
JANUARY 17, 2024

Part I: Energy Webinar for Communities #2

**Thank you for joining today's session
Please keep your cameras off and microphones muted**

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Denise Jamal, Director, Stakeholder and Community Engagement

Barbara Ellard, Director, Resource and System Adequacy

Marko Cirovic, Senior Manager, Resource Development and Procurement

Dave Barreca, Supervisor, Resource Acquisition, Resource Development and Procurement

Denise Zhong, Supervisor, Resource Acquisition, Resource Development and Procurement

Agenda

1. The Role of the Independent Electricity System Operator (IESO) and How We Work With Communities
2. Ontario's Electricity Needs
3. Overview: Long-Term 2 Request for Proposals (LT2 RFP) and Transmitter Selection Framework (TSF)
4. More Detailed Look:
 - Long-Term 2 Request for Proposals (LT2 RFP)
 - Transmitter Selection Framework (TSF)
5. Next Steps



The Role of the IESO and How We Work With Communities

Denise Jamal, Director, Stakeholder and Community Engagement

About the IESO



Operate Ontario's province-wide electricity system on a 24/7 basis



Oversee the electricity market, driving competition to maintain affordability



Plan for Ontario's future energy needs



Support innovation and emerging technologies



Work closely with communities to explore sustainable options



Enable province-wide energy conservation

Our Commitment to Engagement

The IESO's approach to community engagement is based on these key principles:

- ✔ Strengthening processes for early and sustained engagements with Indigenous communities, local governments and the public
- ✔ Providing Indigenous communities, local governments and the public with greater voice and responsibility
- ✔ Bringing communities to the table
- ✔ Linking local and provincial planning, and reinforcing the link between planning and procurement
- ✔ Enhancing electricity awareness and improved access to information

Communities Have a Key Role

Significant electricity system needs are expected over the next decade, and communities have a key role, including:



Informing electricity planning to ensure a reliable and adequate supply



Shaping the province's energy transition by ensuring the system is prepared for future needs



Hosting new generation, transmission and storage



Working with project developers on the applicable approvals, and partnerships, where applicable

Your Input is Important

Indigenous communities and municipalities are amongst the most influential voices to advance, manage, and shape the ongoing energy transformation. Through our engagements we've heard that is important to:



Inform and engage with communities in a timely manner



Consider design requirements that incentivize developers to better understand, interact and collaborate with communities



Keep economic development top of mind to meet future needs



Continue to provide support and guidance for communities on how to work with developers



Support innovative technologies and programs



Ontario's Electricity Needs

Barbara Ellard, Director, Resource and System Adequacy

Planning and Forecasting 101

To keep the lights on today, and into the future, the IESO:



Forecasts Ontario's energy needs on a real-time basis and at the regional and provincial level



Plans Ontario's high-voltage transmission lines that transport electricity from suppliers to Ontario's communities, including through the Annual Planning Outlook, regional planning and many others



Secures new and existing facilities to meet system needs in the short, medium and long term in a timely, cost-effective and flexible way



Delivers key programs and initiatives to address needs at the regional and provincial level

Ontario's Changing Electricity Landscape



This is a **pivotal point** for the electricity system. Ontario is entering a period of growing needs – by 2050, energy consumption could double



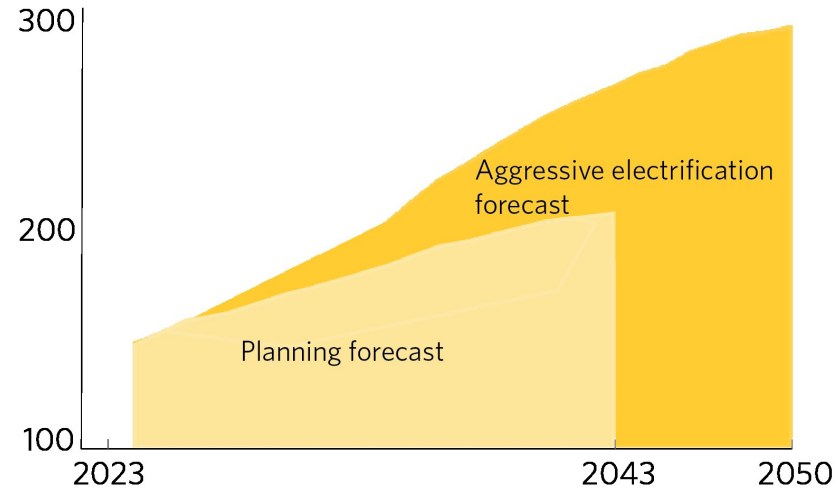
These needs are being driven by **economic growth, population growth and increased electrification**



