# The Hydrogen Innovation Fund

# Request for Proposals

2023 Project Proposal Template: **Part A**

Applicant: Double-click here and type the name of your organization (short form) and date of proposal submission

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# Part 1: Detailed Project Description

## 1.1. Applicant Information

Key Information

|  |  |
| --- | --- |
| **Project Title:** | Click or tap here to enter text. |
| **Applicant:** | Click or tap here to enter text. |
| **Submission Date:** | Click or tap here to enter text. |

Applicant’s Designated Contact (e.g. project lead, project manager, etc.)

|  |  |
| --- | --- |
| **Name:** | Click or tap here to enter text. |
| **Title:** | Click or tap here to enter text. |
| **Mailing Address:** | Click or tap here to enter text. |
| **Phone:** | Click or tap here to enter text. |
| **Email:** | Click or tap here to enter text. |

Applicant’s Executive with Signing Authority (e.g. CEO, CFO, ED, etc.)

|  |  |
| --- | --- |
| **Name:** | Click or tap here to enter text. |
| **Title:** | Click or tap here to enter text. |
| **Mailing Address:** | Click or tap here to enter text. |
| **Phone:** | Click or tap here to enter text. |
| **Email:** | Click or tap here to enter text. |

Accessibility Disclaimer: This is a fillable form and not all of the content in this document may be captured by a screen-reading device. If you require additional assistance to complete and submit this form, please contact [hydrogeninnovationfund@ieso.ca](mailto:hydrogeninnovationfund@ieso.ca).

## 1.2 Brief Project Description

|  |
| --- |
| Provide a brief description of your project. Please keep your description to a maximum of 120 words. |

Click or tap here to enter text.

Expected Project Duration: Click or tap here to enter text. Months

## 1.3 Project Overview

Please check off all categories and markets that are applicable to your project

| **Project Category** | **Target Sector(s)** | **Project Type** |
| --- | --- | --- |
| Hydrogen Production from Electricity    Energy market participation  Demand response and/or capacity services  Ancillary services  Renewable integration  Electricity Generation from Hydrogen  Energy market participation  Hydrogen blending  Ancillary services  Energy storage  Integrating hydrogen & electricity within a broader hydrogen economy | Commercial  Institutional  Industrial  Agricultural  Other (please specify) | Strategic Opportunity  Existing facility  New facility  Research/feasibility study |

## 

## 1.4 Budget Overview

**Total Project Value (TPV) and Contributions – Over Full Project Duration**

Complete the table below following the example provided. Please list the names of any and all third party contributors and indicate whether or not their funding is confirmed. In addition to the budget outline below, Applicants must complete the Process Flow, Budget, Work Plan, Measuring Results, Project Risk Profile and Quantifiable Outcomes Excel template provided in Project Proposal Part B. “IESO Contribution” represents your cash request to the IESO. This request should not violate the leverage rules of the specific project category as stated in the Proposal Guideline.

| Contributors | Cash ($) | Cash (% of TPV) | In-Kind ($) | In-Kind (% of TPV) | Confirmed / Unconfirmed |
| --- | --- | --- | --- | --- | --- |
| Applicant contribution | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| [Name of Partner 1] contribution | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| [Name of Partner 2] contribution | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Subtotal (non-IESO contribution) | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| IESO Contribution | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| TOTAL PROJECT VALUE | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

Note: Add rows as necessary by clicking on the + sign

EXAMPLE:

| Contributors | Cash ($) | Cash (% of TPV) | In-Kind ($) | In-Kind (% of TPV) | Confirmed / Unconfirmed |
| --- | --- | --- | --- | --- | --- |
| XYZ Inc. contribution (applicant) | $500,000 | 20% | $225,000 | 9% | Confirmed |
| Utility A contribution | $100,000 | 4% | $50,000 | 2% | Confirmed |
| Software Co Inc. contribution | $200,000 | 8% | $100,000 | 4% | Confirmed |
| Subtotal (non-IESO contribution) | $800,000 | 32% | $375,000 | 15% | N/A |
| IESO Contribution | $500,000 | 20% | $0 | 0% | N/A |
| TOTAL PROJECT VALUE | $2,100,000 | 85% | $375,000 | 15% | $2,475,000 |

## 1.5 About the applying organization

|  |
| --- |
| Describe the mandate and composition of the applying organization. Provide:   * a brief history of the organization (1 paragraph max); * a description of the organization’s primary business activities; * a description of how the organization is funded and staffed; * a description of the role of the organization in the energy sector. |

Click or tap here to enter text.

