

Program Planning, Measurement, and Evaluation



WHAT IS MEASUREMENT AND EVALUATION?

Measurement and evaluation (M&E) frameworks provide a way to develop and implement public policy holistically and rigorously. The ideal way to go about evaluation is from a Performance Management Cycle approach, where results of evaluation activities have a clear connection to strategic planning.

M&E is often applied retrospectively to understand, quantify, and monetize public policy outcomes. Impact evaluations examine the extent to which program activities have been successful in accomplishing their objectives, and why. Impact evaluations examine attribution: the extent to which outcomes observed were caused by the program versus rival factors. Process evaluations examine how the program is being implemented; they often provide an opportunity to make midcourse corrections.

M&E can be applied prospectively to improve program strategy and implementation. Prospective work includes goal setting, strategic planning, logic modeling, metrics development, establishing data collection protocols, information management needs, and formative evaluation.

Many evaluation approaches are scalable to policy/program needs and available budgets. Also, clients and programs do not need perfect data to benefit from evaluative methods. IEC often mixes methods within a single evaluation and uses other creative analytical approaches to bridge data gaps.

Performance Management Cycle



PROJECT EXAMPLE

For the U.S. DOE's Office of Energy Efficiency & Renewable Energy, IEC is conducting an impact evaluation of the Building America program's investments in residential energy efficiency technologies and practices, including an evaluation of energy savings, health and energy security impacts, market transformation, knowledge benefits, and cost-effectiveness.

ENERGY AND ENVIRONMENTAL EVALUATION EXPERIENCE

IEc brings its rich experience in M&E to the energy evaluation sector. IEc has 20 years of environmental program evaluation experience including over 80 evaluations for US EPA.

Environmental endpoints are some of the most difficult to evaluate because they often occur long after the intervention and have many rival factors. IEc applies a range of tools and approaches to evaluate environmental endpoints.

Programs that save energy have a multitude of non-energy impacts (NEIs); IEc has the expertise to capture and monetize them.

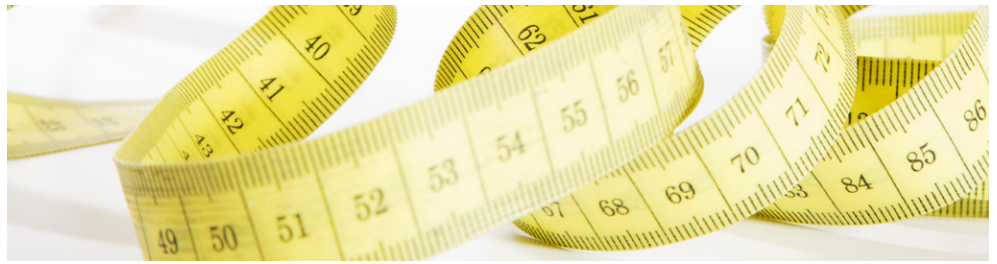
Examples of NEIs that our interdisciplinary team of economists, risk assessors, financial analysts, and other experts can quantify include:

- Health benefits
- Social cost of carbon
- Distributional benefits to low and moderate income populations
- Community livability/sustainability benefits

IEc regularly works with large sets of energy data and to apply IPMVP protocols; however, we are equally comfortable evaluating energy efficiency and renewable energy policies and programs that do not fit into typical energy program intervention types, and that do not generate a wealth of utility and other energy data.

EVALUATION SERVICES

- Strategic planning and organizational development
- Logic modeling
- Evaluation readiness screening
- Formative, process, market, and impact evaluations
- Quasi-experimental and experimental designs
- Mixed-methods evaluation
- Continuous/real-time evaluation
- Participatory evaluation
- Managing evaluation peer-review processes
- Evaluation data information management
- Evaluation report development
- Cost-effective data collection plans, which can combine existing performance measurement or secondary data with the collection of new data through surveys, focus or discussion groups, and/or interviews
- Communication and data visualization of evaluation results to diverse stakeholders (e.g., decision-makers, partners, and the public)
- Evaluation guidelines development
- Trainings on evaluation-related topics, including planning for and managing the evaluation process, logic modeling, and statistical techniques
- Performance measures development and communication



IEc Evaluation Specialties

- Energy efficiency and renewable energy programs
- Environmental protection programs
- Sustainability programs, including sustainable purchasing
- Technology R&D, commercialization, and market stimulation programs
- Economic development and business assistance programs
- Grant and loan programs
- Regulatory enforcement and compliance strategies
- Programs in need of business process improvements

Representative Clients

FEDERAL

- Department of Energy
- Environmental Protection Agency
- Department of Labor
- Fish and Wildlife Service
- Small Business Administration

INTERNATIONAL

- Natural Resources Canada
- United Nations Environment Programme (UNEP)
- Global Environment Facility

NGO

- Moore Foundation
- National Governors Association
- ClimateWorks Foundation

STATE

- California Energy Commission
- New York State Energy Research & Development Authority (NYSERDA)
- Georgia Department of Natural Resources
- Massachusetts Department of Energy Resources
- Massachusetts Department of Transportation
- Oregon Department of Energy
- Virginia Department of Environmental Quality
- Washington Department of Ecology

UTILITIES

- Eversource
- United Illuminating
- Concord Municipal Light Plant

PRIVATE SECTOR (for measurement)

- Dunkin' Brands

Staff



Angela Vitulli, Principal, has seventeen years of experience in environmental and energy policy, specializing in program design, measurement, and evaluation. She has managed a multi-year, multi-million dollar contract for NYSERDA to evaluate the Agency's R&D, commercialization, and market development programs. Ms. Vitulli has extensive expertise in impact, market, process, and formative evaluation, and is known for using creative but rigorous mixed-methods approaches to address common analytical challenges including overcoming data gaps, baselining problems, non-standardized interventions, and attribution analysis within complex systems. She has consulted with US EPA, DOE, GSA, Natural Resources Canada, MA DOER, and several other government and private sector clients to improve energy efficiency, renewable energy, green building, green procurement, and other market transformation programs.

