

# **IESO (Ontario) Market Price Forecast E3 Core Case**

2026 1<sup>st</sup> Edition



**Energy+Environmental Economics**

[marketprices@ethree.com](mailto:marketprices@ethree.com)



# Disclaimer

---

*E3 created the following forecasts and analyses using the best available information and our market expertise and industry knowledge, along with commercially available 3rd party software and our own proprietary in-house market price forecasting tools. However, the future is uncertain, and these forecasts (along with underlying market expectations) may change due to many factors, including unforeseen events, new technology adoption or inventions, new market structures, regulatory actions, and changes in both state and federal government policies.*

*E3 does not make any representations or guarantees related to the accuracy or completeness of these forecasts or any of the information presented herein and is not liable for any damages or consequences associated with the use of these forecasts by any other party for commercial transactions, investment decisions, or other purposes. Any person or entity using these forecasts for any purpose, by so doing, does so entirely at their own risk and with no reliance on E3 or E3's work products. The information provided by E3 herein does not constitute any promise or obligation for E3 to provide any additional information, materials, or updates in the future.*

# Contents

---

- + **Executive Summary**
- + **IESO Market Overview**
- + **E3 Modeling Approach**
- + **E3 Modeling Assumptions**
- + **E3 Forecast Results: 2026-2050**



# Executive Summary

# Who is E3?

Technical & Strategic Consulting Specializing in the Energy Transition

130+ full-time  
consultants



San Francisco



New York

30+ years of  
deep expertise



Boston

Degrees in Engineering + Economics  
+ Mathematics + Public Policy



Calgary



Denver

## E3 Clients

350+  
projects  
per year  
across our  
diverse  
client base



## Asset Classes Supported by E3

Utilities	Data Centers and Other Large Loads
Thermal Generation Resources	Low Carbon Fuels and Pipelines
Transmission and Grid Enhancing Technologies	Energy Storage
New Generation Technologies	On/Off-Shore Renewables
Software Solutions	Electric Vehicles, Distributed Generation and Flexible Loads

# E3 Work in Ontario

---

- + E3's experience with a broad range of stakeholders in Ontario gives us a strong understanding of policies, regulations, stakeholder interests, market dynamics, contract structures, and the competitive landscape**
- + E3's work in Ontario has covered a wide range of topics and clients such that we not only understand the current market but have thought extensively how the market may change over the short-, medium-, and long-term**
- + E3 has also worked directly in a public setting with Ontario**
  - IESO Dynamic Reserve (2023-24): Report to the IESO on the reserves required to support the high levels of renewables proposed in the Pathways to Decarbonization study. The scenarios evaluated the flexibility reserves required to support a 2035 moratorium on natural gas generation, and net zero by 2050 in Ontario's electricity sector
  - Ontario Feed-in Tariff Testimony (2021): E3 provided expert witness support on the appropriateness of the Feed-in-tariff (FIT)
- + E3 has actively supported developers, investors (infrastructure funds, private equity, lenders), on energy storage, renewables, and conventional generation investments**

# E3's Forecasting Philosophy in an Era of Unprecedented Uncertainty across Supply, Demand, Policy, and Market Design

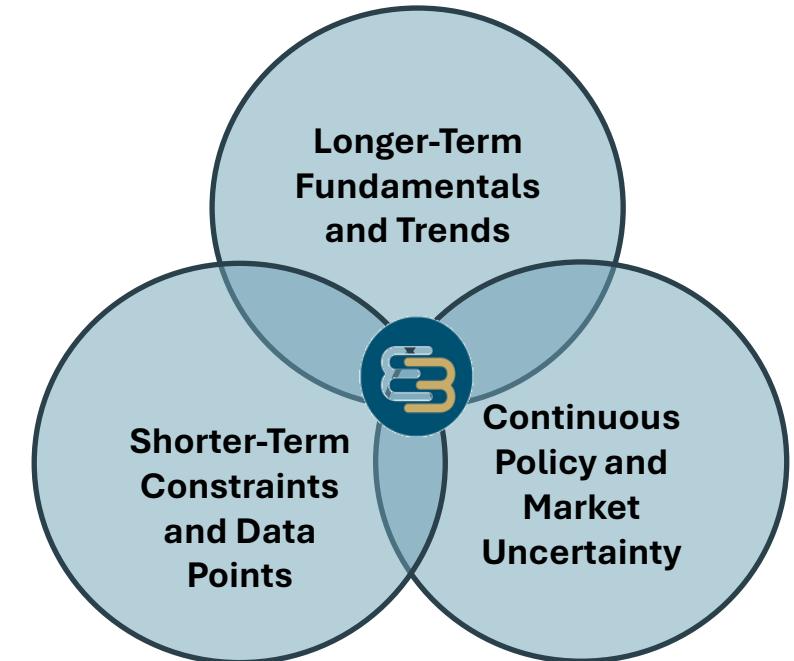
## + E3's forecasting approach has always been driven by our twin guiding principles:

