analysis for Zero Net Energy building design in the state of Massachusetts, in partnership with the United State Green Building Council
- Assessed the potential of passive design strategies to abate heat and maintain thermal comfort in public schools across the state of Hawaii, funded by the Hawaii Department of Education

CENTER FOR THE BUILT ENVIRONMENT

Berkeley, CA August 2014 – August 2016

Researcher

- Evaluated "best practice" passive design strategies used in India including natural ventilation, night cooling, solar chimneys, evaporative cooling, and cavity walls by analyzing data collected from residential and commercial buildings for the Center for Building Energy Research and Development (CBERD)
- Examined comfort responses in "business as usual" versus "energy efficient" buildings in India's five key climate zones by administering field studies, comprising of surveys and measurements

Education

University of California, Berkeley
M.S., Architecture, Building Science, and Sustainability

Berkeley, CA 2014

Cornell University College of Engineering B.S., Civil Engineering

Ithaca, NY 2016

<u>Publications</u>

1. Jared Landsman, Gail Brager, Mona Doctor-Pingel (2018) "Performance, prediction, optimization, and user behavior of night ventilation," Energy and Buildings.

Public Presentations

1. Electrification of the Built Environment, AIA COTE Webinar, November 2020.

- 2. Batteries & Electrification: The Key to Unlocking Decarbonization, Integral Group Webinar, May 2020.
- 3. Photovoltaic and Battery Bank Optimization for District Scale Systems, Getting to Zero Forum, October 2019.
- 4. Natural Ventilation Modeling Methodology, ASHRAE SimBuild Conference, September 2019.
- 5. Changing California Code: Finding the Next Savings Opportunities, ASHRAE Bldg Performance Analysis Conference, September 2018.
- Strategies for Passive Survivability in Existing Schools, ASHRAE SimBuild Conference, September 2017.

Industry Affiliations

- o International Building Performance Simulation Association, SFBA Board Member, 3 years.
- o LEED Environmently Quality Technical Advisory Group, Member, 3 years.
- o ASHRAE, member, 5 years.

Citizenship

United States