MAY 21, 2025

2026 Annual Planning Outlook: Electricity Planning Scenarios

Resource Planning

ieso
Connecting Today. Powering Tomorrow.

Purpose of Today's Discussion

- Provide an overview of the electricity planning scenarios to be developed for the 2026 APO, and the narratives and variables considered for each scenario

Background

- The Annual Planning Outlook (APO) identifies system needs, describes factors that could influence needs and presents planned actions to address reliability needs
- The 2026 APO, anticipated to be published in Q1 2026, will present multiple demand forecast scenarios to reflect the current uncertainty in trade policy and potential economic impacts
- The forecast scenario definitions and variables considered in each scenario will be used to develop the demand forecasts and resource assessments for the 2026 APO

2026 APO Demand Forecast Scenarios

Forecast Scenarios: Narratives

- The IESO has developed three electricity planning scenarios that present faster/slower demand growth compared to the reference, and supply assumptions that correspond with the level of demand growth in each scenario
  - **Reference scenario**: Similar to previous APOs, this scenario represents high-confidence policy, government announcements and continuing trends
  - **High scenario**: Represents a future featuring economic acceleration and stronger policy and consumer-driven electrification trends
  - **Low scenario**: Represents a future featuring economic deceleration and weaker consumer and policy-driven electrification trends
- The treatment of various macro-level, demand and supply factors under each scenario is discussed on the following slides

Macro-level Factors (1)

Variable	Reference	High	Low
Trade environment, investor confidence and economic growth	Trade disruption resolved in near future followed by return to status quo investor confidence and demand for Ontario goods and services. Use of status quo demand forecast model inputs (e.g. commercial square footage projections, industrial production forecasts, etc.)	Resolution of trade disruption, removal of Canadian internal trade barriers and diversification of external trading partners results in generally stronger investor confidence and demand for Ontario goods and services. Use of higher demand forecast model inputs (e.g. commercial square footage projections, industrial production forecasts, etc.), more planned new large load projects reach completion.	Trade disruption results in generally weaker investor confidence and demand for Ontario goods and services. Use of lower demand forecast model inputs (e.g. commercial square footage projections, industrial production forecasts, etc.), fewer planned new large load projects reach completion.

Macro-level Factors (2)

Variable	Reference	High	Low
Population growth	Aligned with latest projections	Above latest projections	Below latest projections
Regulatory context	Constraints on development of new gas generation consistent with Long-Term 2 Procurement (i.e., limitation in existing gas transmission system capacity and uncertainty in cost of expansion)	Constraints on development of new gas generation consistent with Long-Term 2 Procurement; higher gas network utilization results in greater adoption of electric heating in new buildings	Constraints on development of new gas generation consistent with Long-Term 2 Procurement
Greenhouse gas emission pricing (Carbon tax)	No consumer carbon price Emissions Performance Standards (EPS) continues	No consumer carbon price EPS continues	No consumer carbon price EPS continues

Demand Forecast Factors (1)

Variable	Reference	High	Low
Climate	Current weather assumptions	Current weather assumptions	Current weather assumptions
Building Electrification Policy	Toronto Green Standard in Toronto Continued IESO/Enbridge/NRCan programs incenting heating electrification over forecast period	Toronto Green Standard-like building code adopted broadly by major Ontario municipalities Continued IESO/Enbridge/NRCan programs incenting heating electrification over forecast period	Toronto Green Standard only in Toronto (or no TGS reflecting current court challenge) IESO/Enbridge/NRCan programs incenting heating electrification conclude after current frameworks/budget allocation
Transportation Electrification	Continued considerable growth in EV adoption but below federal EV sales targets	Strong growth in EV adoption consistent with federal EV sales targets	Moderate to low growth in EV adoption
Hydrogen economy	Growth based on known projects with moderate adjustment for project uncertainty	Growth based on known projects with weaker adjustment for project uncertainty Higher electrolyzer load translate to more dispatchable load	Growth based on known projects with strong adjustment for project uncertainty