- 1 To create a flagship product supported by rigorous, fundamentals-based analysis that is developed with great care, foresight, and thought in as transparent and intellectually honest manner as possible
- 2 Provide a “consultant-first” engagement platform built on our cross-cutting and best-in-class expertise in the industry

## + In today's era of uncertainty impacting almost all fundamental drivers of power market prices and asset valuation, we believe our approach is well suited to provide our clients with real insight to use as a tool to separate the “signal” from the “noise” by:

- Having our forecasts being continually utilized and tested “in-the-field” across a diverse set of 100+ clients and projects annually
  - This drives a holistic “pressure-tested” product compared to alternatives
- Having every single member of E3's forecasting team be continuously and actively involved in our complex, client-facing consulting work
  - This drives a product that reflects both on-the-ground and modeled “realities”
- Having highly-informed views on policies, markets, and constraints
  - This drives a robust product that reflects, but does not “over-index” to recent data points / news that may or may not significantly impact longer-term trends

### E3's Balanced Forecasting Approach



# Recent Public Transaction Support

**25+GW of Renewables, Storage, and Thermal Generation Assets Evaluated and Supported over the last 12-months along with Major Investments into Utilities and Transmission Assets**



E3 supported Brookfield Renewable Partners in its acquisition of the U.S. onshore renewables business of **National Grid Renewables** for an enterprise value of \$1.7 billion.



E3 served as market advisor to **Baseline Energy Services**, a provider of low-carbon and mobile distributed power generation solutions, on its sale to **Pennybacker**.



E3 supported Brookfield Renewable Partners in their acquisition of **Duke Energy Renewables** for \$1.05 billion in equity proceeds.



E3 acted as market advisor to KKR on the establishment of its **\$2 billion strategic partnership** with Hannon Armstrong Sustainable Infrastructure Capital, Inc. (HASI)

**+** E3 works closely with all types and sizes of developers, investors, and financiers active in North America from the smallest to the largest under all ownership structures across a diverse set of asset classes

**+** E3 supports many other types of clients like utilities, RTO/ISOs, regulators, and key market participants along with other key stakeholders

- For utilities, our work spans C-suite / Board strategy to utility resource planning, program cost-effectiveness analysis, ratemaking, and regulatory filing support, all of which support our expertise in transaction contexts

- We have been trusted consultants for many years to numerous state regulatory commissions and agencies (e.g., the California Public Utilities Commission and others)
- We also work for several key utility stakeholders such as environmental and non-profit groups



E3 served as power market advisor to Global Infrastructure Partners (GIP) on their acquisition of Eversource's stake in the **South Fork and Revolution** offshore wind projects.



Key market and strategic advisor to Blackstone Infrastructure Partners on \$2.15 billion acquisition of minority equity interest in **Northern Indiana Public Service Company**



Key market and strategic advisor to Macquarie Infrastructure and Real Assets / Ontario Teachers' Pension Plan consortium in their investment into **Puget Sound Energy**



Key market and strategic advisor to InfraRed Capital Partners in their investment into a portfolio of **Texas and Nevada transmission assets**



Key market and strategic advisor to **Ontario Teachers' Pension Plan** in their acquisition of certain **NextEra** assets



Key market and strategic advisor to **Amber Infrastructure Group** in their investment in low carbon fuels (RNG and ethanol)



Key market and strategic advisor to **Generate Capital** in their investment in a battery energy storage platform (esVolta)



E3 acted as market advisor to KKR on its acquisition of Emera's equity interest in the Labrador Island Link (LIL). A transaction valued at \$1.19 billion CAD. The LIL is a 1,100 km high voltage transmission line that delivers renewable energy to Newfoundland, Nova Scotia from Labrador.