This demand growth is happening in the midst of expiring generator contracts, nuclear refurbishments and the elimination of emissions from the grid



To meet the emerging needs, **Ontario will require additional new electricity infrastructure**, including new supply and transmission



Meeting the Electricity Needs

What We've Done

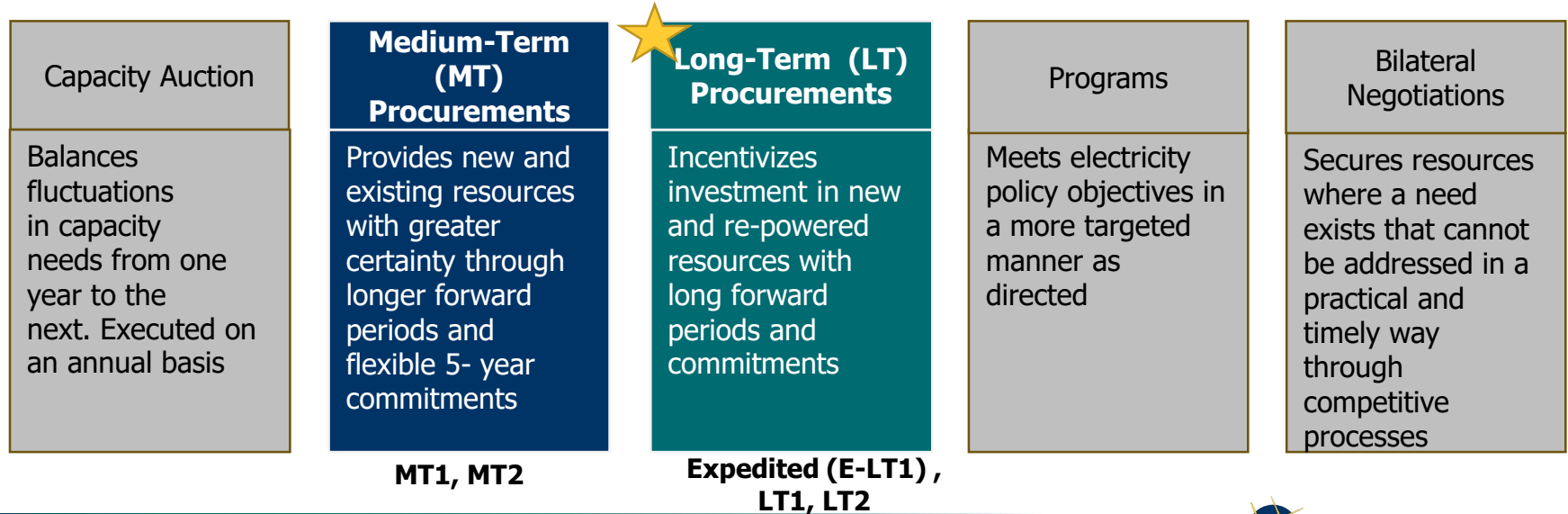
- ✓ Expanded existing conservation and demand side management programs
- ✓ Signed memorandum of understanding for capacity swap with Hydro Quebec
- ✓ Planned transmission expansions in many areas of the province, including in the north and south to address urgent needs
- ✓ Procured largest fleet of battery storage in Canada, combined with efficiency upgrades and expansions at existing gas generation facilities
- ✓ Launched the Hydrogen Innovation Fund

What We're Doing

-  Developing the next generation of energy efficiency programs
-  Developing a competitive framework for selecting transmitters
-  Planning for new nuclear generation
-  Procuring non-emitting supply
-  Integrating local generation
-  Planning more transmission expansions

Securing New Resources

The IESO has developed, implemented, and evolved its Resource Adequacy Framework to ensure that it has multiple tools available to meet emerging and growing resource adequacy needs.