1.6 About the project partners

|  |
| --- |
| Describe each of the partners’ organizations Provide:   * a brief history of the organization (1 paragraph max); * a description of the organization’s primary business activities; * a description of how the organization is funded and staffed; * a description of the role of the organization in the energy sector; * **a description of how the partner will contribute to this project (e.g. key activities, areas of expertise, etc.).** |

\*Insert Text here\*

1.7 Project Concept and Rationale

|  |
| --- |
| In this section, fully describe the proposed project by addressing each of the points below. Please be specific, detailed, concise and structured. Claims need to be supported by citation, evidence and/or calculations with stated assumptions. Do not use embellishment or adjectives to upsell the solution. Bullet points, equations, calculations and quantitative descriptions are strongly encouraged where appropriate. Equations need to be numbered. References/citations can either be provided as an attached document or at the end of this document. |
| 1.7.A. Describe the project concept and scope (max. 1 paragraph). |

Click or tap here to enter text.

|  |
| --- |
| 1.7.B. Describe the project rationale. Include an explanation of the electricity issues or barriers that the innovation solution faces. Describe how the project will allow for the IESO and broader industry to better understand the opportunities and challenges of hydrogen in the electricity system. |

Click or tap here to enter text.

|  |
| --- |
| 1.7.C. Describe similar projects/ solutions/research/technologies that exist in the market today. |

\*Insert Text here\*

|  |
| --- |
| 1.7.D. Describe how this project is unique and innovative from similar projects referenced above in 1.7.C. |

\*Insert Text here\*

|  |
| --- |
| 1.7.E. Describe how this project enables savings and/or cost reduction for ratepayers in Ontario produces efficient market outcomes and/or enhances electricity system reliability/operability. Please include clear metrics indicating how ratepayer savings, market efficiencies and reliability/operability will be assessed. |

\*Insert Text here\*

|  |
| --- |
| 1.7.F. List the technology solution(s) (e.g. hydrogen production, electricity generation from hydrogen, hydrogen storage, etc.) that will be included this project. If the proposal is research/ feasibility study, list the technology solution(s) being explored / assessed. |

\*Insert Text here\*

|  |
| --- |
| 1.7.G. Quantitatively describe in detail how this project will achieve expected results for metrics referenced in **Project Proposal Document Part B** Worksheet “**6. Quantifiable Outcomes**” including any sustainable energy savings and/or cost reductions and/or increased reliability. Claims need to be supported by  citation, evidence and/or step-by-step calculations with stated assumptions on how the outcomes were derived. All equations need to be numbered. |

\*Insert Text here\*

|  |
| --- |
| 1.7.H. How will the successes, metrics and savings listed above in 1.7.F persist beyond project completion? |

\*Insert Text here\*

|  |
| --- |
| 1.7.I. Should this project receive funding from the IESO, describe how the project will continue to sustain itself after the Hydrogen Innovation Fund term ends. |

\*Insert Text here\*

|  |
| --- |
| 1.7.J. A competitive bidding process is required for any subcontracts over $50,000.00 in value. If you require external consultants, please outline the key attributes and selection criteria you will use to make a decision. If you plan to continue using any third parties that have already been competitively procured, please provide information on them, including the role that they will play in this project, their existing contracted roles with your organization, and the manner and date that they were selected as your service providers. |

\*Insert Text here\*

|  |
| --- |
| 1.7.K Describe how the project has assessed the greenhouse gas (GHG) emissions due to project activities, including a plan to limit GHG emissions increases or demonstrate economy-wide emissions reductions |

\*Insert Text here\*

1.8 Technical & Scalability Assessment

In this section, fully describe the proposed project by addressing each of the points below. Please be specific, detailed, concise and structured. Claims need to be supported by citation, evidence and/or equations with step-by-step calculations with stated assumptions. Do not use embellishment or adjectives to upsell the solution. Bullet points, equations, calculations and quantitative descriptions are strongly encouraged where appropriate. Equations need to be numbered. References/citations can either be provided as an attached document or at the end of this document.

1.8.1. Technology

|  |
| --- |
| 1.8.1.A. Describe the proposed project’s technology in detail. Clearly establish the basis for the project’s novelty and technical and functional superiority. Describe the innovative arrangements that will test new activities, services or business models for hydrogen project proponents that are not currently in-service in Ontario. Provide diagrams, designs, equations, etc. as necessary (within this document). |

\*Insert Text here\*

|  |
| --- |
| 1.8.1.B. Outline work completed to date confirming/validating the feasibility of the project’s technology (e.g. trials, third party validation, and expert comment). List any patents secured or applied for (include status). |

\*Insert Text here\*

|  |
| --- |
| 1.8.1.C. Describe the current state of any programs/research/technologies proposed to be undertaken, the state of development this project is intended to achieve, and activities required to establish commercial readiness. Please note which activities fall under the scope of this project. |

\*Insert Text here\*

|  |
| --- |
| 1.8.1.D. Check off all functionalities below that relate to the project, specifically around dispatching, operations, and research. Briefly describe how the project will demonstrate the functionalities. |