# Who is E3?

## Our Practice Areas

- +E3 is the largest consulting firm focused on the power sector in North America
- +E3 is a recognized thought leader on many topics such as power market design and system planning
- +E3 has three major practice areas covering energy systems from bulk grid to behind the meter



### Climate Pathways & Electrification

- Long-term energy & climate scenarios
- Electrification and low-carbon fuels analysis
- Customer affordability
- Climate risk analysis focused on wildfires



### Asset Valuation & Markets

- Energy market price forecasting
- Strategic advisory
- Due diligence
- Market design
- Regulatory consulting
- Transmission planning



### Integrated System Planning

- Electric system planning: reliability and resource analysis
- Utility planning and procurement decisions
- Bid evaluation and procurement support

Economy-Wide Energy Systems



Bulk Grid Power Systems



Grid Edge / Behind-The-Meter



# Asset Valuation and Strategy Practice Area

- + The Asset Valuation and Strategy practice area works primarily with project developers, asset owners, and investors
- + Insights informed by work being done across the firm that provides a unique 360-degree perspective of rapidly evolving markets
  - Energy Policy → how will policy change the playing field for different resources?
  - Planning → what resources will power the grid in 2030? 2050?
  - Market Analysis → how will market prices evolve in the grid of the future?
- + The E3 Asset Valuation and Strategy team provides a broad and deep range of analytical support tailored to client needs for strategy, planning, development, and financing
- + Typical services include:
  - Transaction support and due diligence (buy side and sell side)
  - Strategy formulation and market entry
  - Board-level reports on market outlook and asset performance
  - Customized forward-market price projections incorporating impacts of policy and technology changes
  - Revenue stream/benefits analysis, for asset or portfolio
  - Production cost simulation using in-house proprietary tools or customized commercial software
  - Project site evaluation
  - Off-taker assessments
  - Basis spread assessment
  - Wholesale market rules and bidding strategies



## Asset Valuation / Strategy

- Analyze asset value from multiple perspectives in vertical, bilateral, and wholesale markets
- Strategic support for project development, acquisition, and operation, including market entry
- Proprietary in-house models and in-depth knowledge of public policy, regulation and markets

# E3's Comprehensive and Best-in-Class Modeling Toolkit

## Market- Level

### PLEXOS



Granular operational simulations and capacity expansion for market price forecasts, system planning, and resource evaluation

### PATHWAYS



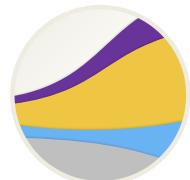
Economy-wide accounting of potential role for emerging technologies in the energy transition

### RECAP



System-wide reliability assessment and resource-by-resource assessment of capacity value

### RESOLVE



Optimal capacity expansion for electric systems, including emerging technology candidates

## Project- Level

### RESTORE



Optimizes energy storage and thermal generation asset value via operations

### REMATCH



Evaluates marginal emissions and final electricity demand costs

### RECOST



Forecasts of the total financed cost of generation technologies

### Electrolytic Fuel Calculator



Technical cost analysis of electrolytic fuel production through electrolysis

# E3 Model Ecosystem for Market Price Forecasts: Built on Decades of Experience and 360° Analysis

## E3 Model Toolkit

### Input Models

#### E3 PATHWAYS

Least-cost decarbonization pathways across sectors to meet GHG targets

#### E3 RESHAPE

Load simulation for building electrification & EVs

#### E3 RECAST

Levelized costs of new resources including financing and tax incentives

#### E3 RECAP

Stochastic reliability modeling for ELCCs of renewables and storage

### Output Models

#### E3 RESTORE

Optimized battery operations and revenues

#### E3 Scarcity + RT Price Model

Forecasts scarcity and real-time energy prices with regression analysis

#### E3 Nodal Price Model

Node-zone basis forecast for nodal prices

#### E3 Ancillary Services Model

Forecasts AS prices with regression analysis and market saturation

#### E3 Capacity Market Models

Capacity price formation by market, aligned with unique market dynamics

#### E3 REC Market Models

Renewable Energy Credit prices aligned with unique market dynamics

## Market Price Forecasting Approach

### Key Scenario Variables

1

**Load Forecasts**  
Regional load growth, energy efficiency, building electrification, and EVs

2

**Policies**  
RPS, CES, GHG, other mandates

3

**Regional Coordination**  
Transmission, Trading, and policy alignment

4

**Costs:**  
• New resource costs  
• Gas prices  
• Carbon prices

### PLEXOS Model Outputs

5

**Long-Term Capacity Expansion (Annual)**

#### New Resource Additions

- Economics
- Policies and mandates (RPS, CES, GHGs)
- System reliability needs
- Retirements

6

**Production Cost Simulation (Hourly)**

#### Energy Market Forecasts

- Hourly day-ahead energy prices by zone
- Dispatch, renewable curtailment, and transmission flows

### E3 Forecasts

#### Market Product

Energy  
(Day-Ahead and Real-Time)