*Master of Arts in Urban and Environmental Policy, Tufts University
Bachelor of Arts in Political Science, Tulane University, Phi Beta Kappa*



Cynthia Manson, Principal, has over 20 years of experience specializing in integrating economic and financial principles and methods into market and policy analysis and program evaluation. She has focused on documenting and attributing program impacts in data-poor environments, and measuring complex system changes such as market transformation in clean tech and energy markets. Ms. Manson directs a suite of economic, strategy, and evaluation support for NYSERDA under both IEC's Flexible Energy Technology Analysis and Technology & Market Development Evaluation Contracts. Other efforts include high-profile regulatory and market analyses for federal clients, and economic analyses and evaluations for Oregon and Massachusetts.

*Master of Business Administration and Master of Science, Natural Resources Policy and Management, University of Michigan
Bachelor of Arts in History, Yale University*



Daniel Kaufman, Principal, has over ten years of experience specializing in environmental and energy program evaluation, performance measurement, and policy analysis. He has managed and conducted all manner of evaluations, including formative, process, market, outcome, impact, and "real-time" developmental evaluations. Mr. Kaufman specializes in mixed-methods evaluations of complex programs in data-poor environments. He regularly designs, conducts, and facilitates interviews, focus groups, logic modeling sessions, evaluation readiness reviews, market baseline and impact research, indicator development and tracking, cleaning and coding of data, and report production. Mr. Kaufman has specialized experience in evaluation of renewable energy, energy efficiency, and market development programs.

*Master of Arts in International Economics and Finance, Brandeis International Business School
Bachelor of Arts in Economics and Politics, Brandeis University, magna cum laude*



Nora Scherer, Senior Associate, has nine years of experience in the fields of program evaluation, performance measurement, and the development and implementation of various survey methodologies. She has focused on designing and implementing surveys, questionnaires and interview guides, including on-site, mailed, and stated preference, to model recreational behavior for human health risk assessments and natural resource damage assessments, and to support program evaluations. Ms. Scherer has extensive experience designing questionnaires; designing and assigning population, sample, treatment and control groups; effectively managing data collection efforts; and providing thoughtful statistical analyses to bolster evaluations and other research efforts.

*Master of Pacific and International Affairs, School of International Relations and Pacific Studies, University of California San Diego
Bachelor of Arts in Economics and Environmental Studies, Macalester College*



Christine Lee, Special Consultant, has fifteen years of experience in examining the economic impacts and evaluating the effectiveness of environmental and energy regulations, policies, and programs. She specializes in assisting public sector decision makers to develop and implement evaluation and decision support frameworks designed to increase transparency and improve stewardship of public resources. Ms. Lee has applied her skills in a wide range of projects for a diverse array of federal, state and local agencies, including NYSERDA, NYDPS, US EPA, US DOJ, US DOI, and CA CEC.

*Master of Environmental Management, Yale University
Bachelor of Science in Ecology, Behavior and Evolution, University of California at San Diego*

Staff



Catherine Foley, Senior Associate, has over three years of experience in environmental program evaluation, performance measurement, and environmental analysis. She has experience in environmental planning, network science, clean energy, climate change and adaptation, water quality, green infrastructure, GHG measurement, and the community visioning process. Ms. Foley's skills include survey development, analyses of qualitative information, facilitation and consensus building, statistical analyses, and GIS analysis and map-making.

Master of Public Administration, the Maxwell School at Syracuse University

Master of Science in Environmental Science, SUNY College of Environmental Science and Forestry

Bachelor of Arts in Environmental Studies, Vassar College



Rachel Mak, Associate, specializes in energy analysis, process and impact evaluation, life cycle assessment, financial analysis, and clean energy and energy efficiency strategy. She conducts in-depth market research as well as surveys and expert interviews to inform evaluation analyses. She focuses on synthesizing market research and interview findings to determine program impact and identify areas to improve program processes.

Master of Arts in Environmental Management, Yale School of Forestry

Master of Business Administration, Yale School of Management

Bachelor of Arts, cum laude, in Environmental Science and Public Policy, Harvard College



Sahil Gulati, Associate, is a licensed civil engineer (California) with a background in public policy and economics. He applies his technical background and quantitative skills to assist clients in the energy, environment, and climate change sectors. For the U.S. Department of Energy, Mr. Gulati is involved in the evaluation of the Building America and Building Energy Codes Programs (BECP). He is evaluating BECP's role in bringing energy efficient code changes in the residential portion of the International Energy Conservation Code (IECC) using attribution analysis.

Master of Public Administration in Development Practice, Columbia University

Master of Science in Civil and Environmental Engineering with a Minor in Economics, San Jose State University