### 1.8.1.1 Dispatching and Operations

| **Functionality** |  | **How will the project demonstrate this functionality?** |
| --- | --- | --- |
| Demonstrate price-responsiveness to wholesale market conditions |  | Click or tap here to enter text. |
| Demonstrate the ability to provide operating reserve through completion of IESO prescribed test case |  | Click or tap here to enter text. |
| Demonstrate the ability to provide demand response through completion of IESO prescribed test case |  | Click or tap here to enter text. |
| Demonstrate the ability to provide regulation services through completion of IESO prescribed test case |  | Click or tap here to enter text. |
| Demonstrate ramping capabilities through completion of IESO prescribed test case |  | Click or tap here to enter text. |
| Follow IESO renewable smoothing signal for a minimum of 5 days over the duration of the project |  | Click or tap here to enter text. |
| Respond to and follow an IESO marginal emissions signal for a minimum of 5 days over the duration of the project[[1]](#footnote-2) |  | Click or tap here to enter text. |
| Demonstrate the provision of capacity services through participation in the Industrial Conservation Initiative or Interruptible Rate Pilot |  | Click or tap here to enter text. |
| Report on impact of hydrogen blending with natural gas on combustion performance |  | Click or tap here to enter text. |
| Performance of energy storage using hydrogen including round trip efficiency, hourly price-quantity pairs, charge/discharge profile (i.e. when is it economic to charge and discharge), ramp rate, availability, energy management, etc. |  | Click or tap here to enter text. |

### 1.8.1.2 Integrating hydrogen & electricity within a broader hydrogen economy

| **Functionality** |  | **How will the project demonstrate this functionality?** |
| --- | --- | --- |
| Research/feasibility study that assess larger integration challenges of hydrogen, the electricity system, and the economy | ☐ | Click or tap here to enter text. |
| Site specific research/feasibility study | ☐ | Click or tap here to enter text. |

### 1.8.1.3 Hydrogen Resource Operationalization (Optional)

The IESO recognize that there may be additional operational barriers not discussed above that can prevent hydrogen resources from participating in wholesale markets and distribution systems. ‘Please complete this optional section if your project addresses a barrier not identified above.

| **Functionality** |  | **How will the project demonstrate this functionality?** |
| --- | --- | --- |
| The project clearly identifies an operational barrier (not discussed above) and proposes a demonstration/ research/simulation on how the barrier can be overcome | ☐ | Click or tap here to enter text. |
| The projects / programs / tools / solutions / research / technologies benefits the wholesale and distribution system | ☐ | Click or tap here to enter text. |

|  |
| --- |
| 1.8.1.E. What makes your proposed solution unique from and superior to those of your competitors and current baseline technologies? How does the performance of your solution compare against other solutions? Using the table below, demonstrate your understanding of the performance of these other programs/tools/solutions/research/technologies, and specify your performance goals. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Competitor Name** | **Measure (Technology)** | **Performance Factor 1 (specify)** | **Performance Factor 2 (specify)** | **Performance Factor 3 (specify)** |
| Click or tap here to enter text. | Your technology (specify) | e.g. Electrolyzer efficiency (%) | e.g. Cost of generation ($/MWh) | e.g. Incremental Cost ($) |
| Click or tap here to enter text. | Baseline technology (specify) | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Competing technology 1 (specify) | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Competing techafnology 2 (specify) | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Add additional lines as necessary | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

Note: Demand side technologies should reference baseline and competing technologies (measures) listed in the IESO’s Measures and Assumptions List:

Specify the performance factors most relevant to your technology and critical to competitive advantage in your market place.

Please list references for all figures used:

1.Click or tap here to enter text.

2.Click or tap here to enter text.

|  |
| --- |
| 1.8.1.F. Please describe how cyber security has been factored into your project and any standards/controls/tools that will be implemented to mitigate cyber security risk. |

\*Insert Text here\*

1.8.2. Market

|  |
| --- |
| In this section, please describe the market that could utilize/implement the solution being proposed in this application. |
| 1.8.2.A. Describe the target market. Please include references. |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.B. What is the potential size, structure and trends of your target market?  Please include references. |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.C. List current and potential customers in Ontario and please include level of interest and timeline for potential adoption by customers.  Please include references. |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.D. What are the non-regulatory and non-policy barriers to entry in your target market? How is this project designed to address those? |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.E. Outline the commercialization plan for the product, such as scaling up production and growing the company. Please include targets/thresholds that the projects needs to reach in order to commercialize/scale. |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.F. Who specifically are your competitors and what is their market share?  Please include references. |

\*Insert Text here\*

|  |
| --- |
| 1.8.2.G. Describe your sales and distribution strategy to obtain the potential identified customers. |

\*Insert Text here\*

1.8.3. Business Model

|  |
| --- |
| 1.8.3.A. Has there been an agreement reached to work together with key suppliers/partners after the pilot? **(I.e. an MOU/agreement level) If there are alternatives to these key partners/activities for the future, please describe them.** |

