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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

Boston, MA

Managing Consultant

Vivan has been a member of E3's Climate Pathways and Electrification team since joining the firm in 2020, supporting state agency and utility clients in developing clean heat strategies, focusing on building decarbonization and the future of the gas distribution system. During his tenure at E3, Mr. Malkani has worked on a variety of deep decarbonization projects, primarily in California and New York, exploring the economics of electrification, gas distribution system decommissioning, and customer energy affordability, in both technical and project management roles.

Prior to joining E3, his past work experience includes further building electrification and other energy policy techno-economic modeling during a fellowship at the Natural Resources Defense Council and different research roles at Stanford University, where Mr. Malkani completed his master's degree in Management Science and Engineering and his undergraduate studies in Political Science.

Notable E3 projects include:

- Confidential Client Future of Gas Support (2022 Present). Leading modeling effort characterizing gas utility revenue requirement and rates under deep decarbonization scenarios, focusing on utility cost recovery and customer energy affordability impacts under different longterm technology-policy pathways involving building electrification, hybrid heat pump usage, and clean fuel blending.
- Confidential Client Clean Heat Strategy Support (2022 2023). Project manager leading North East utility strategy consultation exploring technical and economic potential of building electrification and clean fuel blending to meet near- and long-term emission reduction goals. This project included the development of a decarbonization "supply curve" tool for the client characterizing the varying costs of building electrification across different segments of the utility service territory building stock, as well as the costs and resource potential of different renewable natural gas and hydrogen production methods.
- 2022 Scoping Plan Update, California Air Resources Board (2020 2022). Part of modeling team assisting state regulatory agency in establishing a technical roadmap to meeting California's emission reduction goals in 2030 and 2045, using E3's PATHWAYS model. Scenarios explored cost and emission reduction impacts of several sector-specific decarbonization measures, resulting in a proposed set of strategies guiding future policy decisions.
- Building Electrification Roadmap, NYSERDA (2020 2022). Part of modeling team exploring customer and societal economics of building electrification across customer segments in New York state, using "supply curves" to develop technology adoption forecasts under different policy scenarios to inform state building decarbonization strategy.

Natural Resources Defense Council

Schneider Fellow

San Francisco, CA Summer 2018

- Worked with Climate and Clean Energy team on building decarbonization, integrated resource planning and renewable energy procurement.
- Developed a technical potential and economic analysis model to analyze energy savings, emission reduction potential and customer economics of residential electrification measures

Education

Stanford University	Stanford, CA
M.S. in Management Science and Engineering, Energy and Environment Track	June 2020
Stanford University	Stanford, CA
B.A. in Political Science	June 2019