The Path Forward – Meeting Electricity Needs and Building an Emissions-Free Grid

2024–2025



New commitments to small hydro facilities



New capacity exchange agreement with Hydro Quebec



First large battery facility comes online



New market opportunities for local energy projects



Launch expanded energy-efficiency programs



New transmission lines bring power to Southern and Northeast Ontario (2025–2030)

2030–2034



Proposed Pickering refurbishment



Non-emitting generation fleet continues to grow

Note: New transmission will be needed throughout this timeline to enable all the changes in the supply mix. Planning is underway.

2026–2028



Battery fleet grows, contributing to Ontario's system needs

2029



First small nuclear reactor powers up

2032



Darlington and Bruce nuclear refurbishments largely complete



New non-emitting generation deployed

2040



Most Ontario natural gas generation reach end of life

Role of Non-Emitting Resources

Non-emitting resources, such as wind, hydro, biomass and solar, have an important role to meet the growing need by:

- ✓ Working in tandem with Ontario's future battery fleet
- ✓ Helping to reduce output from natural gas generators
- ✓ Supporting the process of eliminating emissions from the grid
- ✓ Increasing reliability to keep the lights on
- ✓ Helping to meet overall needs since they can have shorter in-service timeframes



Long-Term 2 Request for Proposals (LT2 RFP) and Transmitter Selection Framework (TSF) Overview

Marko Cirovic, Senior Manager, Resource Development and Procurement

Steps to Meet the Emerging Needs

To keep pace with Ontario's economic and population growth, elimination of emissions from the grid, and electrification, the IESO is supporting multiple initiatives to meet emerging system needs, including:



Launching a **new Long-Term 2 Request for Proposals (LT2 RFP) for non-emitting resources**, as part of the IESO's Resource Adequacy Framework; and



Developing a **competitive transmitter selection framework** to support new transmission development and provide new opportunities to communities and transmitters.

What To Expect



Launching a new Long-Term 2 Request for Proposals (LT2 RFP) for non-emitting resources



Developing a competitive transmitter selection framework

Anticipated Involvement

- Provide input into the draft documents and RFP design
- Respond to inquiries from potential proponents
- Approve new generation or storage projects
- Participate in the procurement

- Provide input and feedback into the development of an enduring framework to guide new transmission development

Timing

- Report back to the Ministry of Energy March 2024
- Proposal submissions expected mid-2025

- Report back to the Ministry of Energy in summer 2024
- Next steps are dependent on Ministerial direction

Update on Procurements

LT1 RFP: Underway

- Proposal submission deadline was December 12, 2023; Proposal evaluation ongoing
- Targeting announcement of Selected Proponents in Q2, 2024

LT2 RFP: New

- **Today:** Start of IESO's outreach to communities
- Selected proponents targeted for end of 2025
- Schedule and key considerations presented on subsequent slides

FUTURE PROCUREMENTS: Timing TBD

- The IESO is committed to undertaking a series of long and medium-term procurements over the next several years to meet needs throughout this decade and into the 2030s



Long-Term 2 Request for Proposals (LT2 RFP)

Dave Barreca, Supervisor, Resource Acquisition, Resource Development and Procurement

LT2 RFP Overview (1/2)

To meet Ontario's growing energy needs, a series of medium- and long-term procurements will be required, in order to recommit existing resources and incentivize the development of new resources. The first of these new procurements is the LT2 RFP that will:



Acquire resources with non-emitting energy-producing profiles, such as wind, solar, hydroelectric, and bioenergy for:

- New-build resources, including utility scale generation, distributed energy resources, and long lead time resources (such as waterpower), and
- Existing non-emitting resources seeking to re-power in order to continue to contribute to Ontario's needs, including long lead time resources (such as waterpower).