\*Insert Text here\*

|  |
| --- |
| 1.8.3.B. Please state whether the programs/tools/technologies are likely to be financially feasible for scaling following project completion. (I.e. Are there customers that are ready to purchase the product? What is the estimated payback period and underlying assumptions?) Claims need to be supported by citation, evidence and/or step-by-step calculations with stated assumptions on how the outcomes were derived. All equations need to be numbered. |

\*Insert Text here\*

|  |
| --- |
| 1.8.3.C. If the programs/tools/technologies are currently not financially feasible, please explain what will enable them to become commercially viable (e.g. lower technology cost). Please indicate if/how this project will address this.  Claims need to be supported by citation, evidence and/or step-by-step calculations with stated assumptions on how the outcomes were derived. All equations need to be numbered. |

\*Insert Text here\*

|  |
| --- |
| 1.8.3.D. Please list any assumed grants/incentives for financial feasibility. If these grants/incentives were no longer available, would the project still be financially feasible? |

\*Insert Text here\*

|  |
| --- |
| 1.8.3.E. Please state whether the facility/project plans to receive other sources of funding or income from other IESO-administered programs or markets over the duration of the project. |

\*Insert Text here\*

1.8.4. Policy and Regulatory Consideration(s)

|  |
| --- |
| In this section, please describe how the project relates to current policy or regulatory activities, whether the projects facing policy and/or regulatory barriers and how the outcomes of the project can help to advance policy and regulation. |
| 1.8.4.A. Please describe how the project relates to current policy or regulatory activities. What are policy or regulatory barriers that the solution is currently facing? |

\*Insert Text here\*

|  |
| --- |
| 1.8.4.B. How will learnings from this project help to inform and/or advance current or future policy or regulatory activities? |

\*Insert Text here\*



# Part 2: Evaluation Criteria

The details of the evaluation criteria are provided below for your reference. Applicants with highly ranked applications will be provided with the opportunity to work with the Review Committee to refine their applications to address any questions and/or feedback.

|  |  |  |
| --- | --- | --- |
| **Category** | **Evaluation Criteria** | **Weighting** |
| Potential Impact | The project cost-effectively supports Ontario's evolving electricity system. The project demonstrates savings to rate payers, 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 points |
| 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 points |
| 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 points |
| Project Team & 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. 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 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. 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 points |
| 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 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 points |
| Emissions Impact | The project has assessed the greenhouse gas (GHG) emissions due to project activities. The proponents have developed a plan to limit GHG emissions increases or demonstrate economy-wide emissions reductions. | 10 points |

# Part 3: Project Team & Partners

In this section, please outline the composition of the project team and list any project partners. Note the role that each person and organization participating in the project will play. Include the applicant organization in this table. If a third party is not yet part of the team, please identify the accountability they will be responsible for and enter TBD for the name and organization. Letters confirming the role and responsibilities of any and all partners must be included with the application. Please attach CVs for project team members as an appendix.

## 3.1 Project Team

|  |  |  |
| --- | --- | --- |
| **Project team member** | **Organization and job title** | **Major accountability** |
| Click or tap here to enter text. | Click or tap here to enter text. | e.g. Project lead |
| Click or tap here to enter text. | Click or tap here to enter text. | e.g. Evaluation, Measurement and Verification |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

## 3.2 Project Partners

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Organization** | **Project Role**  (e.g. participant, funder) | **Contribution Amount** | **Contribution** **Type**  (Cash / in-kind) | **If in-kind Contribution, please specify in what form** (e.g. Domain Expertise Consulting, Equipment) | **Status**  (Confirmed/Unconfirmed)  \*Please note that if you are invited to submit a proposal your partner must confirm their contribution in writing to the IESO. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
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\*Note: Add rows as necessary

## 3.3 Project Proposal Part B

|  |
| --- |
| Using the space provided in this section, fully describe how the work for this project will be undertaken and what the outcomes of the work will be.. |
| A. In one sentence, state the ultimate objective and the outcome of this project. |

\*Insert Text here\*

|  |
| --- |
| B. Use the templates provided in the Project Proposal Part B Excel File to provide additional details about your project’s detailed budget, workplan, risk assessment, measuring results, quantifiable outcomes and process flow to achieve the project outcomes from successful completion of project objectives. Examples for  each of these worksheets is provided in the document for your reference. |

Process Flow: the process flow should demonstrate how your project will achieve its objectives. Your Process Flow should explain how the project’s activities and deliverables lead to the desired immediate, intermediate, long term, and ultimate outcomes. The process flow should provide a complete picture of the project, and should reflect the more detailed description that is provided through the milestone schedule, the budget and work plan. The process flow should be attached to the proposal in a separate document appended to this proposal, and can be made using a variety of software tools. The completion of the Process Flow will assist you in designing the short- and long-term outputs and outcomes of your project.

