Tory Clark

One Broadway, 14th Floor, Cambridge, MA 02142
tory@ethree.com

ENERGY AND ENVIRONMENTAL ECONOMICS, INC. Boston, MA
Partner 2015 – present

Ms. Clark leads E3's Climate Pathways team and advises clients on cost-effective strategies for achieving state, regional, and national decarbonization goals. Areas of expertise include strategies to meet net zero GHG targets, building electrification strategy, and future of natural gas distribution. She has extensive experience with scenario-based models that provide decisionmakers in the U.S. and abroad with accessible, policy-relevant insights with a particular focus on the role of buildings, transportation, electricity generation, and emerging technologies. Her past clients include the New York State Energy Research and Development Authority (NYSERDA), Colorado Energy Office, California Air Resources Board, Maryland Dept. of the Environment, Baltimore Gas and Electric, Oregon Dept. of Environmental Quality, Minnesota Dept. of Transportation, and Xcel Energy. Ms. Clark brings extensive research experience on economy-wide deep decarbonization and professional experience with energy modeling and stakeholder workshop facilitation. Ms. Clark earned an M.S. in Technology and Policy from the Massachusetts Institute of Technology (MIT) and a B.S. in Mechanical Engineering from Tufts University. Recent projects include:

- **North Carolina Decarbonization Pathways, NC Governor's Policy Office (2022-present).** Leading the E3 team developing decarbonization scenarios for the State of North Carolina to meet their net zero GHG goals by 2050. This project includes a focus on coordinating with state agencies and public stakeholders on ongoing policy and planning efforts and exploring opportunities for new mitigation actions that complement federal policy such as the Inflation Reduction Act.
- **Baltimore Gas & Electric Decarbonization Strategy, BGE (2022).** Led the team evaluating alternative decarbonization scenarios that test the value of an integrated gas and electric system in meeting state climate goals. Scenarios vary both the use of the company's gas and electric infrastructure and the mix of technology solutions that customers adopt across sectors and evaluate impacts on total costs, customer impacts, and technology risks.
- **New York Scoping Plan Support, NYSERDA (2019-present).** Advising the ongoing effort to evaluate opportunities and scenarios to achieve statewide CLCPA emissions targets alongside deep decarbonization for the electricity, transportation, and building sectors. E3 is developing innovative analytical tools and scenarios and also supporting stakeholder engagement with the Climate Action Council.
- **Colorado GHG Pollution Reduction Roadmap, Colorado Energy Office (2019-2020).** Managed the E3 team supporting the Colorado Energy Office and other collaborating state agencies. E3 developed decarbonization scenarios within the PATHWAYS and RESOLVE models to explore key opportunities and challenges to reaching climate goals in the State. E3 also supported the state in conducting public stakeholder workshops with support from Center for New Energy Economy (CNEE).
- **Minnesota Decarbonization Pathways Analysis, Xcel Energy Northern States Power (2018-2019).** Managed the E3 team supporting Xcel Energy in the development of its Upper Midwest System Integrated Resource Plan for its IRP filing with the Minnesota Public Utilities Commission. E3 developed economy-wide scenarios for the State of Minnesota to highlight the role of the

electricity sector in helping meet state decarbonization goals. E3 also analyzed the impact of deep decarbonization scenarios on Xcel Energy's Upper Midwest System over the 2020-2034 planning period and identified optimal resource investment portfolios that met resource adequacy needs in the context of state and corporate long-term greenhouse gas reduction targets.

- **Reducing Transportation Sector Emissions, Minnesota Dept. of Transportation (2019).** Managed the E3 team supporting the Minnesota Dept. of Transportation (MnDOT) in developing emissions scenarios to reach statewide emissions targets established by the Next Generation Energy Act (NGEA). Analysis addressed passenger vehicles, trucks, and buses and modeled four categories of measures: efficiency, electrification, non-energy sources, and low-carbon fuels.
- **Maryland Greenhouse Gas Reduction Act Scenarios, Maryland Dept. of the Environment (2017-2020).** E3 is evaluating existing state and federal GHG reduction policies, in partnership with Towson University's Regional Economic Studies Institute (RESI), for the Maryland Dept. of the Environment (MDE). This project involves interpreting and representing state and federal regulations in the PATHWAYS model, developing scenarios of additional mitigation measures for Maryland, and presenting results to the Maryland Mitigation Working Group.
- **Greenhouse Gas Pathways Analysis, New York State Energy Research and Development Authority (2016-2017).** Managed the E3 team supporting the New York State Energy Research and Development Authority (NYSERDA) in developing a detailed greenhouse gas (GHG) analysis to quantify infrastructure and policy changes necessary to meet state goals. E3's climate mitigation analysis evaluates the GHG and cost implications of different scenarios that are consistent with New York's goal of reducing statewide GHG emissions 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050.
- **2030 Target Scoping Plan Update Support, California Air Resources Board (2016-2017).** Worked with the California Air Resources Board (CARB) in developing an updated Scoping Plan in support of their requirements under Assembly Bill 32 (The Global Warming Solutions Act, 2006). E3's statewide greenhouse gas (GHG) mitigation analysis evaluated the GHG and cost implications of different 2030 scenarios that are consistent with the governor's goal of reducing statewide GHG emissions 40% below 1990 levels by 2030. The study results were presented as part of a high-profile stakeholder process, and included extensive public review and comment.
- **Economic Analysis of a Market-Based Carbon Reduction Program in Oregon, Oregon Dept. of Environmental Quality (2016-2017).** Managed work to evaluate economic impacts of adopting a carbon market in Oregon, per the directive of the State Legislature (SB 5701) for Department of Environmental Quality (DEQ). E3's approach involved the combination of a detailed literature review and a quantitative economic analysis.
- **Title 24 Building Codes, California Energy Commission (2016).** Led the E3 effort to update the cost-effectiveness methodology for the 2019 California building code standards that will go into effect in 2020 (Title 24). E3 produced the time-dependent valuation (TDV) metric used to measure the cost-effectiveness of energy efficiency measures for new buildings in California.

MIT ENERGY INTIATIVE Cambridge, MA
Research Assistant 2013 – 2015

- Research focus on U.S. and international policy related to carbon capture and storage and emerging technologies.

STOCKHOLM ENVIRONMENT INSTITUTE Somerville, MA
Staff Scientist 2008 – 2013

- Supported 4000+ active users of the LEAP (Long-range Energy Alternatives Planning) software system through online forums, training materials, and week-long software training workshops. Training workshops were conducted in 9 countries in English and Spanish to an audience of academics, government officials, and utilities.
- Managed consulting projects for clients interested in climate scenario modeling, including for the Mexican National Institute of Ecology and Massachusetts Department of Environmental Protection

Education

Massachusetts Institute of Technology Cambridge, MA
M.S., Technology and Policy June 2015

Tufts University Medford, MA
B.S., Mechanical Engineering June 2008

Authored Papers

1. "Preliminary Economic Outlook for California Residential ZNE" ACEEE Summer Study on Energy Efficiency in Buildings. 2016. Available online: http://aceee.org/files/proceedings/2016/data/papers/10_1071.pdf
2. "Assessment of the US EPA's determination for the role of CO_2 capture and storage (CCS) in new fossil-fuel power plants" Environmental Science & Technology. 2014. Available online: http://pubs.acs.org/doi/abs/10.1021/es501748r
3. "Can 'stranded' fossil fuel reserves drive CCS deployment?" Energy Procedia. 2014. Available online: http://www.sciencedirect.com/science/article/pii/S1876610214025776