Build on the E-LT1 and LT1 RFPs, including applying lessons learned. IESO will aim to provide additional visibility for future procurement opportunities, allowing for additional early engagement and project development.

LT2 RFP Overview (2/2)

Key details (cont'd):



Several policy drivers may influence project siting, including requirements for obtaining municipal support, enabling additional project development in northern Ontario, enabling development on Crown Land and potential agricultural land-use limitations, including limits to project development on CLI Class 1-3 Agricultural lands.



Timing will be key, specifically:

- LT2 contracts will need to be in-service by 2030
- The LT2 RFP will offer long-term contracts (i.e. 20 years)
- Other mechanisms, such as the MT2 RFP will offer flexible five-year terms and further medium- and long-term procurements will be executed on 2-year cycles

Proposed Long-Term Procurement Targets

The IESO proposes that minimum procurement targets can be set in the following manner:

Long-Term RFP	RFP Launch Date	Target Commercial Operation Date	Procurement Target* (for energy needs)	Additional Capacity Needs
LT2	2025	2029-2031	2,000 MW	TBD
LT3	2027	2032	1,500 MW	TBD
LT4	2029	2034	1,500 MW	TBD
TOTAL		2029-2034	5,000 MW	TBD

*Targets are indicative; the upcoming Annual Planning Outlook (APO) will provide firm guidance for the upcoming long-term procurement targets.

High-Level Structure Details and Changes for the LT2 RFP

Mandatory Requirements

- Some requirements will be similar to the LT1 RFP.
- Requirements will include:
 - ✓ **NEW** Non-emitting, energy producing resources
 - ✓ Indigenous and Community Engagement
 - ✓ Local Governing Body Support

Rated Criteria

- Awards additional points to projects that meet certain policy objectives
- Contemplating the same rated criteria for Indigenous participation as the LT1 RFP
- Contemplating the removal of rated criteria for municipal support but requiring municipal support by submission deadline as a mandatory requirement

Deliverability Process

- Process helps ensure resources can connect to the grid
- Given the nature of the LT2 RFP, a new deliverability testing process will be required to examine whether transmission constraints limit the amount of energy a proposed project can provide

LT2 RFP Timeline

January 2024
Community
Kick-off



March 2024
Report back to
government



Timeframe for proponents to
engage Indigenous
communities and municipalities



Mid 2025
Proponent Proposal
Submission Deadline



2030
Resource In-
Service



On-going engagement

Indigenous Community Participation

What to expect:

- **The design has been built on the LT1 RFP:** The LT2 RFP is expected to build upon the Indigenous participation mechanism utilized in the LT1 RFP, including some of the location-based rated criteria for Indigenous participation
- **In advance of proponent submission:** Proponents will reach out for equity partnerships in 2024/2025, if they are looking for rated criteria points
- **Your feedback is important:** IESO will be seeking input from both Indigenous communities and stakeholders as it contemplates design elements for the LT2 RFP

Municipal Participation

What to expect:

- **Requirements will evolve from the LT1 RFP:** IESO is proposing that evidence of municipal support will be mandatory ahead of proposal submission and Proponents will reach out much earlier on
- **Your feedback is important:** The IESO is seeking to apply lessons learned from past procurements and understand how to streamline relevant processes to benefit municipalities and Proponents



Transmitter Selection Framework (TSF)

Denise Zhong, Supervisor, Resource Acquisition, Resource Development and Procurement

Transmitter Selection Framework (TSF)

To meet Ontario's growing needs, developing a competitive transmitter selection framework (TSF) to support new transmission development and provide new opportunities to communities and transmitters will be required.

