



IESO STRATEGIC ADVISORY COMMITTEE



INVEST ONTARIO – **YOUR GATEWAY TO OPPORTUNITY**

Invest Ontario is the dedicated agency for investment attraction in the province. We serve as global businesses' partner and one-window access to Ontario, providing expertise and tailored services throughout their investment journey.

With a focus on the advanced manufacturing, life sciences and technology sectors, we are committed to securing strategic investments that create jobs, generate returns to the province and drive Ontario's long-term economic growth and global competitiveness.

CUSTOMIZED **SERVICE OFFERINGS**

Invest Ontario uses a combination of quantitative and qualitative analyses to qualify, price, and structure investment support:



Navigating **government services**



Identify **financing and funding programs** such as the Invest Ontario Fund and R&D tax credits



Accessing **market intelligence data** and insights on key sectors



Support **site selection** from search to permits



Advisory services such as business opportunity analysis and market advice



Connecting to local partners for **workforce development**



Fast-track immigration for talent recruitment



Links to local service providers, business associations and universities and colleges

ONTARIO STRENGTHS IN



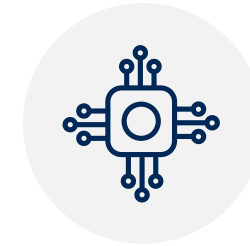
ADVANCED MANUFACTURING

- Advanced Materials and Chemicals
- Aerospace
- Automotive



LIFE SCIENCES

- Biopharma and Vaccines
- Digital Health and Medical Technology
- CDMO and Pharmaceutical Manufacturers



TECHNOLOGY

- Computer & Electronic Product Manufacturing
- AI and Connectivity
- Digital Services and IT
- Clean Technology



Agri-processing



Forestry



Mining



Tourism

DRIVING ENERGY DEMAND: **ASAHI KASEI**

Transformative investment strengthens Ontario's EV battery supply chain

Asahi Kasei is building Canada's first industrial-scale electric vehicle (EV) battery separator plant in Port Colborne, Ontario, further bolstering the province's EV battery supply chain and cementing its leadership in the global EV transition.

This expansion marks Asahi Kasei's first major investment in Ontario, which will help the company meet the growing demand in North America for lithium-ion battery separators used in EVs, while addressing an important gap in Ontario's EV battery supply chain.



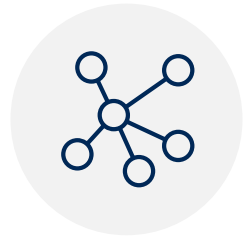
AsahiKASEI

~\$1.6B
Initial Investment

Invest Ontario provided financial support, as well as access to advisory services, market intelligence, strategic partnerships and talent

INVEST ONTARIO & ENERGY

Invest Ontario's activities create new direct demand for energy, and other services.



Invest Ontario works across markets to identify and attract catalytic investment to Ontario

Working with municipal stakeholders, utilities, and regulators, Invest Ontario matches investor requirements to potential sites

In some instances, Invest Ontario will enter into a performance-based support agreement with the investor in exchange for job creation and investment commitments

Investor builds their facility bringing on new jobs, production capacity, and electricity load

POSITIVE GROWTH IN ELECTRICITY DEMAND

INVESTMENT LOCATIONS & EXPECTED IMPACT ON REGIONAL ELECTRICITY DEMAND



LARGE INDUSTRIAL HOT SPOTS

BUILDING THE FUTURE

Critical Mineral Cluster

- \$13B+ in annual mineral production
- \$5.7B in critical minerals production
- 130 early exploration critical minerals projects

Chemical Cluster

- 700+ companies
- \$16.5 billion in shipments
- Sustainability leader

Automotive Cluster

- #2 N.A. assembly over past 10 years
- Only sub-national jurisdiction with 5 OEMs
- 700+ supplier companies

Tech and Innovation Cluster

- 2nd largest tech cluster in N.A.
- 20,000 ICT firms and 5,000+ start-ups
- 400+ Auto-tech vehicle firms

Financial Services Cluster

- 2nd largest Financial Hub in N.A.
- \$82 billion in GDP
- 408,000 people in 17,000 FS firms.



