



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

Southwest Power Pool

January 2025 Release

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	4
1.1	MARKET OVERVIEW	4
1.2	RECENT DEVELOPMENTS	6
1.2.1	<i>RTO expansion</i>	6
1.2.2	<i>Evolution of Western Energy Services</i>	7
2	MODELING ASSUMPTIONS	12
2.1	MARKET TOPOLOGY.....	12
2.2	FUEL PRICE PROJECTIONS.....	12
2.3	CARBON COSTS	14
2.4	HYDROLOGY	14
2.5	WIND PRODUCTION PATTERNS	14
2.6	GENERIC NEW ENTRY.....	15
2.7	RPS REQUIREMENTS	17
2.8	IMPORT AND EXPORT FLOWS	19
2.9	DEMAND AND SUPPLY	19
3	10-YEAR PRICE FORECAST	23
3.1	ENERGY MARKET PRICES.....	23
3.2	IMPLIED MARKET HEAT RATE	24
4	APPENDIX A: OVERVIEW OF FORECASTING METHODOLOGY	25
5	APPENDIX B: INTRODUCTION TO LEI AND ITS WORK IN SPP	26

List of figures

FIGURE 1. INSTALLED CAPACITY AND GENERATION BY FUEL TYPE	5
FIGURE 2. INSTALLED CAPACITY AND CONSUMPTION BY MARKET PLAYER	5
FIGURE 3. SPP RTO AND WESTERN ENERGY SERVICES FOOTPRINT	6
FIGURE 4. WESTERN ENERGY IMBALANCE SERVICE FOOTPRINT	7
FIGURE 5. WESTERN RC SERVICES FOOTPRINT	8
FIGURE 6. WESTERN RESOURCE ADEQUACY PROGRAM FOOTPRINT.....	10
FIGURE 7. MARKETS+ PHASE ONE MEMBERSHIP	10
FIGURE 8. CAISO's EDAM VS SPP MARKETS+	11
FIGURE 9. SPP FOOTPRINT AND ZONAL DEFINITION	12
FIGURE 10. FOSSIL FUEL PRICE PROJECTIONS (NOMINAL \$/MMBTU)	13
FIGURE 11. AVERAGE MONTHLY HYDROELECTRIC ENERGY GENERATION (GWH/MONTH).....	14
FIGURE 12. AVERAGE HOURLY CAPACITY FACTORS FOR WIND PROJECTS BY REGION.....	15
FIGURE 13. ILLUSTRATION OF SEASONAL DIFFERENCES IN WIND OUTPUT ACROSS SPP	15
FIGURE 14. LEVELIZED COST OF NEW GENERATION FOR SPP, 2025 AND 2030	16
FIGURE 15. RPS REQUIREMENTS IN SPP	17
FIGURE 16. RPS REQUIREMENTS IN THE SPP MARKET	18
FIGURE 17. TARGETED ANNUAL IMPORTS / (EXPORTS)	19
FIGURE 18. FORECAST PEAK DEMAND AND ANNUAL ENERGY BY ZONE	20
FIGURE 19. PROJECTED NEW ENTRY IN SPP OVER THE MODELING HORIZON (2025-2034).....	21
FIGURE 20. PROJECTED DEMAND-SUPPLY BALANCE FOR SPP (SYSTEM-WIDE)	21
FIGURE 21. SUPPLY CURVE FOR SPP (2030).....	22
FIGURE 22. FORECAST ENERGY MARKET PRICES, 2025-2034 (NOMINAL \$/MWH).....	23

FIGURE 23. FORECAST IMPLIED MARKET HEAT RATES, 2025-2034 (MMBTU/MWH)	24
FIGURE 24. POOLMOD'S TWO-STAGE PROCESS.....	25