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Hydrogen Innovation Fund: Stakeholder Feedback Summary, Final Program Guideline (Program Rules) and Application Window

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Purpose of Today's Webinar

To provide a summary of stakeholder feedback, the IESO's responses, overview of final program documents and confirm the application window

Agenda:

- Summary of Stakeholder Feedback and the IESO's Response
- Final Program Documents: What Has Changed?
- Proposal Submission Window and Required Forms
- Next Steps

Summary of Stakeholder Feedback and the IESO's Response

General

- The IESO would to like thank all the stakeholders for taking the time to provide thoughtful feedback on the Hydrogen Innovation Fund's Draft Guidelines.
- Detailed responses to the stakeholder feedback will be posted on the Low-Carbon Hydrogen Strategy engagement page.
- The next few slides will provide responses to the key themes that emerged from the stakeholder feedback.

Stakeholder Feedback Summary 1/3

Feedback	IESO Response
Two stakeholders recommended the in-service date for existing facilities be extended to allow applicants sufficient time to gather and analyze the necessary data to produce accurate and meaningful reports and prepare for the demonstration projects at existing facilities.	The deadline for demonstration projects at existing facilities to be in-service has been extended to **June 30, 2024.**
Two stakeholders suggested the in-service date for new demonstration projects be extended to Q1 or Q2 2026 to allow for adequate lead-time for equipment orders to be fulfilled and facilities to be commissioned, given the long lead times that are characteristic of current global supply chains.	The deadline for new demonstration projects to be in-service has been extended to **December 31, 2025.**

Stakeholder Feedback Summary 2/3

Feedback	IESO Response
Stakeholders unanimously indicated that the submission deadline for research / feasibility study reports will be a challenge and recommended extending the timelines to enable completion of high-quality research and feasibility studies. Proposed dates were March 31, 2024, June 30, 2024, and 12 months from contract execution.	The research and/or feasibility studies submission deadline has been extended to **June 30, 2024.**
Several stakeholders have requested additional clarity on the methodology the IESO will use to evaluate emission project impacts.	The Hydrogen Innovation Fund was developed to support Ontario's Low-Carbon Hydrogen Strategy. To address the "Emissions Impact" evaluation criterion, the proposal needs to demonstrate that emissions reduction/mitigation measures have been considered and/or incorporated into the project design, including for feasibility studies.

Stakeholder Feedback Summary 3/3

Feedback	IESO Response
Multiple stakeholders recommended expanding project eligibility to include (1) projects that produce hydrogen by utilizing either waste energy recovery from existing processes or waste heat from gas turbine exhaust as well as (2) behind-the-meter hydrogen projects.	The goal of Hydrogen Innovation Fund is to investigate, evaluate and demonstrate how hydrogen technologies can be integrated into Ontario's electricity grid. Potential demonstration projects, including those utilizing waste energy and those that are behind the meter, need to clearly indicate how the project can contribute to balancing and strengthening Ontario's electricity system.

Final Program Documents: What Has Changed?

Final Program Documents: What Has Changed? 1/2

Section	What Changed	Description
2.1.3	Deadlines for demonstration projects and research/feasibility studies	• The commencement date for demonstration projects at existing facilities has been extended from Dec 31, 2023 to **June 30, 2024**. • The commencement date for demonstration projects at new facilities has been extended from June 30, 2025 to **December 31, 2025**. • The deadline to receive research / feasibility studies has been extended from Dec 31, 2023 to **June 30, 2024.**
5	Addition of consideration for Indigenous and community engagement	• The "Project Team and Partners" Evaluation Criterion includes scoring for projects that demonstration consideration of community and Indigenous engagement and/or participation within their projects.

Final Program Documents: What Has Changed? 2/2

Section	What Changed	Description
8	Electrical Safety Authority	Guidance from the Electrical Safety Authority has been included, including relevant codes and standards to consider for hydrogen demonstration projects and feasibility studies.
9.1	Appendix A – Eligible Expenses clarification	Clarification on the threshold for contracts that require a competitive process: • $200,000 for existing and new demonstration project types • $50,000 for research and/or feasibility studies

- Final documents and templates will be posted Hydrogen Innovation Fund page

Proposal Submission Window, Required Forms and Next Steps

Proposal Submission Window

- Proposals must be submitted between **April 3, 2023 and May 5, 2023** to hydrogeninnovationfund@ieso.ca with the words "Hydrogen Innovation Fund RFP" in the subject line.
- Potential applicants are encouraged to reach out to the Hydrogen Innovation Fund team to discuss the project prior to submitting a proposal.

Proposal Required Forms

- Applicants must submit a completed proposal package outlined below, along with supporting documents outline in the Proposal Guideline by the proposal deadline.
- All proposal documents will be posted on the Hydrogen Innovation Fund webpage.
- Required Proposal Documents:
  - Completed HIF Project Proposal Templates (Part A and B)
  - HIF Project Brief Template
  - Supporting documentation (e.g. letters of support, audited financial statements, etc.)