Ontario's transforming automotive sector is strategically located with increasingly interconnected industry clusters.



LARGELY DRIVEN BY GROWING EV ECOSYSTEM

OVER \$43 BILLION IN AUTOMOTIVE INVESTMENTS IN FOUR YEARS



Honda, with, partners Asahi Kasei and Posco, are investing **\$15 billion** in EV assembly, as well as battery cell, cathode, and separator manufacturing by 2028.



Volkswagen investing **\$7 billion** to build its first overseas, and its largest EV battery factory to date, in St. Thomas, starting in 2027.



NextStar Energy investing over **\$5 billion** to produce electric vehicle batteries in Windsor, starting in 2024.



Umicore will invest nearly **\$2.8 billion** to produce CAM and pCAM in Loyalist Township.



Stellantis has committed **\$3.6 billion** to build BEVs and PHEVs in Windsor, Brampton, and two R&D centres in Windsor.



GM investing over **\$2 billion** to retool its CAMI plant in Ingersoll to build battery-electric commercial vehicles for the new BrightDrop brand.



Toyota investing **\$1.4 billion** in Cambridge and Woodstock plants to become North America's largest hybrid vehicle production platform and hub for RAV4 assembly



Ford investing **\$1.8 billion** to produce battery-electric vehicles (BEVs) at its Oakville Assembly Complex.



WHAT WE ARE HEARING FROM INVESTORS

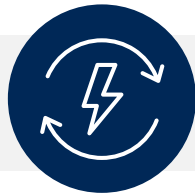
PROMOTING THE NARRATIVE WITH INVESTORS



Invest
Ontario

OUR ELECTRICITY COMPETITIVE ADVANTAGE

Throughout the client engagement process, Invest Ontario promotes Ontario's energy advantage, with the support of our partners in the Ministry of Energy, IESO, & Hydro One, we promote the province's energy competitiveness on:



RENEWABILITY

Increasingly looking for jurisdictions that can power their operations with clean (and ideally renewable) energy to reduce carbon footprint.



RELIABILITY

Having access to clean and reliable energy is often a critical requirement for Invest Ontario's EV clients and one of the early reasons why they look to the Province to invest in