Budget: The detailed project budget should provide information about all activities undertaken as part of the project and reflect the in-kind and cash contributions of the applicant and any and all project partners. Please refer to the Proposal Guideline posted on the February 22nd entry of the [Low-Carbon Hydrogen Strategy](https://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/Low-Carbon-Hydrogen-Strategy) webpage for information about eligible and ineligible expenses.

Work Plan: Please fill out the Work Plan tab according to the instructions in the file. The items that you include in this document must match the deliverables and major task areas described in the milestone section 3.3.

Measuring Results: Measuring Results captures the performance indicators of each activity/deliverable, its associated target results and the timeframe of the results. This complements Section 4A of the written proposal.

Project Risk Profile: The risk profile should include as many risks as you think may possibly impact the project scope, budget or timeline.

Quantifiable Outcomes: Please complete the Quantifiable Outcomes according to the instructions in the file. Please note that for each outcome, you will need to include which section of the proposal is the outcome described and substantiated.

## 3.4 Project Plan

Using the milestone table provided below, provide a milestone schedule listing the deliverables and major activities in each task area. Describe each of the major task areas for this project (e.g. program design, development of training, measurement and verification, research, communications, knowledge transfer, etc.). Describe each of the major deliverables that will be provided to the IESO as part of this project. Please indicate which 3rd parties will also receive these deliverables, where applicable.

Milestones typically occur 3-6 times throughout the course of the project. For approved projects, milestone deliverables are submitted with a milestone report to the Hydrogen Innovation Fund and form the basis for the release of funding. Consequently, please provide full, detailed description of deliverables. Milestone payments will not be made until all deliverables for that milestone have been satisfactorily completed.

The milestone schedule should be aligned with the completed worksheets as part of the Project Proposal Part B Milestone payments are based on the project costs incurred as described in the budget for that milestone.

**For each deliverable listed for each milestone, please include activities, method of measurement and target results. An example is provided as part of the first milestone in section 3.3 below. If you have checked off any functionalities identified in section 1.7.1.D of this proposal, please include the details on how you will demonstrate the results as a deliverable in the appropriate milestone(s).**

Click or tap here to enter text.

3.2.B If applicable, please provide a list of demonstration sites / project participants of the pilot project and indicate if the sites/participants have been confirmed. If the sites/participants are not confirmed, please provide an approximate timeline of when it will be confirmed and what factors are dependent on the sites/participants confirmation.

3.2.A. If applicable, please provide a list of hardware/equipment that will be purchased and installed as part of this pilot project.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Equipment** | **Equipment Specification** | **Purchased**  (Yes/No) | **Installed**  (Yes/No) | **Installation Location**  **\*DO NOT PROVIDE RESIDENTIAL ADDRESSES\*** | **Approximate Installation Date** |
| e.g. Electrolyzer | e.g. 10MW | e.g. No | e.g. No | e.g. 123 ABC St. Toronto, CA | e.g. July 2024 |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

\*Note: Add rows as necessary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site** | **Location**  **\*DO NOT PROVIDE RESIDENTIAL ADDRESSES\*** | **Status**  (Confirmed / Not Confirmed) | **Approximate Confirmation** | **Factors impacting confirmation** |
| e.g. 2 | e.g. 456 ABC St. Toronto, CA | e.g. Confirmed | e.g. N/A | e.g. N/A |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
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\*Note: Add rows as necessary

|  |  |  |  |
| --- | --- | --- | --- |
| **Participant** | **Status**  (Confirmed / Not Confirmed) | **Approximate Confirmation** | **Factors impacting confirmation** |
| e.g. 1 | e.g. Confirmed | e.g. N/A | e.g. N/A |
| e.g. 2 | e.g. Not-Confirmed | e.g. June 2023 | e.g. Awaiting approval from Company X’s Board of Directors for financial contribution |

