Manfei Wu

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC. San Francisco, CA
Senior Managing Consultant

Manfei Wu joined E3's resource planning practice in 2021. Her work focuses on helping utilities, state agencies, and power market participants in the planning for low-carbon grid and clean energy transition. Her recent projects included supporting the California Public Utilities Commission (CPUC) in integrated system planning, analyzing the infrastructure investment and cost allocation implications of data center growth in the state of Virginia, as well as supporting the Salt River Project in the first of its kind integrated system planning effort.

Prior to joining E3, Ms. Wu worked with ICF's commercial energy and policy and planning team, where she managed projects on power asset valuation, new technology applications, resource planning, and utility procurements. She brings extensive experience in power market fundamental economic analysis, modeling, and forecasting, with an emphasis on evaluating potential pathways for clean energy transition, reliability implications of deep decarbonization, and economic potential for emerging technologies. Prior to ICF, Ms. Wu worked with the Lawrence Berkeley National Laboratory and American Wind Energy Association on a part-time basis. Ms. Wu holds a Master of Public Policy degree from the University of California, Berkeley, a Bachelor's degree in Economics from Peking University, and a B.A. in International Political Economics from Central University of Finance and Economics.

Select E3 projects include:

California Public Utilities Commission, Integrated Resource Plan (2023 – ongoing). Co-project manager for one of the largest resource planning programs in the country. Manages and oversees various technical analysis workstreams within the CPUC IRP, including inputs and assumptions development and documentation, RESOLVE modeling and RESOLVE model updates, RESOLVE and SERVM model calibration, reliability analysis, IRP scenario design, IEPR load forecast and load modifiers analysis, baseline database updates, and procurement program design.

Manitoba Hydro, Integrated Resource Plan (2022 – ongoing). Managed the E3 team to provide strategic advisory support to Manitoba Hydro's Integrated Resource Planning process, including reviewing MH's IRP work plan, inputs and assumptions, modeling framework, modeling results, and the development of strategies and near-term actions concerning both gas and electric system.

Joint Legislative Audit & Review Commission (JLARC), Virginia Data Center Study (2024). Managed the E3 team that developed a comprehensive study to evaluate the impact of data center growth in the state of Virginia on the need for infrastructure investment and customer cost allocations; Led the team to perform reliability and capacity expansion analysis using E3's RECAP and RESOLVE model.
Salt River Project (SRP), Integrated System Plan (2021 – 2023). Supported SRP in the development of its first of a kind Integrated System Plan in the full project cycle, including the development of the ISP work plan, scenario design, modeling and analysis framework, as well as the synthesis of analysis results.

Supported the management of the project and led various technical work streams, interfacing with senior management personnel in various teams in SRP.

Public Service Company of New Mexico, Resilience Analysis and Integrated Resource Plan (2021 – 2023). Managed the E3 team to provide strategic advisory support as PNM examined complex questions addressing thermal retirements, reliability and resilience planning, and transition to a zero-carbon grid by 2040, in its integrated resource plan

Black Hills Energy, Integrated Resource Plan (2021 – 2022). Supported the development of reliability analysis as part of E3's broader support for the integrated resource plan for Black Hills Energy in Colorado.

ICF Fairfax, VA; Beijing, CHINA
Manager, Energy Markets October 2016 – May 2021

- Managed and led consulting engagements in power market analysis and forecasting, asset valuation, new technology applications, resource planning, and utility procurements; worked with a wide range of clients in the power sector, including utilities, project developers, asset owners, investors, and government agencies; rich project experience analyzing the implication of deep decarbonization and power market operation under high renewable penetration scenarios in various markets in the U.S.
- Led and coordinated power market fundamental economic modeling and forecasting using proprietary models and licensed tools including PROMOD, IPM (Integrated Planning Model), and SRAM (Stochastic Resource Adequacy Model). Developed new models to support business expansion and the analysis of emerging power market issues such as storage valuation, real-time price simulation, and ancillary service market analysis.
- Initiated and led business development efforts through report writing, thought leadership, conference speaking, media interviews, and client teach-in sessions.

LAWRENCE BERKELEY NATIONAL LABORATORY Berkeley, CA
Research Associate October 2015 – September 2016

- Performed regression analysis to identify key drivers of performance variation in U.S. utility-scale photovoltaic projects.
- Conducted research and drafted reports on international experience in energy efficiency policy design and governance.
- Analyzed the policy design, implementation, and benefit vs cost implications of the U.S. Clean Power Plan, renewable Portfolio Standard programs, renewable integration policies, and power market deregulation. Summarized policy implications for China and developed policy proposals.

AMERICAN WIND ENERGY ASSOCIATION Washington, DC
Intern/Graduate Student Consultant June – August 2015; January – May 2016

- Assisted in industrial data analysis supporting AWEA's advocacy and member services.

NATIONAL DEVELOPMENT AND REFORM COMMISSION Beijing, CHINA
Intern October 2013 – March 2014

- Supported the development of macroeconomic models to evaluate and project China's coal consumption by end-use sectors under different policy scenarios. Proposed policy recommendations on best approach to reduce coal consumption considering resource and economic constraints.
- Coordinated discussions between government and private companies on low-carbon project implementation under the Public Private Partnerships (PPP) framework.
- Monitored and wrote reports on carbon trading pilot projects in China.

Education

University of California, Berkeley — Berkeley, CA
Master of Public Policy, Energy and Environmental Policy — May 2016

Peking University — Beijing, CHINA
Bachelor of Economics — July 2014

Central University of Finance and Economics — Beijing, CHINA
B.A., International Political Economics — July 2014