#### Geographic Granularity

Zonal

#### Temporal Granularity

Hourly

#### Capacity (low, medium, high forecasts)

System / Local

Annual

#### Ancillary Services (Reg, Spin, Non-Spin, EIR)

ISO

Hourly

#### ELCC Curves

Regional

Annual

#### RECs

State / ISO

Annual

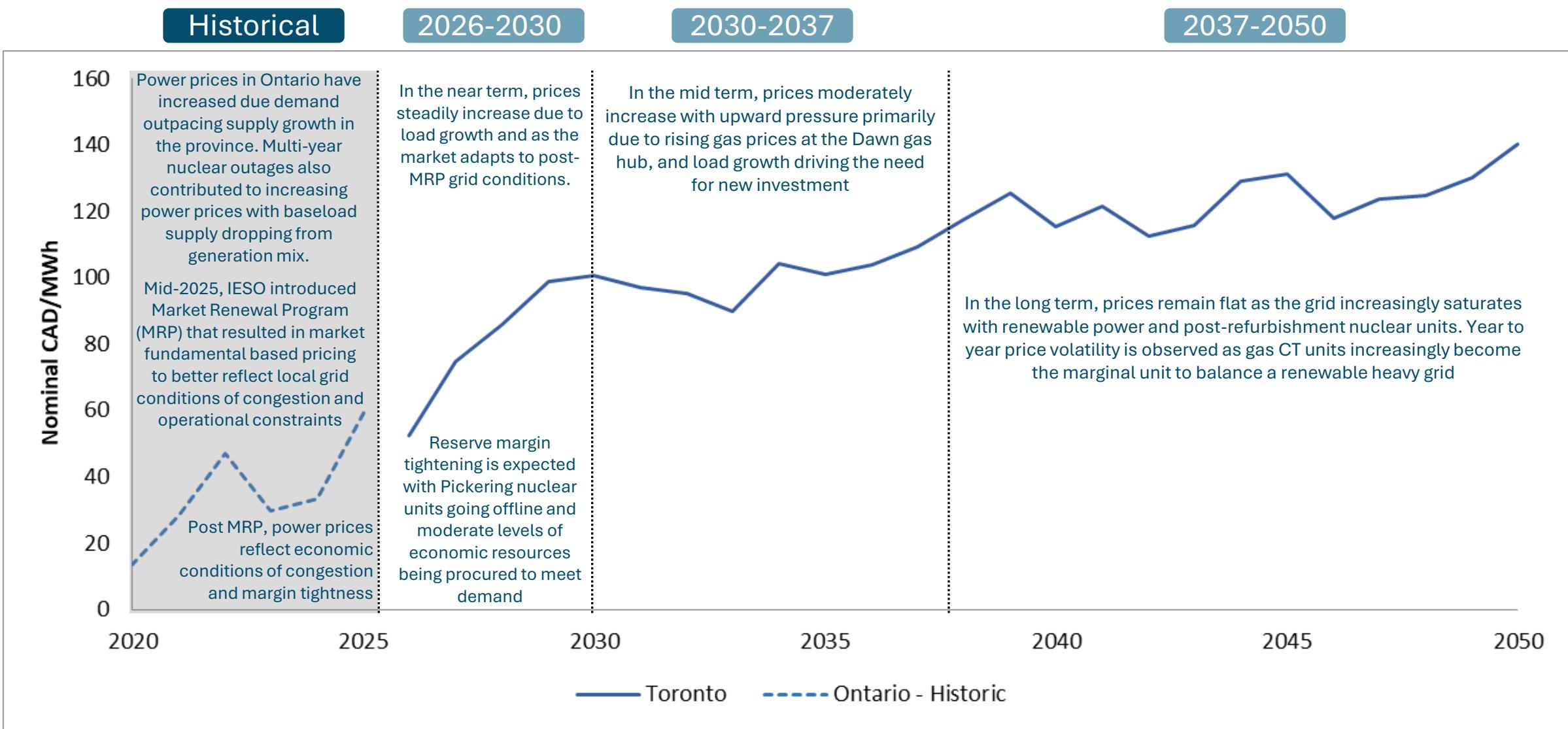
#### System Operations

System / Local

Hourly / Monthly

Fundamentals-based market modeling built on day-ahead energy prices

# IESO Market Price Forecast (Toronto Zonal Price)





Energy+Environmental Economics

# IESO Market Overview



# E3 Modeling Approach



# E3 Modeling Assumptions



# E3 Forecast Results: 2026-2050