\*Note: Add rows as necessary

## 3.5 Milestone Description

|  |  |
| --- | --- |
| Milestone 1: **[Title]** | Submission Date: **[XX] months from project start date** |
| IESO Contribution Amount:  \*Final project milestone value must represent a minimum of  10% of Fund grant\* | $XX |
| Total Milestone Value: | $XX |
| Brief description of how this milestone advances the project:Click or tap here to enter text.  \*EXAMPLE: Commissioning of electrolyzer and balance of plant, and development of testing plan and bid/offer structure\* | |
| Detailed activities in each major task area that will be completed:  Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document  Click or tap here to enter text.  Example   1. Scope/Concept Definition:    1. Complete Scope Definition (e.g. Pre-Project Outline)    2. As-built drawings and preliminary commissioning plan 2. Project Plan    1. Integrated project schedule for the Hydrogen Project including the development of e.g. the hydrogen facility, electricity generation and hydrogen storage (as applicable)    2. Description of how the Hydrogen Project intends to execute the project including the development and engineering stages 3. Commissioning Planning    1. A description of the key risks linked to commissioning and how these will be managed    2. A description of the challenges anticipated and the associated potential mitigations / solutions to these    3. A description of the resources to support this aspect the project. 4. Develop Test Plan and Bid/Offer Structure    1. Develop detailed Test Plan on how performance will be measured    2. Review detailed Plan with IESO 5. Scope/Concept Definition:    1. Complete Scope Definition (e.g. Pre-Project Outline)    2. As-built drawings and preliminary commissioning plan 6. Project Plan    1. Integrated project schedule for the Hydrogen Project including the development of e.g. the hydrogen facility, electricity generation and hydrogen storage (as applicable)    2. Description of how the Hydrogen Project intends to execute the project including the development and engineering stages 7. Commissioning Planning    1. A description of the key risks linked to commissioning and how these will be managed    2. A description of the challenges anticipated and the associated potential mitigations / solutions to these    3. A description of the resources to support this aspect the project. 8. Develop Test Plan and Bid/Offer Structure    1. Develop detailed Test Plan on how performance will be measured    2. Review detailed Plan with IESO 9. Scope/Concept Definition:    1. Complete Scope Definition (e.g. Pre-Project Outline)    2. As-built drawings and preliminary commissioning plan 10. Project Plan     1. Integrated project schedule for the Hydrogen Project including the development of e.g. the hydrogen facility, electricity generation and hydrogen storage (as applicable)     2. Description of how the Hydrogen Project intends to execute the project including the development and engineering stages 11. Commissioning Planning     1. A description of the key risks linked to commissioning and how these will be managed     2. A description of the challenges anticipated and the associated potential mitigations / solutions to these     3. A description of the resources to support this aspect the project. 12. Develop Test Plan and Bid/Offer Structure   Develop detailed Test Plan on how   1. Project Plan    1. Integrated project schedule for the Hydrogen Project including the development of e.g. the hydrogen facility, electricity generation and hydrogen storage (as applicable)    2. Description of how the Hydrogen Project intends to execute the project including the development and engineering stages 2. Commissioning Planning    1. A description of the key risks linked to commissioning and how these will be managed    2. A description of the challenges anticipated and the associated potential mitigations / solutions to these    3. A description of the resources to support this aspect the project. 3. Develop Test Plan and Bid/Offer Structure   Develop detailed Test Plan on how   * 1. performance will be measured   2. Review detailed Plan with IESO | |

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Method of Measurement | Target Result | Unit |
| 1. \* Example Develop test plan | \* Complete detailed test plan outlining market services to be provided | \* Test plan approval | Document |

Identified Risks and Risk Mitigation Strategy

As referenced in Worksheet titled “5. Project Risk Profile”

|  |  |  |
| --- | --- | --- |
| Risk ID | Identified Risk | Risk Mitigation Strategy |
| 1 | \* Example Delay in commissioning process | \* Example Ensure construction is substantially complete, schedule start/end dates for commissioning, ensure applicable resources are available, ensure all approvals are in place prior to commissioning |
| 2 | Click or tap here to enter text. | Click or tap here to enter text. |
| 3 | Click or tap here to enter text. | Click or tap here to enter text. |

Click or tap here to enter text.

Deliverables to IESO:

\*Example\*

1. Preliminary Scope Report including engineering design (as applicable.
2. Project Plan and Integration Plan
3. Commissioning Plan
4. Test Plan and Bid/Offer Structure

Detailed activities in each major task area that will be completed:

Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document

Brief description of how this milestone advances the project:

\*Insert Text here\*

|  |  |
| --- | --- |
| Milestone 2: **[Title]** | Submission Date: **[XX] months from project start date** |
| IESO Contribution Amount:  \*Final project milestone value must represent a minimum of  10% of Fund grant\* | $XX |
| Total Milestone Value: | $XX |

\*Insert Text here\*

Quantifiable Objectives Advancing This Milestone

Please include any quantifiable objectives as described in project activities here i.e. survey responses, energy targets, procurement activities, widget installation etc.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Method of Measurement | Target Result | Unit |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |  |
|  |  |  |  |

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Identified Risks and Risk Mitigation Strategy

As referenced in Worksheet titled “5. Project Risk Profile”

|  |  |  |
| --- | --- | --- |
| Risk ID | Identified Risk | Risk Mitigation Strategy |
|  | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. |  | Click or tap here to enter text. |
|  |  |  |

\*Insert Text here\*

Deliverables to IESO:

Brief description of how this milestone advances the project:

\*Insert Text here\*

Detailed activities in each major task area that will be completed:

Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document

|  |  |
| --- | --- |
| Milestone 3: **[Title]** | Submission Date: **[XX] months from project start date** |
| IESO Contribution Amount:  \*Final project milestone value must represent a minimum of  10% of Fund grant\* | $XX |
| Total Milestone Value: | $XX |