Demand Forecast Factors (2)

Variable	Reference	High	Low
Electricity Demand Side Management (eDSM)	Initially aligned with 2025-2027 eDSM program plan, then higher long-term savings levels reflecting planned continued growth of eDSM targets and budgets and load growth	Initially aligned with 2025-2027 eDSM program plan, then higher long-term savings levels reflecting planned continued growth of eDSM targets and budget and higher load growth	Initially aligned with 2025-2027 eDSM program plan, long-term savings levels consistent with current program plans levels adjusted for load growth
Agricultural greenhouse development	Informed by reference forecast developed for Windsor-Essex Integrated Regional Resource Plan (IRRP)	Informed by high forecast developed for Windsor-Essex IRRP	Will leverage project lists established for Windsor-Essex IRRP but assume tariffs redirect some investment to US
Data centre development	Growth based on known projects and growth rate consistent with identified project pipeline	Growth based on known projects and higher growth rate	Growth based on known projects with a lower growth rate
Industrial mineral extraction & processing sub-sector	Growth based on known projects with moderate adjustment for project uncertainty	Growth based on known projects with higher growth rate and accelerated development timelines due to potential impacts of federal permitting reform	Lower growth based on known and unknown projects

Supply Factors

Variable	Reference	High	Low
Energy production regulation	Gas production limited to emissions envelope from Clean Electricity Regulation (CER) Equivalency Agreement or similar	Gas production limited to emissions envelope from CER Equivalency Agreement or similar	Gas production limited to emissions envelope from CER Equivalency Agreement or similar
Build limits for new resources	Macro level factors (see slide 6), land use considerations, global trade relationships, manufacturing inputs, labour/ work force, supply chain and shares of the supply mix build out will dictate the resource availability (build limits)	Scale up from the reference case - apply a fixed percentage increase representing a more favourable investment environment	Scale down from the reference case - apply a fixed percentage decrease representing a less favourable investment environment
Cost of building new resources	Costs based primarily on NREL data, adjusted for $CAD and Investment Tax Credit impacts	Same as Reference	Costs of equipment significantly exposed to trade (i.e. wind, solar, BESS, gas turbines) increased by 20%

Next Steps

2026 APO Release and Planned Engagements

- The IESO is finalizing the demand forecasts for the 2026 APO, which will inform broader system assessments and the final report (expected Q1 2026)
- Future engagement on the 2026 APO will include:
  - A public session later this year to present final demand forecasts; and
  - A public session following publication in 2026 to provide an overview of key findings
- While 2026 APO timelines are tight, today's session marks the start of a more transparent, ongoing engagement process

Stakeholder Feedback and Planning Scenarios Engagement

- The IESO plans to hold ongoing scenario planning sessions that inform subsequent APOs; sessions will run in parallel with the APO engagements to support long-term planning
- Feedback from today's session will be reviewed and used to inform future scenario planning cycles; due to timing, input may not affect the 2026 APO but will help shape future assumptions and modeling
- The IESO is working to evolve its planning approach by:
  - Expanding input into scenario design and uncertainty
  - Tracking how feedback influences outcomes
  - Better aligning engagement with internal planning milestones

Future Engagements: Anticipated Timeline

Period	Engagement
Q3 2025	APO Engagement: 2026 APO demand forecast webinar
Q4 2025-Q1 2026	Planning Scenarios Engagement (for development of 2027 APO demand forecast)
Q2 2026	APO Engagement: 2026 APO overview webinar following report release
Q3 2026	APO Engagement: 2027 APO demand forecast webinar
Q4 2026-Q1 2027	Planning Scenarios Engagement (for development of 2028 APO demand forecast)

Thank You

ieso.ca

1.888.448.7777

customer.relations@ieso.ca

engagement@ieso.ca

@IESO_Tweets

facebook.com/OntarioIESO

linkedin.com/company/IESO

ieso
Connecting Today. Powering Tomorrow.