



PHILIP H. MOSENTHAL, PARTNER

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PROFESSIONAL EXPERIENCE

Optimal Energy, Hinesburg, Vermont. *Founding Partner*, 1996-present

As the Founding Partner Mr. Mosenthal is responsible for business development as well as direct consulting and analysis for numerous electric and gas utilities, government entities and other non-utility parties on energy efficiency, resource planning, regulatory issues, program design, and evaluation and market assessments. Mr. Mosenthal has over 30 years' experience in energy efficiency consulting, including facility energy management, utility and state planning, regulatory policy, program design, implementation, evaluation, and research. He has particular expertise in efficiency regulatory policy, assessment and integrated analysis of demand-side energy resources, valuation of energy resources and cost-benefit analysis, and program planning, design and evaluation. Mr. Mosenthal has developed numerous utility, state, and regional integrated resource and DSM plans, and has designed and evaluated energy efficiency programs throughout North America, Europe, and China. He has also led numerous efficiency and renewables potential studies and is a nationally recognized expert on efficiency resource assessment and valuation. Mr. Mosenthal has played key roles in many utility-stakeholder processes and successfully worked to build consensus among diverse parties in various assignments. This work has included leading policy and planning initiatives related to goal setting, EM&V frameworks, cost recovery, and performance incentives. Mr. Mosenthal has testified before numerous regulatory commissions, state legislatures, and the U.S. Nuclear Regulatory Commission. Mr. Mosenthal also has designed program implementation procedures, managed implementation contracts, trained efficiency program and planning staff, and performed numerous commercial and industrial facility energy efficiency analyses for end users.

Resource Insight, Middlebury, Vermont. *Senior Research Associate*, 1995-1996

Xenergy, Incorporated (now DNV-GL), Allendale, New Jersey. *Chief Consultant*, 1990-1995

EDUCATION

University of Pennsylvania, Philadelphia, Pennsylvania
Master of Science, Energy Management and Policy, 1990

University of Pennsylvania, Philadelphia, Pennsylvania
Bachelor of Arts, Design of the Environment, 1982

REPRESENTATIVE PROJECT EXPERIENCE

New Hampshire Office of Consumer Advocate, Technical Consulting Services Related to Policy, Program Planning, and Stakeholder Engagement (2015 - present)

Since 2015 Optimal Energy has engaged with the NH OCA to support all of its engagement as part of the Energy Efficiency & Sustainable Energy Board, which was created by the NH legislature "to promote and coordinate energy efficiency, demand response, and sustainable energy programs in the state." Mr.

Mosenthal serves as the project manager. Through this engagement, Optimal has played a leadership role in the development of all gas and electric DSM efforts in New Hampshire, and has participated in numerous working groups including ones related to cost recovery and lost revenue policy and estimation, performance incentive design, DSM plan development and program design, and EM&V. Key areas of focus have included: designing NH's first Energy Efficiency Resource Standard (EERS) and negotiated its initial targets; analyzing and critiquing the methods for calculating lost revenue and its subsequent reform; negotiating policy issues around cost recovery practices related to lost revenue and amortization of program costs; design and implementation of performance incentive mechanisms; critical review, negotiations, and testimony on the utility gas and electric plans; development and updates of the TRM and other EM&V issues; critical review and negotiations on efficiency potential and baseline studies; and analyzed and made recommendations on electric grid modernization (the latter through Optimal's subcontractor).

Illinois Office of the Attorney General, Advisor on Energy Efficiency Policy, Planning, Design, Implementation and Evaluation (2007 – present)

Mr. Mosenthal has served as the project manager and lead advisor to the Illinois Office of the Attorney General on all aspects relating to development and on-going participation in a statewide utility collaborative process, establishment of statewide energy efficiency policies and frameworks, development of statewide legislation, program planning, design, implementation, evaluation, and general oversight of utility electric and gas efficiency programs throughout Illinois. In this role, Mr. Mosenthal played a leadership role in the development of a statewide collaborative stakeholder process with the utilities and other parties, on behalf of the IL AG, and continues to be a lead technical consultant in this collaborative. Mr. Mosenthal has also assisted with development of legislative and regulatory laws and policies (including the most recent statute establishing a cost recovery and shareholder performance incentive model), provided expert testimony in numerous dockets before the Illinois Commerce Commission, assisted in development of grid modernization rules and policies, and worked on electric procurement issues related to the Illinois Power Agencies resource procurement process and mechanisms.