Insert Text here

Quantifiable Objectives Advancing This Milestone

Please include any quantifiable objectives as described in project activities here i.e. survey responses, energy targets, procurement activities, widget installation etc.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Method of Measurement | Target Result | Unit |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
|  |  |  |  |

Identified Risks and Risk Mitigation Strategy

As referenced in Worksheet titled “5. Project Risk Profile”

|  |  |  |
| --- | --- | --- |
| Risk ID | Identified Risk | Risk Mitigation Strategy |
|  | Click or tap here to enter text. | Click or tap here to enter text. |

Insert Text here

Deliverables to IESO:

|  |  |
| --- | --- |
| Milestone 4: **[Title]** | Submission Date: **[XX] months from project start date** |
| IESO Contribution Amount:  \*Final project milestone value must represent a minimum of  10% of Fund grant\* | $XX |
| Total Milestone Value: | $XX |

Insert Text here

Detailed activities in each major task area that will be completed:

Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document

Brief description of how this milestone advances the project:

\*Insert Text here\*

Quantifiable Objectives Advancing This Milestone

Please include any quantifiable objectives as described in project activities here i.e. survey responses, energy targets, procurement activities, widget installation etc.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Method of Measurement | Target Result | Unit |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

Identified Risks and Risk Mitigation Strategy

As referenced in Worksheet titled “5. Project Risk Profile”

|  |  |  |
| --- | --- | --- |
| Risk ID | Identified Risk | Risk Mitigation Strategy |
|  | Click or tap here to enter text. | Click or tap here to enter text. |
|  |  |  |
|  |  |  |

\*Insert Text here\*

Deliverables to IESO:

|  |  |
| --- | --- |
| Milestone 5: **[Title]** | Submission Date: **[XX] months from project start date** |
| IESO Contribution Amount:  \*Final project milestone value must represent a minimum of  10% of Fund grant\* | $XX |
| Total Milestone Value: | $XX |
| Brief description of how this milestone advances the project:  Insert Text here | |
| Detailed activities in each major task area that will be completed:  Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document | |
| Detailed activities in each major task area that will be completed:  Please reference “Unique Line Item ID” for each activity as cited in the worksheet titled “2. Budget” as part of Project Proposal Part B document  Insert Text here | |
| Quantifiable Objectives Advancing This Milestone  Please include any quantifiable objectives as described in project activities here i.e. survey responses, energy targets, procurement activities, widget installation etc.   |  |  |  |  | | --- | --- | --- | --- | | Activity | Method of Measurement | Target Result | Unit |   Click or tap here to enter text.Click or tap here to enter text.Click or tap here to enter text.Click or tap here to enter text. | |
| Identified Risks and Risk Mitigation Strategy  As referenced in Worksheet titled “5. Project Risk Profile”   |  |  |  | | --- | --- | --- | | Risk ID | Identified Risk | Risk Mitigation Strategy |   Click or tap here to enter text. Click or tap here to enter text. | |
| Deliverables to IESO:  Insert Text here | |

\*\*\*Add/Delete Milestones Tables as required

# Part 4: Measuring Results: Evaluation Measurement

|  |
| --- |
| 4.A. Use the information provided in Section 3.2 and 3.3 to develop a detailed account of how the progress and impacts of this project will be accurately assessed. Fill in this information in the “4. Measuring Results” Worksheet in Project Proposal Part B. |

Note: Measuring results requires a performance indicator to be established for each project outcome and deliverable as well as a plan for how it will be measured. This enables the IESO to monitor not only the progress of the project, but its effectiveness at achieving its objectives. The process flow and the project plan are useful guides in completing this table.

Measurement and evaluation of the activities described in your measuring results worksheet should be accounted for in the project budget. Proper measurement and evaluation is a very important element for Hydrogen Innovation Fund projects, and therefore sufficient resources should be allocated for this purpose.

For measurement of energy savings, you should follow the [IPMVP](https://evo-world.org/en/products-services-mainmenu-en/protocols/ipmvp) (International Performance Measurement and Verification Protocol) that the IESO uses as its standard.

|  |
| --- |
| 4.B. Economic Development |
| In this section please describe the development of the labour force that will occur as a result of:   1. Creation of new jobs through this project\*; 2. Number of jobs that this project will support excluding new job creation. 3. Learning of new skills by workers in existing positions; 4. Potential additional and/or indirect employment opportunities that may be created by you and your partner organizations   \*Note: For A) and B) please provide an estimate of the duration of the employment that will be created (e.g.: 2 weeks, 6 months, 5 years, etc.) |

\*Insert Text here\*

# Part 5: References

In this section, please provide three references that the IESO may contact to discuss your project. Examples of references could include: co-funders, or other parties who can attest to the strength of the project proposal and the project team. 3rd party project participants should not be listed as references.

