



# LEI Semi-Annual Regional Market Update and 10-Year Energy and Capacity Price Forecast

## New England

3<sup>rd</sup> Quarter 2023

717 Atlantic Avenue, Suite 1A  
Boston, Massachusetts 02111  
Tel: (617) 933-7200  
Fax: (617) 933-7201

390 Bay Street, Suite 1702  
Toronto, Ontario M5H 2Y2  
Tel: (416) 643-6610  
Fax: (416) 643-6611

[www.londoneconomicspress.com](http://www.londoneconomicspress.com)

### Description of Report

*London Economics International LLC (LEI) provides semi-annual regional market updates and 10-year energy price forecasts for major markets in North America and around the world. In addition to providing price projections, the reports highlight major developments in each of the regions as well as the underlying structural dynamics. LEI also provides more detailed regional market price forecasts tailored to a client's individual needs, including longer time horizons and forecasting of plant-specific revenues or the impact of structural or market design changes.*

### Disclaimer

*The contents of this report do not constitute investment advice. The provision of analysis by LEI does not obviate the need for an investor to make further appropriate inquiries as to the accuracy of the information included herein, and to undertake his/her own analysis and due diligence. This report is not intended to be a complete and exhaustive analysis of all the factors impacting the regional market. LEI, its officers, employees, and affiliates make no representations, warranties, or recommendations.*

# Table of contents

<b>1</b>	<b>MARKET OVERVIEW AND RECENT DEVELOPMENTS</b> .....	<b>4</b>
1.1	GENERATION AND CAPACITY .....	5
1.2	KEY ISSUES IN NEW ENGLAND .....	6
1.3	MAJOR MARKET DEVELOPMENTS IN ISO-NE .....	12
<b>2</b>	<b>MODELING ASSUMPTIONS</b> .....	<b>27</b>
2.1	MARKET TOPOLOGY.....	27
2.2	FUEL PRICE PROJECTIONS.....	28
2.2.1	<i>Natural gas</i> .....	29
2.2.2	<i>Oil</i> .....	30
2.3	CARBON ALLOWANCE COSTS .....	31
2.4	DEMAND FORECASTS.....	32
2.5	IMPORT AND EXPORT FLOWS .....	35
2.6	COST OF NEW ENTRY .....	36
2.7	EXISTING SUPPLY .....	37
2.7.1	<i>New entry</i> .....	37
2.7.2	<i>Retirements</i> .....	39
2.7.3	<i>Supply and demand mix</i> .....	41
<b>3</b>	<b>10-YEAR PRICE FORECAST</b> .....	<b>44</b>
3.1	ENERGY MARKET PRICES.....	44
3.2	CAPACITY MARKET PRICES .....	45
<b>4</b>	<b>APPENDIX A: OVERVIEW OF FORECASTING METHODOLOGY</b> .....	<b>48</b>
4.1	OVERVIEW OF THE ENERGY MARKET FORECASTING MODEL.....	48
4.2	OVERVIEW OF THE CAPACITY MARKET FORECASTING MODEL .....	49
<b>5</b>	<b>APPENDIX B: INTRODUCTION TO LEI AND ITS WORK IN ISO-NE</b> .....	<b>52</b>

## List of figures

FIGURE 1. INSTALLED CAPACITY AND GENERATION BY FUEL AS OF END-2022.....	5
FIGURE 2. INSTALLED CAPACITY AND GENERATION BY SUPPLIER AS OF END-2022.....	6
FIGURE 3. CURRENT STATE DECARBONIZATION POLICIES AND ASPIRATIONAL GOALS IN NEW ENGLAND.....	10
FIGURE 4. STATE RPS FOR CLASS I OR RENEWABLE ENERGY.....	11
FIGURE 5. SUMMARY OF RECENT DEVELOPMENTS AND POTENTIAL PRICE IMPACTS.....	13
FIGURE 6. STATE PROCUREMENT INITIATIVES FOR LARGE-SCALE CLEAN ENERGY RESOURCES.....	15
FIGURE 7. STATUS OF OFFSHORE WIND DEVELOPMENT PROJECTS IN NEW ENGLAND.....	17
FIGURE 8. REGIONAL TRANSMISSION INTERFACE LIMITS.....	28
FIGURE 9. MODELED FUEL PRICES.....	29
FIGURE 10. MODELED NATURAL GAS PRICES.....	30
FIGURE 11. MODELED OIL PRICES.....	31
FIGURE 12. MODELED ALLOWANCE PRICE.....	32
FIGURE 13. ISO-NE NET SUMMER AND WINTER PEAK DEMAND FORECASTS (INCLUDING IMPACT OF EE, BEHIND THE METER SOLAR PV, EV, AND SPACE HEATING).....	33
FIGURE 14. ISO-NE NET ENERGY CONSUMPTION FORECAST (INCLUDING IMPACT OF EE, BEHIND THE METER PV, EV, AND SPACE HEATING).....	34
FIGURE 15. FORECASTED PEAK DEMAND (MW).....	35
FIGURE 16. FORECASTED CONSUMPTION (GWH).....	35
FIGURE 17. PROJECTED NET IMPORTS INTO NEW ENGLAND (GWH).....	36
FIGURE 18. GROSS CONE BY TECHNOLOGY (\$/KW-MONTH).....	37
FIGURE 19. ISO-NE FORECASTED BEHIND-THE-METER PV NAMEPLATE CAPACITY IN CELT 2017-2023.....	38
FIGURE 20. NEW ENTRANTS IN LEI'S FORECAST (NAMEPLATE CAPACITY, MW).....	39
FIGURE 21. RETIREMENTS IN LEI'S FORECAST (NAMEPLATE CAPACITY, MW).....	40
FIGURE 22. REGION-WIDE SUPPLY AND DEMAND BALANCE.....	42
FIGURE 23. INDICATIVE INTERNAL SUPPLY CURVE OF NEW ENGLAND RESOURCES FOR 2029.....	43
FIGURE 24. FORECAST OF ANNUAL AVERAGE ENERGY MARKET PRICES, 2024 THROUGH 2033.....	44
FIGURE 25. HISTORICAL AND FORECAST MARKET HEAT RATES, 2018 THROUGH 2033.....	45
FIGURE 26. HISTORICAL AND FORECASTED CAPACITY MARKET PRICES, 2024 THROUGH 2033 (\$/KW-MONTH).....	46
FIGURE 27. POOLMOD'S TWO-STAGE PROCESS.....	48
FIGURE 28. ILLUSTRATIVE EXAMPLE OF THE MRI DEMAND CURVE FOR FCA #14.....	49
FIGURE 29. ILLUSTRATION OF SENE DEMAND CURVES FOR FCA #14.....	51
FIGURE 30. ILLUSTRATION OF NNE DEMAND CURVES FOR FCA #14.....	51