Massachusetts Energy Efficiency Advisory Council, Technical Consulting Services (2006 – present)

Optimal Energy has led the Technical Consultant team for the Massachusetts Energy Efficiency Advisory Council (EEAC) since its inception in 2006. Mr. Mosenthal has served in various roles on this team, including overall Team Manager, Team lead for the commercial and industrial sector, and senior advisor on efficiency policy, planning, programs, and EM&V. Optimal's role includes representing the EEAC on all aspects of negotiating efficiency policies, programs, plans, goals and budgets with the program administrators, and oversight of all program implementation and evaluation, monitoring and verification activities. Prior to the EEAC's inception, Mr. Mosenthal served in a similar role as a manager and lead for the C&I sector on numerous Massachusetts' Utility Collaboratives working directly with the utilities on behalf of the non-utility parties, from 1998-2006.

New Jersey Board of Public Utilities, Potential Study and Consulting Services (2019-present)

New Jersey's 2018 Clean Energy Act mandates delivery of aggressive efficiency efforts, the development of all policies and administrative and EM&V frameworks to guide efficiency, and the completion of an energy efficiency potential study to inform the Board as it establishes savings goals and other metrics. Mr. Mosenthal is an integral part of the team, working on the assessment of potential, and leading work on the establishment of targets and performance incentives / penalties, EM&V framework, and cost-effectiveness policies.

Rhode Island Energy Resource Management Council, Technical Consulting for the Energy Resource Management Council (2006 – present)

Optimal Energy has led the Technical Consultant team for the Rhode Island Energy Resource Management Council (ERMC) since its inception in 2006. Mr. Mosenthal has served in various roles on this team, including as the team lead for the commercial and industrial sector, and senior advisor on policy, planning, programs, and EM&V. Optimal's role includes representing the ERMC on all aspects of negotiating efficiency policies, plans, programs, goals and budgets with National Grid, the program administrator. We also provide oversight of all program implementation and evaluation, monitoring and verification activities.

Natural Resources Defense Council, Efficiency Assessment and Development of a New Policy Framework and Targets for a New Gas and Electric Efficiency Resource Standard for New York State (2018)

Mr. Mosenthal was the project manager and lead investigator in development of a proposal in support of New York State Governor Cuomo's plans to announce new efficiency resource policy and goals. This project included proposing an aggressive new EERS for achieving electric efficiency savings of 3% per year and gas efficiency savings of 1.5% per year. In addition, it developed a new all fuels EERS framework and shareholder incentive recommendations that would encourage not only efficiency but also beneficial electrification of existing fossil fuel fired thermal loads. This project also included engagement with senior State Government. This proposal was largely adopted by New York State and announced by Governor Cuomo on Earth Day 2018. It has led to New York having the most aggressive electric efficiency goals in the U.S., as well as an innovative new beneficial electrification policy and goals from heat pump deployment in lieu of gas and oil energy systems.