Key details include:



The Minister of Energy asked the IESO to **develop a transparent, competitive and well-understood process for selecting transmitters**, and to report back in summer 2024

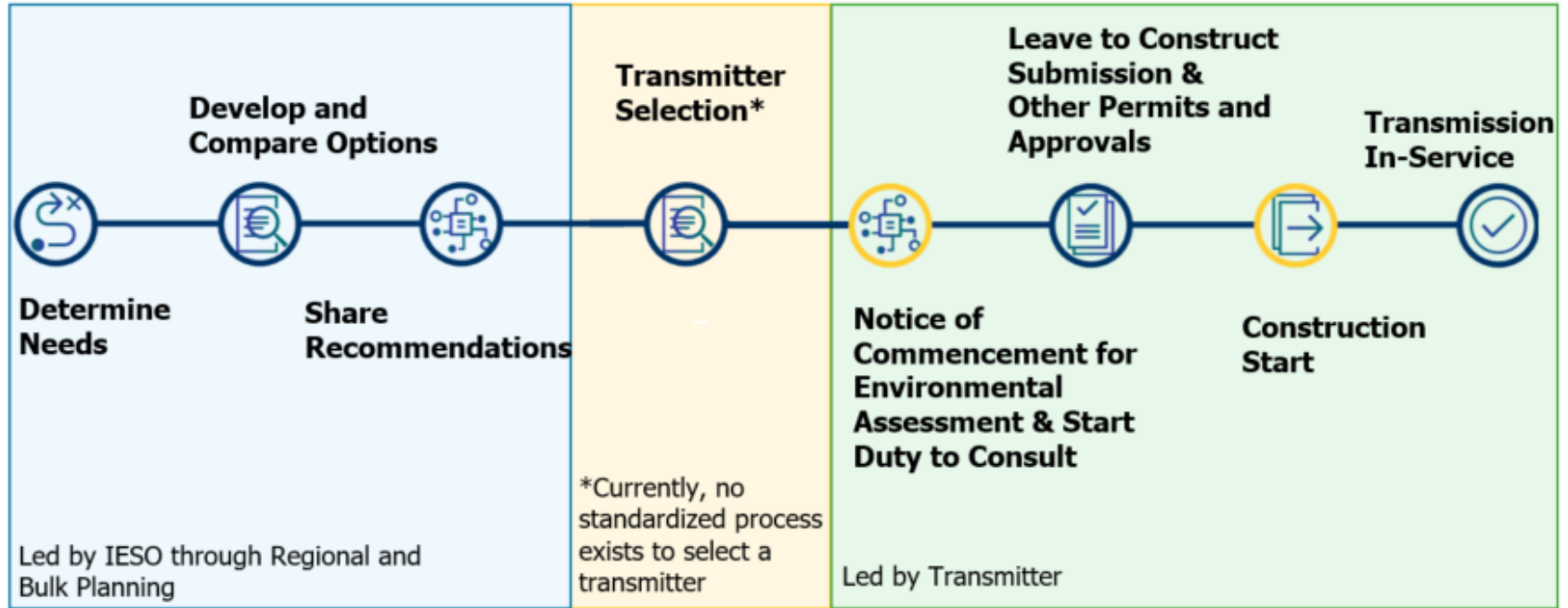


The competitive transmission framework **will aim to align with the IESO's planning processes**, provide new opportunities to Indigenous communities, ensure infrastructure development accommodates growth and support broader generation project siting



Insights, input and recommendations from Indigenous communities, municipalities, and stakeholders is critical for the design of the framework and evolution of the current process for transmission development

Current Process for Transmission Development



Engagement Approach

Insights, input and recommendations from Indigenous communities, municipalities, and stakeholders is critical for the design of the framework and evolution of the current process for transmission development.