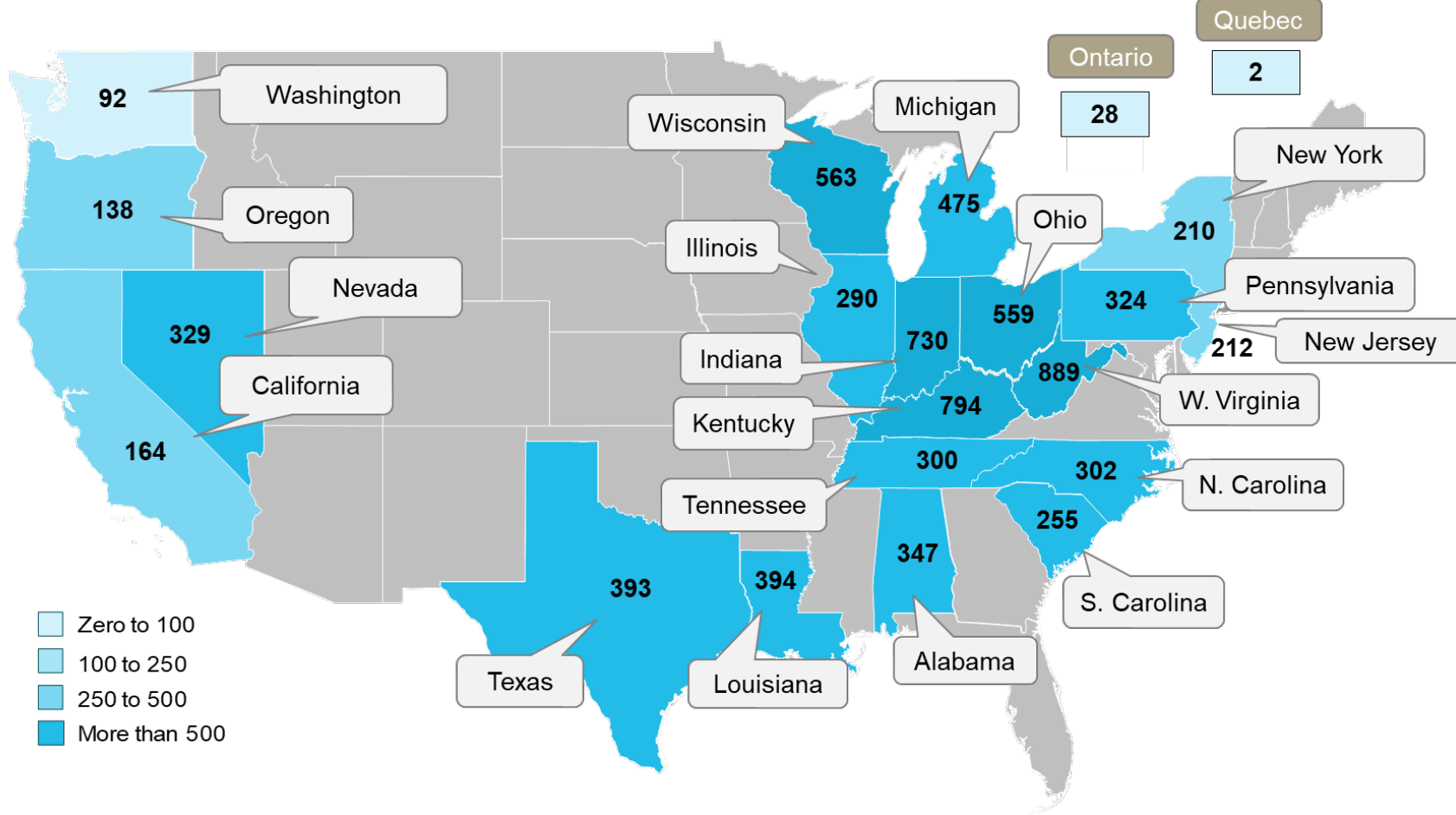


AFFORABILITY

Maintaining cost competitiveness is paramount

RENEWABILITY

CARBON INTENSITY (2021) – CO2 EQUIVALENT GRAMS PER KILOWATT HOUR



RELIABILITY

Commodities | Regulatory Oversight | Governance | Grid & Infrastructure | Coal

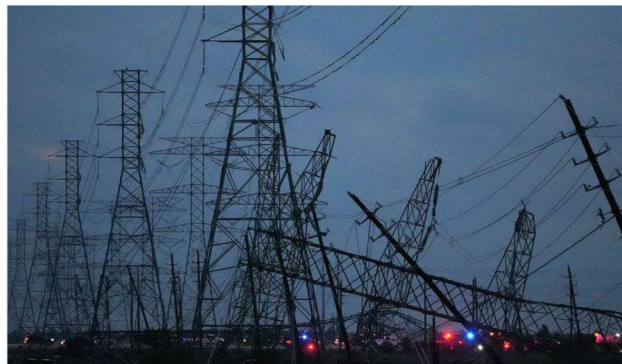
Texas braces for more summer electricity alerts