Reference 2

Reference 3

Reference 1

|  |  |
| --- | --- |
| **Name:** | Click or tap here to enter text. |
| **Job Title:** | Click or tap here to enter text. |
| **Organization:** | Click or tap here to enter text. |
| **Relationship:** | Click or tap here to enter text. |
| **Email:** | Click or tap here to enter text. |
| **Phone:** | Click or tap here to enter text. |

|  |  |
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| **Name:** | Click or tap here to enter text. |
| **Job Title:** | Click or tap here to enter text. |
| **Organization:** | Click or tap here to enter text. |
| **Relationship:** | Click or tap here to enter text. |
| **Email:** | Click or tap here to enter text. |
| **Phone:** | Click or tap here to enter text. |

|  |  |
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| **Name:** | Click or tap here to enter text. |
| **Job Title:** | Click or tap here to enter text. |
| **Organization:** | Click or tap here to enter text. |
| **Relationship:** | Click or tap here to enter text. |
| **Email:** | Click or tap here to enter text. |
| **Phone:** | Click or tap here to enter text. |

\*Insert more if necessary

# Part 6: Application Instructions

|  |
| --- |
| Use this list to verify that the requested items have been completed and included in your electronic package.  Please use the following labeling convention for your electronic submissions: Please scan statements and materials that require signatures, as electronic versions of all materials are preferred. Additional materials will not be considered in your review unless specifically requested by IESO. |
| **Submission check list:**   1. Cover letter from applicant, signed by applicant executive with signing authority 2. Completed Proposal Part A template (this file) 3. Completed Proposal Part B template, including 6 tabs plus a cover tab (excel) 4. Completed Project Brief template 5. Most recent audited financial statements of applying organization 6. Signed Letters of Support from each project partner specifying all cash and/or in-kind commitments to the project 7. Copy of the lead organization’s certificate of incorporation 8. Signed final page of proposal (this page) 9. CVs of Project Team (max. 2 pages each)   **Please acknowledge that the applicant has reviewed and understands the terms and conditions contained in the template Hydrogen Innovation Fund Agreement posted** [here](https://ieso.ca/en/Get-Involved/Funding-Programs/Grid-Innovation-Fund/Targeted-Call-for-Proposals)**. The IESO will not be able to accommodate applicants’ requests for changes to the terms and conditions. Successful project proponents will have one (1) week to review, sign and send the agreement back to the IESO for countersignature.**  Submit these files no later than **Friday,** **May 5th, 2023, 11:59pm** to [hydrogeninnovationfund@ieso.ca](mailto:hydrogeninnovationfund@ieso.ca). |
| **List** **of Additional Documents attached to this proposal**  Please list any other documents included in this proposal including Letters of Support from sites for proposals that involve piloting at specific sites |
| |  |  | | --- | --- | | Attachment 1 |  | | Title of Document: | Click or tap here to enter text. | | Description of Document: | Click or tap here to enter text. | |  | Attachment 2 | | Title of Document: | Click or tap here to enter text. | | Description of Document: | Click or tap here to enter text.  Attachment 3 | |  |  | | Title of Document: | Click or tap here to enter text. | | Description of Document: | Click or tap here to enter text. | |

\*Insert more if necessary

**\*\*PRINT, SIGN AND SCAN THIS PAGE (SIGNATURE REQUIRED) \*\***

# Part 7: Declaration

|  |
| --- |
| I attest to the accuracy of the content of this proposal and the attached financial statements. |
| Signature:  Name:  Date: |

|  |
| --- |
| **Disclaimer**  Receipt of an application to the Hydrogen Innovation Fund does not constitute a commitment by the IESO to support the application, nor does it create a business relationship between the applicant, its partners and the IESO. Executive approval is required for the Hydrogen Innovation Fund to provide any financial support to any project, and the IESO will not provide financial support for the work of applicants performed prior to executive approval of that project. The decision of the executive team is final and takes precedent over prior communications. Financial support from the IESO to an applicant to the Hydrogen Innovation Fund will only be provided upon execution of the contribution agreement between the applicant and the IESO, and only according to the terms and conditions therein. The IESO reserve the right to make public the names of applicants, the title and a description of their proposed project, the amount of funds applied for. All other information submitted by the applicant in their proposal application will be treated as confidential. |

Independent Electricity

System Operator

1600-120 Adelaide Street West

Toronto, Ontario M5H 1T1

Phone: 905.403.6900

Toll-free: 1.888.448.7777

E-mail: [customer.relations@ieso.ca](mailto:customer.relations@ieso.ca)

[ieso.ca](http://www.ieso.ca/)

Twitter symbol [@IESO\_Tweets](https://twitter.com/IESO_Tweets?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor)

LinkedIn symbol [linkedin.com/company/IESO](https://www.linkedin.com/company/ieso/)

1. Provided IESO is able to complete the emissions signal while the project is active [↑](#footnote-ref-2)