Approach will include:



Public engagement sessions, as needed



Focused engagement sessions will be organized around a variety of topics pertinent to the design



1-on-1 discussions with Indigenous communities, municipalities, and stakeholders, as needed

Key Considerations During Upcoming Engagements

Through the planned engagements, the IESO will seek input on the following considerations:

Technical Design, and Performance

- Line selection considerations
- Technical and performance requirements
- Project scoping requirements
- Role of existing transmitters in plan development and project scoping

Policy Design

- Indigenous participation
- Perspective of municipalities
- Alignment with existing regulatory approvals, such as environmental permitting and timelines
- Role of existing transmitters

Commercial

- Revenue mechanism
- Risk allocation approach
- Term length
- Completion and financing considerations
- Cost containment considerations



Transmitter Selection Framework Timeline

January 2024

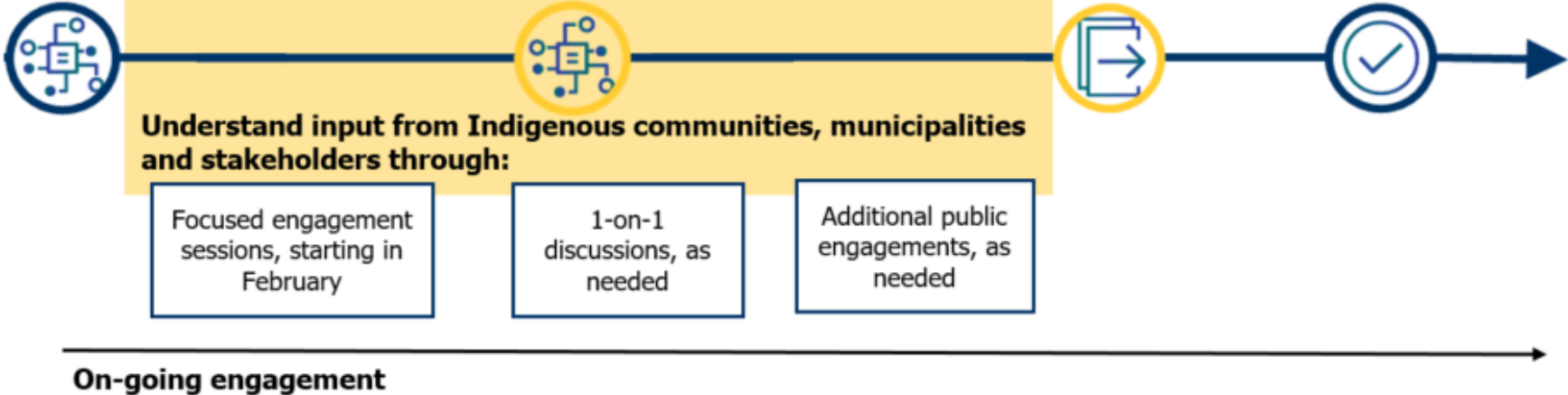
Community
Kick-off

Summer 2024

Report back to
Minister of Energy

Q4 2024 & Onward

Framework implementation
or refinement (pending
Minister direction)





Next Steps

Summary



Changing electricity landscape: Ontario is entering a period of need – by 2050, energy consumption could double. To meet the emerging needs, Ontario will require additional new electricity infrastructure, including new supply and transmission



New procurement focus: The LT2 RFP will focus on non-emitting resources to meet system needs by the end of this decade, with an anticipated target of ~2,000 MW



New transmitter selection framework: Developing a competitive transmitter selection framework to support new transmission development and provide new opportunities to communities and transmitters



Your feedback is integral: Designs and requirements for both new initiatives will be shaped by input from Indigenous communities, municipalities, and stakeholders

Get Involved



Join the Indigenous or municipal discussion break-out session to ask questions and share feedback about the materials shared today



The **IESO invites written feedback by February 7, 2024 for the LT2 RFP and the TSF.** All written feedback should be submitted to engagement@ieso.ca



For the LT2 RFP, the IESO will aim to continue engaging prior to submitting its report back to government in March 2024



To develop a competitive TSF, the IESO will undertake Focused Engagement Sessions and public engagements (as required), and is open to 1:1 meetings, prior to submitting its report back to government in summer 2024



To stay informed, please subscribe to receive email communications at www.ieso.ca/subscribe

Thank You

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- ✓ Join an engagement

CONTACT

- ✓ IndigenousRelations@ieso.ca
- ✓ CommunityEngagement@ieso.ca

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