

Technical Conference

NEPR-AP-2023-0003

May 7, 2025



Energy+Environmental Economics

Zachary Ming, Partner
Ari Gold-Parker, Director

Tara Hamilton, Senior Managing Consultant

Agenda

1. Introductions
2. Rate design objectives
3. Rate design reforms to support objectives
4. Data, system, and analysis needs to support rate design reforms
 1. Embedded and Marginal COSS
 2. AMI implementation
 3. Additional data, systems, or analysis needs

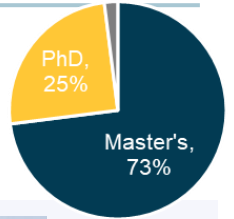
Example Box

Examples in boxes like this are provided by E3 as a starting point for discussion. They do not represent the views of the PREB

Who is E3?

Thought Leadership, Fact Based, Trusted.

100+ full-time consultants | 30 years of deep expertise | Engineering, Economics, Mathematics, Public Policy...



San Francisco



New York



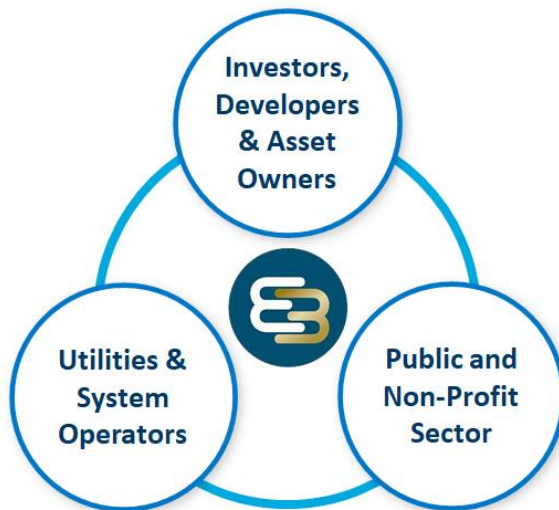
Boston



Calgary

E3 Clients

300+
projects
per year
across our
diverse
client base



Recent Examples of E3 Projects

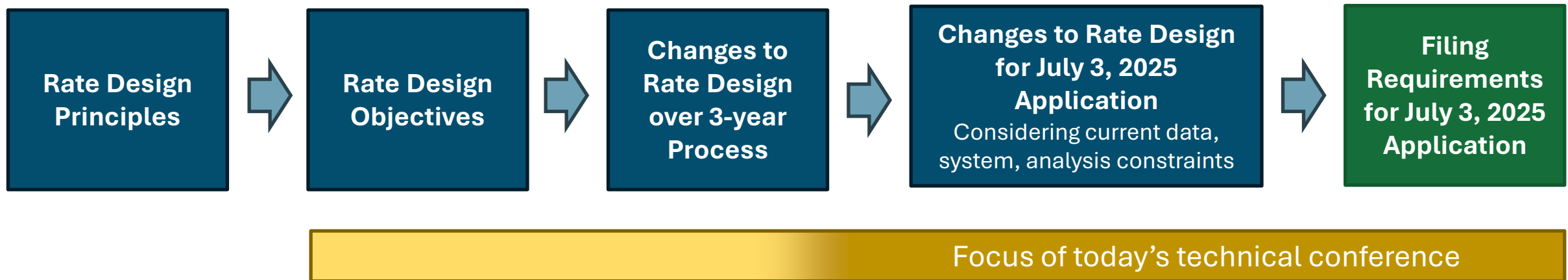
Led process for California Public Utilities Commission to evaluate alternatives to net energy metering successor tariff options

Performed cost allocation study for New Brunswick Power and testified before the provincial regulator on findings

Developed rate design best practices whitepaper for Energy Systems Integration Group

Submitted testimony to the Federal Energy Regulatory Commission on ideal rate designs for large loads to ensure fair cost allocation and economic efficiency

Process to develop filing requirements



Rate design objectives

+ What does LUMA see as the key objectives for the rate design phase of this proceeding?

Example Rate Design Objectives

1. Provide customers with prices that encourage economically efficient use, including time-varying signals
2. Ensure that all customers, including those who have developed self-supply or have procured third party supply, contribute fairly to the costs of the electric system and do not raise costs for other ratepayers
3. Support energy affordability for low-income customers
4. Understand bill impacts of rate design changes on different customer groups

Rate design reforms

+ What changes to rate design is LUMA considering:

- In the longer-term (i.e. 3 years)
- For LUMA's July 3, 2025 application

Example Rate Design Reforms

1. Increase alignment of customer charges with system fixed costs
2. Introduction of modest demand charges for residential customers
3. Introduction of TOU for residential customers, expansion of TOU rates for C&I customers
4. Simplification of rates by reducing number of rate classes

Data, systems, and analyses to support rate design reforms

+ What data system, systems, or analyses are needed to support the proposed rate design reforms

- In the longer-term (i.e. 3 years)
- For LUMA's July 3, 2025 application

Example Data and System Needs for Rate Design Reforms

1. Updated Embedded COSS
 - Can inform design of fixed and demand charges
2. Updated Marginal COSS
 - Can inform design of fixed and demand charges, development of TOU periods
3. AMI implemented for all customers
 - Needed for TOU rate implementation across customer classes. Pilot TOU rates could be tested before full implementation is complete.
4. Bill impacts analysis for customer classes and groups of customers within classes
 - Needed to inform impacts of proposed rate design changes on different customer groups and weigh trade-offs between rate design principles

Embedded and Marginal COSS

- 1. In its *Rate Review – Phase 1 Report**, LUMA described the development of a load research program to “accurately reflect the consumption patterns of the customers in each rate class, and other characterizations such as net metering.”**
 - a) What is the status of the load research program? If not completed, what are the estimated timelines?
 - b) Does LUMA now have hourly or sub-hourly representative load profiles for each customer rate class?
- 2. In Appendix A of its *Rate Review – Phase 1 Report**, LUMA explained for Regulation 8720 filing requirements G-1, G-2, and G4 (related to the embedded Cost of Service Study (COSS) and cost allocation) that it “intends to file a modified cost of service analysis that uses direct allocation of costs wherever possible.”**
 - a) Please confirm that LUMA plans to file a “modified cost of service analysis” with its rate design application on July 3, 2025.
 - b) Will the updates to the load research program discussed be incorporated into the “modified cost of service analysis?”
 - c) Briefly describe the ongoing limitations of the cost of service analysis.
 - d) Please clarify if LUMA has been working on both Embedded and Marginal COSS and intends to file both.

*LUMA, Rate Review – Phase 1 Report as attachment to Motion in Compliance with June 30th Resolution and Order – Submission of Phase 1 Report, filed October 4, 2023 in NEPR-AP-2023-0003

AMI Implementation

1. In its *Rate Review – Phase 1 Report and Annual Budgets FY2024 – FY2026**, LUMA estimates that its AMI Implementation Program will begin in Q1 2025.
 - a) Has the AMI Implementation Program begun? If not, what is the updated timeline?
 - b) What is the targeted completion date for installation of all:
 - i. Residential meters?
 - ii. C&I meters?

*LUMA, Annual Budgets Fiscal Years 2024 to 2026, May 16, 2023

Bill impact analysis and ability to file multiple rate options

+ What is LUMA's ability to analyze bill impacts for:

- Each customer class?
- Different kinds of customers within customer classes, e.g., customers with different usage levels?
- NEM customers?

+ What is LUMA's ability to file multiple proposed rate options for some customer classes on July 3, 2025? For example:

- A residential rate with an increased customer charge
- A residential rate with a modest demand charge
- A residential rate with increased customer and demand charges