By John Kemp

May 19, 2024 8:59 PM EDT · Updated 4 months ago

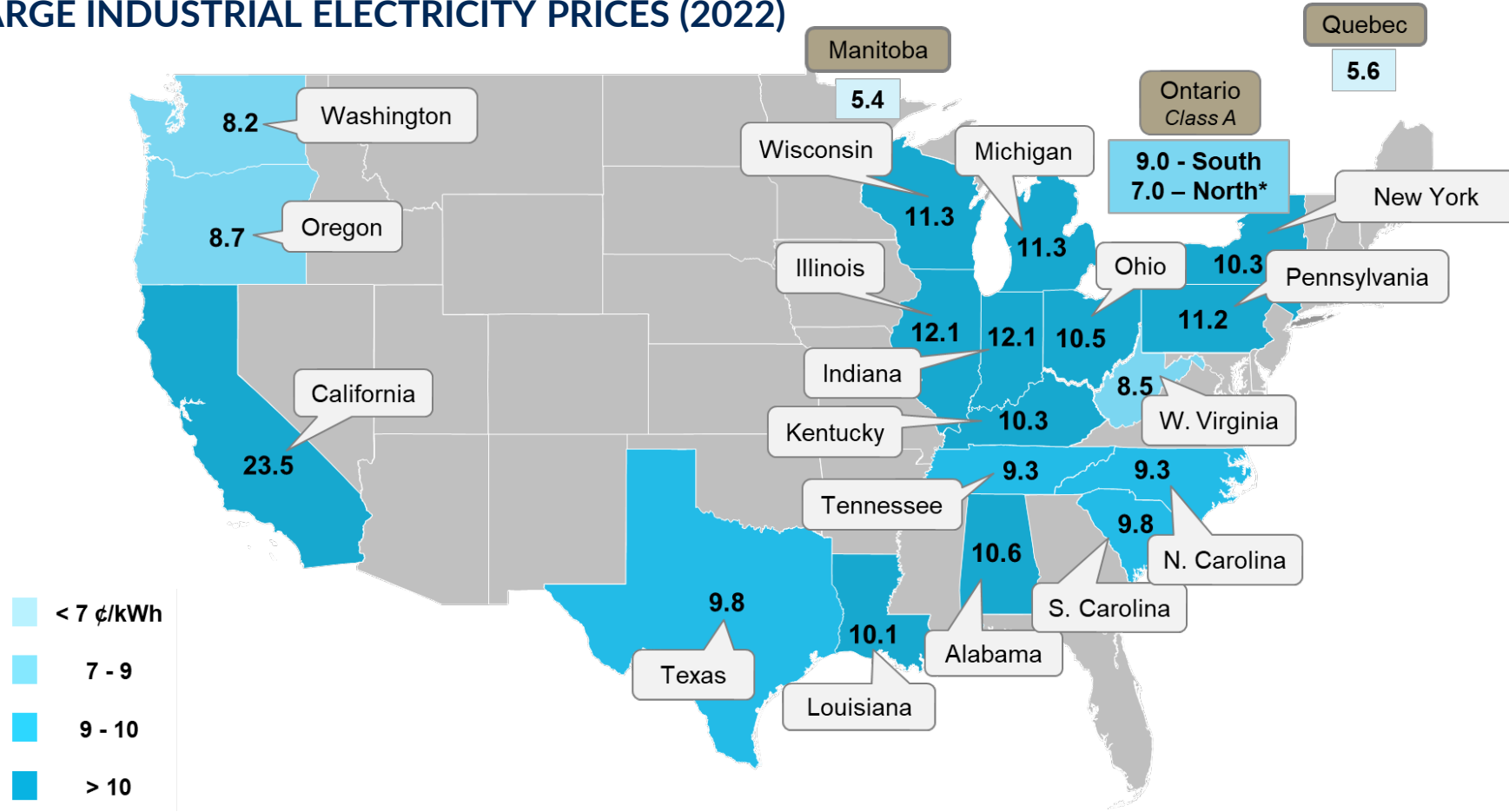


[Commentary](#) | By John Kemp



AFFORDABILITY

LARGE INDUSTRIAL ELECTRICITY PRICES (2022)



Germany	Italy
13.6 – 27.2	14.1 – 23.8
Turkey	India
9.7 – 9.9	11.5
France	Japan
12.6 – 15.7	21.8

Note: Ranges reflect prices with and without excise tax



*Includes Northern Energy Advantage Program rebate.