Next Steps

Timing	Activity
April 3 – May 5	Accept proposals for Hydrogen Innovation Fund RFP
May – June 2023	Proposal evaluation and selection
Q3 2023	Execute contribution agreements with successful proponents

Appendices

Appendix A: Project Focus Areas

Potential Project Focus Area	Examples of Electricity System Functions to be Evaluated
Renewable / clean energy integration	• Smoothing of renewable output (storage and generation) • Utilization of surplus/constrained clean energy
Natural gas generation blending and/or 100% retrofit	• Low carbon hydrogen blended into fuel at existing natural gas facility would reduce emissions • Retrofit existing turbines at small combined heat and power plant to 100% hydrogen fuel input
Ancillary services	• Adjust electrolyzer load and/or fuel-cell output to respond to grid conditions
Feasibility studies	• Set aside portion of total program budget for cost-benefit or other studies and analytic work on feasibility of longer-term hydrogen solutions (e.g. hydrogen as a long-term electricity storage solution) • Feasibility studies could consider larger scale projects that advance Ontario's larger hydrogen strategy

Appendix B: Project Evaluation Criteria 1/4

All proposals will be assessed using the following weighted evaluation criteria.

Evaluation Criteria	Description	Points
Potential Impact	The project cost-effectively supports Ontario's evolving electricity system. The project demonstrates savings to ratepayers, produces efficient market outcomes and/or enhances electricity system reliability/operability. Clear metrics are included in the proposal indicating how ratepayer savings, market efficiencies and reliability/operability will be assessed.	10
Market Capability Building Impact	The project demonstrates the skills, knowledge and infrastructure required by the market to accelerate the adoption of hydrogen technologies in the electricity system.	5
Market, program or technical advancement	The project is testing a novel approach and advancement of the "state of the art" in Ontario. The project includes innovative arrangements that test new activities, services or business models for hydrogen project proponents that are not currently in-service in Ontario.	10

Appendix B: Project Evaluation Criteria 2/4

Evaluation Criteria	Description	Points
Project Team and Partners	The project team has the qualifications and experience required to execute a large-scale, strategic project. The project team provides evidence of appropriate partnerships, including a utility partner where appropriate. The project demonstrates consideration of community and Indigenous engagement and/or participation. Projects with a greater number of highly qualified, experienced and committed partners will be given greater points due to the capacity building aspects that such projects offer.	5
Emissions Impact	The proposal has assessed the greenhouse gas (GHG) emissions resulting from project activities. The proposal demonstrates a plan to limit GHG emissions increases or demonstrate economy-wide emissions reductions.	10

Appendix B: Project Evaluation Criteria 3/4

Evaluation Criteria	Description	Points
Project Funding	The overall funding proposal satisfies IESO funding requirements outlined in the Proposal Guideline Section 2.4, and appropriately allocates risk between the proponent, partners and the IESO. Higher points will be allocated to projects with a lower percentage of IESO funding vs. total project value. The budget items outlined in the Proposal Template Part B are relevant to achieving the objectives of the project and the Hydrogen Innovation Fund. Audited financial statements demonstrate the financial ability of the applicant to support their contribution to the project.	20
Project Purpose and Outcomes	The project purpose and outcomes are aligned with the Hydrogen Innovation Fund objectives and have the potential to influence technological evolution and wholesale market participation. The proposal clearly states which Project category and sub-category (Proposal Guideline Section 2.2) will be addressed, including identifying specific metrics that will be used to measure outcomes. The proposed deliverables demonstrate how the project will allow for the IESO to better understand the opportunities and challenges of hydrogen in the electricity system.	20

Appendix B: Project Evaluation Criteria 4/4

Evaluation Criteria	Description	Points
Project Design	The project's design is clear, reasonable and likely to meet the stated objectives. The project demonstrates the ability to integrate into the IESO-administered markets to provide system reliability or resiliency, where applicable. The scope, work plan and scheduled tasks are contained in a clear and logical framework that supports successful completion of the project (for example, any not yet in-service assets or other resources included in the project scope have already been commissioned or will be commissioned by Q2 2025).	20
Total Points		**100**

Appendix C: Review Process and Approval 1/2

- Submitted proposals will be screened for eligibility: project type and timeline; project category; project applicant; project funding
- Eligible proposals will be evaluated by a Business and Technical Review Committee composed of internal subject matter experts with the support of external technical experts if needed
- Projects will be evaluated based on published evaluation criteria

Appendix C: Review Process and Approval 2/2

- To ensure that the IESO funds projects under each type and in order to ensure ratepayers benefit from the learnings that can be provided by each type, the IESO will take the following approach until the $15M is allocated:
  - First select the highest scoring proposal from each project type
  - If funding is still available, select the highest scoring proposals of all remaining projects
- Applicants will be notified of the outcome in early Q3 2023

Thank You

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