

# Feedback Form

## Hydroelectric Program Development and Assessment - Small Hydro Program June 22, 2022

### Feedback Provided by:

Name: Julien Wu

Title: Director, Regulatory Affairs

Organization: Evolgen by Brookfield Renewable

Email: [REDACTED]

Date: July 14 2022

Following the June 22, 2022, engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed during the webinar. The webinar presentation and recording can be accessed from the [engagement web page](#).

**Please submit feedback to [engagement@ieso.ca](mailto:engagement@ieso.ca) by July 14, 2022.** If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

## General Comments/Feedback

Evolugen by Brookfield Renewable appreciates the opportunity to provide the following comments on both above and below 10MW facilities.

### Design Concept #1: Capacity Payments

The proposal is still too complex for small hydro operators that do not have the back-office support (e.g., settlement and accounting) required to vet and monitor the payment structure. A floor and ceiling pricing structure based on historical years would not reflect future market conditions, and could unfairly penalize asset owners if strong energy demand resulted in higher pricing, whereas lower market pricing would penalize the IESO. Having floor/ceiling caps that are adjusted with market conditions would defeat their purpose of reducing market condition's impact on revenue; not to mention that the caps' adjustment would be difficult.

We continue to support a bundled fixed price contract (including capacity, energy, ancillary, and societal benefits) with the appropriate escalation factors: this would be administratively simple and easier to audit, while keeping both the asset owner and the IESO whole and protected. What's more, the development and evolution of a reference case adds unnecessary complexity to the calculations for more of less run-of-river plants. Will the capacity calculation change month-to-month based on actuals? If so, this mechanism will be administratively heavy for small hydro operators: everything from planning overhauls to routine maintenance would become substantially more difficult. Under the current contract structure, operators are incentivized to plan work on the equipment when flows are the lowest and the least amount of MWh would be lost. In contrast, the proposed contract—more heavily weighted on capacity—could impact outage planning to the detriment of both owners and the IESO. In addition, the establishment of reference cases could create inequalities between different small hydro facilities, which could lead to skewed market signals.

Fundamentally, a pricing floor and ceiling would be difficult to forecast, difficult to price in financial models, thus making hydro facilities difficult to finance. Again, we prefer a contract for difference with a fixed price for the entire contract duration. This structure is simple, would enable project financing, and would incentivize facilities to follow price signals in the hourly market.

### Design Concept #2: Dispatchability

The IESO should consider adding a stronger premium for dispatchability. If facilities can physically operate as dispatchable assets (depending on their Water Management Plan), they would need significant capex spending to bring the equipment up to the level required. In addition, there would be longer term and additional operating costs for the operator to both bid in and operate as a dispatchable resource. In sum, both the incremental capex and opex costs required would need to be accounted for. As we stated in previous comments: introducing a similar structure to the secondary hedge in the HCI contracts would incentivize small hydro to peak, and would also incentivize resources to closely respond to market pricing signals.

### Design Concept #3: Tranching

We support the elimination of tranches. Smaller stations still have all of the same environmental and social responsibilities as larger operators, such as safety booms, signage, fish flows etc..., but have less overall MWh of generation to offset these fixed costs. We encourage the IESO to keep in mind that operators of this size need very basic, easy to read, and easy to settle contracts. Tranching would be arbitrary and would create unfairness between small hydro facilities. If "categorization" were necessary: small hydro facilities' value should be evaluated individually per their UCAP contribution based on their historical generation profiles during peak hours. Only this evidence-based structure would maintain fairness.

### Design Concept #4: Contract Length

We support 20+ years contract terms, as well as flexible and optional bridging and termination options.

### Design Concept #5: Investment

We are supportive of price adders for Indigenous, Conservation Authority and Community ownership –as long as such adders are optional and represent positive incentives only. While support from these partners, where possible, adds significant value to the small hydro industry, not all projects and financial structures can and should have a minimum community ownership stake.

We also urge the IESO to consider and create positive price adders for any and all non-electric and societal benefits that hydro facilities contribute (e.g., water management, local services such as ferries, access and maintenance for leisure purposes, as well as local employment, educational, and economic contributions...).

Generally speaking, a 20+ year contract that includes a fixed capacity price and an energy revenue hedge can provide price certainty to small hydro owners to enable maintenance and reinvestment. However, we are not supportive of ceiling and floor caps on energy revenues because they introduce uncertainty, complexity, and can distort market price signals. A contract for difference that is properly escalated with a fixed energy price, on the other hand, is a much more effective and appropriate contract structure in our view. As a general comment, we believe that facilities should be evaluated individually by their UCAP contribution based on their actual availability during peak times. In fact, all intermittent facilities (run-of-river, wind, solar) should be evaluated in the same way.

Finally, Hydro Quebec's 2022-2025 Strategic Plan anticipate adding 2,000MW of capacity to their existing hydro fleet via upgrades. We urge the IESO to keep hydro facilities in mind as it designs its future procurement processes (e.g., the Same Technology Expansions stream)