HOWEVER, CHALLENGES EXIST...



First move burden adding costs

- Clients bear the cost of transmission connections and infrastructure upgrades to un-serviced sites
- It is not unusual for Invest Ontario to see:
 - \$100M+ CAD* estimates to connect some of the Province's larger advanced manufacturing projects
- Whereas in competing jurisdictions, particularly in the United States, there is greater flexibility for those costs to be borne by others, e.g., the tab picked up by EDCs/utility companies, similar flexibility doesn't exist in Ontario's system
- We've anecdotally heard from clients that they are offered free connections in the United States and/or Ontario's connection costs are twice or three times as high



Timelines adding pressure

- Invest Ontario is seeing compressed project timelines throughout the project lifecycle
- Being first to market is critical
- Meeting external customer demands pushing timelines for faster connections
- Beginning in the preliminary stages of site selection right through to final decision
- Guaranteeing sites can be serviced for electricity within the client timeframes can be a challenge with
 - Multiple kms of transmission build outs
 - Real estate negotiations
 - Public consultations
 - Duty to Consult, etc.

SUMMARY

Some (EV) market uncertainty, but Invest Ontario continues to have high intake of projects, consistently seeing projects with energy demands in the 75-400 MW+ range

Commend the ongoing/strengthening relationship with IESO, excellent responsiveness/agility pivoting to client demands with compressed timelines, without which the Invest Ontario/province couldn't land projects

However, structure of Ontario's energy system can be impediment, e.g., inability to creatively restructure upfront electricity infrastructure costs borne by clients

Invest Ontario continues to strengthen relationship with IESO, proactively developing creative ways to improve the assessment process, continuing to contribute to IESO's system planning



HOW WE WORK TOGETHER



\$600M INVEST ONTARIO FUND TO SUPPORT INVESTMENT

Invest Ontario uses a combination of quantitative and qualitative analyses to qualify, price, and structure investment support



Market Comparables

Comparison of \$/Job and % investment against historical transactions in-jurisdiction



OPEX Gap Analysis

Forecast of material OpEx over fixed period compared against competitive set jurisdictions



Expected Value

Risk-adjusted NPV calculation with subjective risk/scenario weightings



Location Comparison

Subjective analysis of how Ontario ranks against competitors and what factors influence location choice



Risk Assessment

Subjective analysis across typical risk categories. H/M/L ranking and in aggregate



ROI to government

Break-even analysis of investment through combination of repayments and ancillary benefits (e.g. tax)



Strategic Value

Weighted scorecard determines quality of investment against policy objectives

OUR **SITE SELECTION** SERVICES



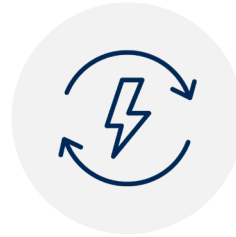
Maintains database of available greenfield sites



Relationships with land owners and developers (NorthCrest, IO, Orlando, SLATE etc)



Develops and maintains commercial real estate on retainer for brownfield site searches



Relationship lead with utility providers (Hydro One, Enbridge, iESO)



Conducts confidential site searches for clients.



GIS Database

ELECTRICITY ASSESSMENTS

Invest Ontario acts as a one window for strategic clients' electricity assessment requests in the Province



Working together with our IESO and our Hydro One partners, Invest Ontario:

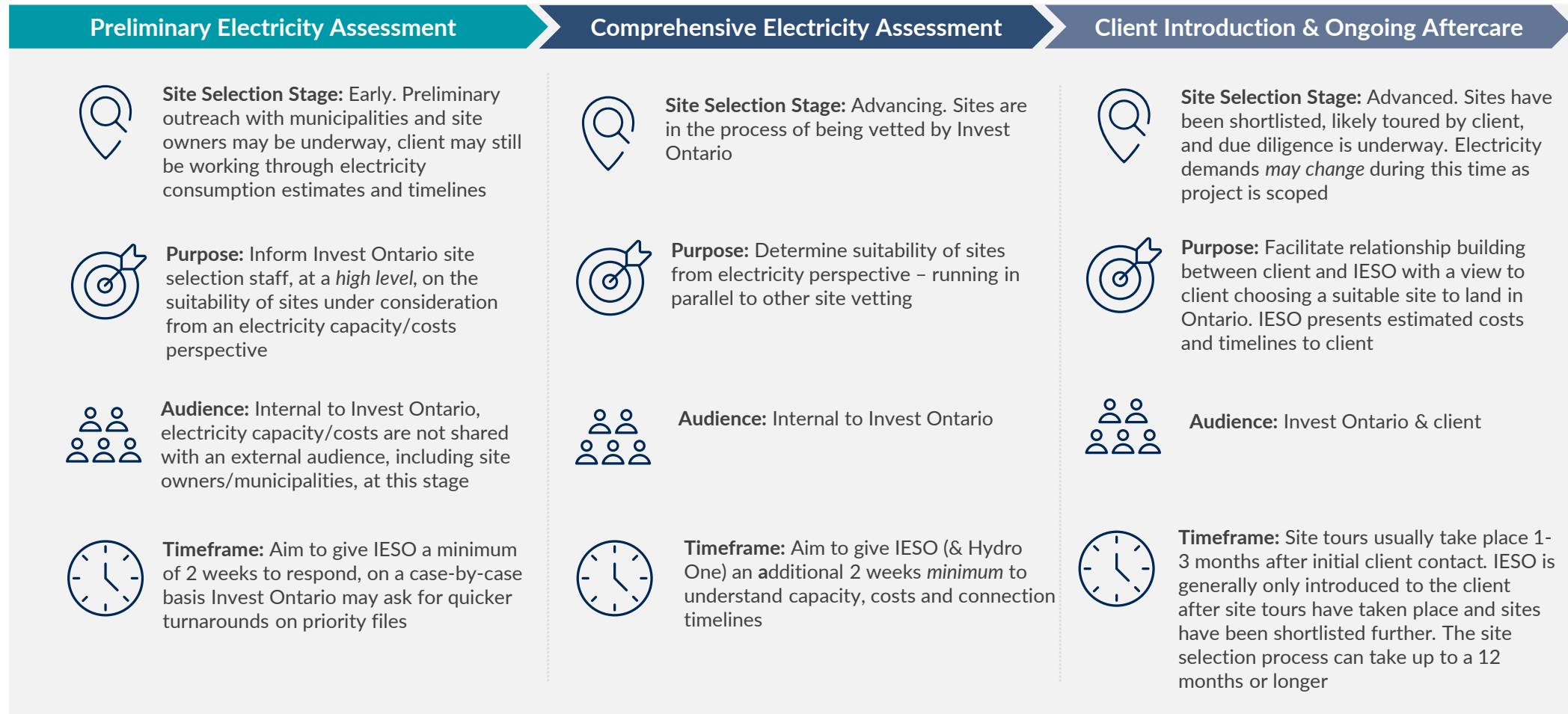
- Vets & shortlists industrial sites for grid capacity, connection/infrastructure costs
- Facilitates client engagement with IESO, the Ministry of Energy, Hydro One, and other relevant energy stakeholders, from the beginning of the site selection process right through to the final site decision



Contributes to IESO's systems planning by:

- Proactively articulating client insights and feedback on an ongoing basis
- Sharing Ontario market & site trends
 - Where are we seeing regional growth in the province
 - Highlighting new greenfield/brownfield site options as they come to market
- Sharing energy market trends observed by the Agency, our partners and clients in competing jurisdictions, e.g., incentives, costs, ease to connectivity

HOW INVEST ONTARIO & IESO EVALUATE SITES



WHAT CAN WE DO TOGETHER NEXT?



Share evaluation methods to further align and strengthen the delivery for the province



Site selection for your projects



Build on the IESO's rapid response to further embed economic development and alleviate shared burden

THANK YOU



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