



LEI Semi-Annual Regional Market Update and 10-year Energy Price Forecast

Southeastern US states

3rd Quarter 2021

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

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 therein, 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

1	MARKET OVERVIEW AND RECENT DEVELOPMENTS	5
1.1	MARKET OVERVIEW	5
1.2	RECENT DEVELOPMENTS	7
1.2.1	<i>Southeast Energy Exchange Market</i>	7
1.2.2	<i>Announced emissions reduction goals</i>	9
1.2.3	<i>Vogtle construction delays</i>	10
1.2.4	<i>Nuclear operating license renewals</i>	12
1.2.5	<i>Coal-fired retirements</i>	13
2	MODELING ASSUMPTIONS	14
2.1	MARKET TOPOLOGY	14
2.2	FUEL PRICE PROJECTIONS	14
2.3	EMISSIONS COSTS	17
2.3.1	<i>SO₂ and NO_x emissions</i>	17
2.3.2	<i>CO₂ emissions</i>	18
2.4	IMPORT AND EXPORT FLOWS	19
2.5	GENERIC NEW ENTRY	19
2.6	RPS REQUIREMENTS	21
2.7	DEMAND AND SUPPLY	22
3	10-YEAR PRICE FORECAST	26
3.1	ENERGY MARKET PRICES	26
3.2	IMPLIED MARKET HEAT RATE	27
4	APPENDIX A: OVERVIEW OF FORECASTING METHODOLOGY	28
5	APPENDIX B: INTRODUCTION TO LEI AND ITS WORK IN THE SOUTHEASTERN US	29

List of figures

FIGURE 1. INSTALLED CAPACITY AND GENERATION BY FUEL TYPE	6
FIGURE 2. INSTALLED CAPACITY AND GENERATION BY MARKET PLAYER	6
FIGURE 3. SUMMARY OF RECENT DEVELOPMENTS AND POTENTIAL PRICE IMPACTS.....	7
FIGURE 4. ANTICIPATED SEEM FOOTPRINT.....	8
FIGURE 5. TIMELINE OF KEY EVENTS IN THE VOGTLE EXPANSION PROJECT	11
FIGURE 6. NUCLEAR OPERATING LICENSE RENEWALS IN SERC.....	12
FIGURE 7. INTRA-REGIONAL TRANSMISSION INTERFACE LIMITS.....	14
FIGURE 8. FOSSIL FUEL PRICE PROJECTIONS.....	15
FIGURE 9. FORECASTED NATURAL GAS PRICES.....	16
FIGURE 10. FORECASTED OIL AND COAL PRICES (REGIONAL AVERAGE)	17
FIGURE 11. EMISSIONS COST PROJECTIONS (NOMINAL \$/SHORT TON)	18
FIGURE 12. TARGETED ANNUAL IMPORTS / (EXPORTS)	19
FIGURE 13. COST OF GENERIC NEW ENTRY ASSUMPTIONS FOR SERC, 2025	20
FIGURE 14. COST OF GENERIC NEW ENTRY ASSUMPTIONS FOR SERC, 2030	21
FIGURE 15. RPS PROGRAMS IN THE SOUTHEAST US STATES	21
FIGURE 16. FORECAST PEAK DEMAND AND ANNUAL ENERGY BY ZONE	22
FIGURE 17. NEW ENTRY IN THE MODELING HORIZON (2022-2031).....	23
FIGURE 18. DEMAND-SUPPLY BALANCE.....	24
FIGURE 19. INTERNAL SUPPLY CURVE FOR MODELED SOUTHEASTERN US STATES (2025)	25
FIGURE 20. FORECAST ENERGY MARKET PRICES, 2022-2031 (NOMINAL \$/MWH).....	26
FIGURE 21. ESTIMATED IMPLIED MARKET HEAT RATES, 2022-2031 (AVERAGE "ALL-HOURS").....	27
FIGURE 22. POOLMOD'S TWO-STAGE PROCESS.....	28