Net-To-Gross Ratios for Eversource MA in 2021

Program	End Use	NTG
A1a - Residential New Homes & Renovations	HVAC	0.98
A1a - Residential New Homes & Renovations	Hot Water	0.99
A1a - Residential New Homes & Renovations	Lighting	0.25
A2a - Residential Coordinated Delivery	HVAC	0.87
A2a - Residential Coordinated Delivery	Hot Water	1.01
A2a - Residential Coordinated Delivery	Lighting	0.70
A2a - Residential Coordinated Delivery	Process	1.00
A2a - Residential Coordinated Delivery	Envelope	1.19
A2a - Residential Coordinated Delivery	Refrigeration	1.09
A2c - Residential Retail	HVAC	0.91
A2c - Residential Retail	Hot Water	0.84
A2c - Residential Retail	Lighting	0.32
A2c - Residential Retail	Process	0.52
A2d - Residential Behavior	Behavior	1.00
B1a - Income Eligible Coordinated Delivery	HVAC	1.00
B1a - Income Eligible Coordinated Delivery	Hot Water	1.00
B1a - Income Eligible Coordinated Delivery	Lighting	1.00
B1a - Income Eligible Coordinated Delivery	Process	1.00
B1a - Income Eligible Coordinated Delivery	Envelope	1.00
B1a - Income Eligible Coordinated Delivery	Refrigeration	1.00
B1a - Income Eligible Coordinated Delivery	Behavior	1.00
C1a - C&I New Buildings & Major Renovations	HVAC	0.95
C1a - C&I New Buildings & Major Renovations	Lighting	0.79
C1a - C&I New Buildings & Major Renovations	Process	1.02
C1a - C&I New Buildings & Major Renovations	Envelope	1.02
C1a - C&I New Buildings & Major Renovations	Refrigeration	1.02
C1a - C&I New Buildings & Major Renovations	Motors/Drives	1.02
C1a - C&I New Buildings & Major Renovations	Custom Measures	1.00
C1a - C&I New Buildings & Major Renovations	Compressed Air	1.01
C2a - C&I Existing Building Retrofit	HVAC	0.92
C2a - C&I Existing Building Retrofit	Hot Water	0.92
C2a - C&I Existing Building Retrofit	Lighting	0.94
C2a - C&I Existing Building Retrofit	Process	0.92
C2a - C&I Existing Building Retrofit	Refrigeration	0.92
C2a - C&I Existing Building Retrofit	Motors/Drives	0.93
C2a - C&I Existing Building Retrofit	Custom Measures	0.92
C2a - C&I Existing Building Retrofit	Compressed Air	0.94
C2b - C&I New & Replacement Equipment	HVAC	0.64
C2b - C&I New & Replacement Equipment	Lighting	0.66

C2b - C&I New & Replacement Equipment	Process	0.91
C2b - C&I New & Replacement Equipment	Refrigeration	0.91
C2b - C&I New & Replacement Equipment	Motors/Drives	0.88
C2b - C&I New & Replacement Equipment	Compressed Air	0.89
C2b - C&I New & Replacement Equipment	Food Service	0.86

At its September 18th meeting the EESE Board discussed the role of its EERS Committee between planning periods and the structure and timeline for developing the next EERS plan. At its October 16th meeting, the EESE Board voted unanimously (with PUC staff abstaining from the vote) in support of the following recommendations and to communicate them directly to the Commission in docket DE 20-092. The EESE Board makes the following recommendations:

The EERS Committee should remain active and engaged in program review, energy efficiency working groups, and any mid-term modifications.

In order to facilitate this participation, the EERS Committee should continue to have access to consultant services on an on-going basis between planning periods.

The planning timeline for the 2024 and beyond plan should consider that current New Hampshire law would require legislative approval of future increases in the System Benefits Charge to fund energy efficiency. Therefore, the EESE Board proposes the following process:

December 2020 – EESE Board revises charter of EERS Committee as necessary and appoints members of the Committee, to serve during the next triennium.

January 2021-February 2021 – EERS Committee develops request for proposals (RFP) for issuance to potential consultants.

March 2021 – RFP issued by one of the stage agencies represented on the EERS Committee

May 2021 – Winning bidder selected, contract signed, submission to Governor & Executive Council for Approval

July 2021 – Consultant on board and begins work with EERS Committee.

September 2022-November 2022 – EERS Committee works with program administrators to determine and propose EERS savings goals, associated budgets, and SBC rates for 2024-2026 triennium.

December 2022 – The EESE Board and EERS Committee work with program administrators to initiate General Court approval of the proposed SBC rate.

January 2023 – June 2023 – EERS Committee meets to develop EERS plan including priorities, programs, and measures.

July 2023 – EERS plan is submitted to the Commission and adjudicative docket begins.

December 2023 – Order issued by the Commission on EERS plan.

Additional considerations for 2024 and beyond planning process:

- PUC Staff's role and engagement in the collaborative planning process must be clarified.
- The facilitator and consultant contract for the planning process should be with a state agency other than PUC staff such as OCA, DES, OSI, &c.
- The Commission should clarify that no violation of RSA 91-A occurs when EERS Committee members caucus outside of formal EERS Committee meetings since no decisions are made during such caucuses.