Feedback Form

Small Hydro Program Design, March 2022

Feedback Provided by:

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To promote transparency, feedback submitted will be posted on the IESO webpage unless otherwise requested by the sender.

Following the (date) Small Hydro Program Design Outreach Session, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the following discussed items. Background information related to these feedback requests can be found in the presentation, which can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca **by (date)**. If you wish to provide confidential feedback, please mark the document "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Small Hydro Program – Engagement Approach

Topic	Feedback
What questions or feedback do you have about the IESO's engagement approach?	We appreciate the opportunity to review the initial concepts of the Small Hydro Program and engage with the IESO to offer feedback based on our experience and expertise in the industry.

Small Hydro Program – Principles & Goals

Topic	Feedback
What questions or feedback do you have on the design goals for the program?	Click or tap here to enter text.
What questions or feedback do you have on the principles that the design is founded on? (focus on value, promote competition, incent market-driven operations and allow for flexibility in future system operation).	Click or tap here to enter text.

Small Hydro Program – Design Concepts

Topic	Feedback
What questions or feedback do you have relating to **Design Concept #1: Capacity Payments**	It is unclear how the capacity payment will be structured. The IESO has not offered any concept or rate range to review in order for generators to understand how capacity payments will be calculated and administered.
What questions or feedback do you have relating to **Design Concept #2: Dispatchability**	It is unclear what defines a facilities ability to be dispatched. Some facilities do have flexibility to spill and reduce generation or pond and store generation for future dispatching. The Design Concepts do not offer any thresholds to meet or a definition of dispatchability. By design the previous programs have incentivized on peak production in a flat rate manner. This allowed operators to decide if this operating strategy is feasible and encouraged facilities to operate in a manner that generally follows the dispatching

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	needs of the IESO without engagement or complexity.
Is your facility currently dispatchable?	Generally no, our facilities are run of the river with the majority having little to no storage. Facilities do have the ability to spill and bypass water however this is not typical of our operations and may create additional public safety impacts.
If your facility is currently not dispatchable, is there an interest in becoming dispatchable? What would be required to become dispatchable and what are the barriers (if any)?	Most facilities would be dispatchable to shut down. This would result in spill in bypass channels which may be abnormal. Cycling between turbine flow and bypass flow will result in increased public safety risks. One of our facilities may be able to generate in a daily peaking fashion however, modifications and automation to an upstream dam, public safety improvements and ecological impacts would need to be considered.
What questions or feedback do you have relating to **Design Concept #3: Tranching**	Click or tap here to enter text.
What characteristics would you consider to be defining features of your operations or facilities as it relates to potential criteria for contract payments?	kW ability, kWh production, water management at generating station location and dam structures in the watershed. The facilities have little to no ability to store water as most are embedded in river sections. Forecasting flows is challenging as conditions change frequently and drastically with weather.
What questions or feedback do you have relating to **Design Concept #4: Investment?**	Click or tap here to enter text.
Have you considered adding an on-site battery to your facility? If so, what stage of development are you in? Is there potential for Indigenous and/or community ownership?	Integrating an on-site battery to our facilities is something we have considered. There are challenges to deploying such a device. Those would be the rules regarding connection of such a device. Our facilities do not utilize the connection capacity 100% of the time. This is mainly due to lack of water. This provides an opportunity to charge the battery with a hydro

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	turbine and discharge it at various capacity or durations. It likely does not make sense to increase connection capacity of our facilities (hydro + battery) however we would size the battery equal to the connection capacity. The challenge becomes that the utility would not observe this as a parallel system but would be seen as a new generator and would mandate the connection to be at the capacity of (hydro + battery). This would also trigger gross load billing for the facility. We do have a stand alone grid connected battery in service and have the experience to deploy such a setup.
Are you aware of your sustaining capital requirements over the next 5 years?	Click or tap here to enter text.
Have you considered any upgrades or capital projects at your facility? If so, what stage of development are you in? Is there potential for Indigenous and/or community ownership?	Yes, some facilities could deploy an upgrade to increase capacity and efficiency. Additionally some facilities have aging infrastructure that need rehabilitation or replacement.
What questions or feedback do you have relating to **Design Concept #5: Contract Length**?	Financing any sort of projects on a 10 year contract will not likely be successful.
What questions or feedback do you have relating to a program review in 2026?	Click or tap here to enter text.

Small Hydro Program – Other Design Ideas

Topic	Feedback
Are there any other design ideas for the development of a Small Hydro Program that should be considered?	Payment for energy typical of existing contracts would be a preferred program.

Small Hydro Program – Challenges

Topic	Feedback
Are there challenges that you foresee in transitioning to a new contract structure? What are these challenges?	Water control and public safety implications of not running typical of existing strategy. Financing. Financial security for assets to remain in good repair.
If you expect any challenges in transitioning to a new contract structure, do you have any suggestions on how the IESO can assist in the transition or reduce any anticipated barriers?	Click or tap here to enter text.

General Comments/Feedback

Click or tap here to enter text.