

Feedback Form

Small Hydro Program Workshop, May 19, 2022

Feedback Provided by:

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Date: June 2, 2022

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

Following the (Thursday, May 19, 2022) 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 Thursday, June 2nd. To promote transparency, feedback provided will be posted on the engagement webpage.

Small Hydro Program – Capacity Payments

	Topic	Feedback
1.1	What feedback do you have on the payment structure as it relates to a capacity payment plus an energy payment with a floor and a ceiling?	<p>It is understood that contracts require a certain level of complexity. While they are far from perfect, the existing contracts (RESOP or HCI) show examples of workable contracts that include what is required. Increasing the complexity should be justified by demonstrating that it adds value for the ratepayers or other stakeholders and if this can't be shown then simplicity should be prioritized. The explanation provided for why payments based on nameplate capacity are the core of the proposed design was that "capacity" is being valued and procured as part of market renewal. This explanation stopped short of connecting the decision to procure capacity to how it is expected to benefit stakeholders. In doing so it covered over the fact that using nameplate capacity will in fact have the exact opposite effect of what capacity procurement is intended for. In effect, it is capacity in name only and works against the IESO's goals.</p> <p>Capacity is being procured/valued in response to intermittent energy sources that supply energy based on the availability of their "fuel" sources rather than the needs of energy consumers. What distinguishes capacity from energy is that it is either able to be called on as needed (dispatchable) or has a greater tendency to be available during the times when it is determined to be more valuable/needed. It is the dependability and timing of production that matter and concepts such as ICAP or UCAP attempt to quantify this as distinct from nameplate capacity. Nameplate says nothing about WHEN that energy will be available and can range from high capacity factor facilities providing consistent output that preferentially corresponds to demand to low capacity factor facilities that only seasonally approach their nameplate and do so consistently during low demand periods. Why would compensating such facilities equally simply because they have equal nameplate capacity be considered over a clear energy rate that encourages facilities to maximize uptime and production?</p>
1.2	What feedback do you have on the assumptions for the reference case used in	<p>The reference case does not reflect our facilities and will put us at a considerable disadvantage despite the fact that our facilities better correspond to the needs of energy consumers. Our hydro stations typically have a capacity factor that is 10-20% higher on an annual basis than the</p>

	Topic	Feedback
	<p>developing the payment structure? Specifically, what feedback do have on the reference case regarding: an appropriate split between the capacity payment revenue verses the energy payment revenue; the assumed capacity factor; the energy floor price?</p>	<p>reference case and often 40% higher during the peak summer season when energy demand is highest in Ontario. The strong summer performance is balanced by no production (water drained from canal) during several months of the winter season. This program as currently designed will value the contribution of our facilities far less than that of hydro with much lower capacity factors where their strongest production is often during the spring and fall shoulder periods when demand is low. Application of a consistent nameplate payment as the primary mechanism will by definition benefit lower capacity factor facilities as both get the same rate for a vastly different contribution. In our case we often reach or exceed 90% capacity factor on a monthly basis during hot summer months of high demand and average 60-70% annually. Penalizing generation that provides the highest value energy that corresponds to demand is the exact opposite of what capacity markets are intended to achieve and shows that using nameplate capacity is counterproductive in reaching these goals.</p>
1.3	<p>What feedback to you have regarding setting the fleet wide capacity factor benchmark at 40%? (Below this capacity factor, capacity payments will be reduced)</p>	<p>We need to know if the capacity factor will be calculated on an annual, seasonal or on the basis of some other time interval. We operate on a canal giving us consistent water throughout much of the season, but we also lose all access to water when the canal is routinely drained for maintenance. On a longer scale this will be averaged out, on a short scale the impact on revenue would vary considerably depending on the time frame and how they overlap with our high and low operating seasons. The time over which the capacity factor is calculated is also relevant to timing of payments. If, for example, the time period is annual, then payment would still need to be provided to generators on a routine basis before the calculation is complete. Would the generator be paid monthly assuming no reduction then have any reduction clawed back at the end of the year once a final settlement is calculated? The threshold for reducing capacity payments will not directly impact us because our facilities typically exceed the threshold by a large margin. What is more concerning is that reference case assumed capacity factor of 50% means that any project with a higher capacity factor is penalized while those with a lower capacity factor are rewarded as both are compensated equally. Generally, the concept of rewarding low-capacity factor facilities makes no sense to us whatsoever and we hope that the proposed structure will be rejected.</p>

	Topic	Feedback
1.4	What feedback do you have regarding the energy ceiling concept and price?	It is our understanding that tying this portion of the compensation to market rates was intended to balance the desire to transition to market structures with the need to provide viable pricing to these legacy hydro facilities. What is telling is that both the floor and ceiling price proposed are both lower than what customers typically pay for electricity at any time. This shows the dramatic disconnect between the market and the customer demand that really matters. The need for a floor reflects the lack of confidence that market renewal will result in market prices that reflect customer willingness to pay. The ceiling is essential to recover the adjustments made due to the floor but this further limits the incentive to respond to market signals. As these price rails squeeze down the market price closer to what is effectively a fixed energy price, we would again encourage the IESO to simply drop this complexity and adopt an energy price as it is both simple and has been proven effective.
1.5	What feedback do you have regarding an appropriate percentage of the capacity factor for which an escalation factor (Ontario all-items CPI) should apply? What is the justification for the percentage you are recommending?	In previous contracts the justification provided by the IESO for only partial indexing of contract prices to inflation was based upon the fact that the facilities were highly capital intensive. The percentages were intended to correspond to the fraction of costs associated with operations that will be driven up with inflation while only the initial capital costs that are paid up front and therefore not influenced by inflation were excluded. The contracts now being discussed are intended to allow a viable business case for existing facilities where costs are entirely operating costs and ongoing capital investments throughout the operating life. All of these costs are tied to inflation and therefore the entire price structure should be tied to CPI or a shortfall is ensured. Partial indexing may make sense for procurement of new builds, expansions or similar where again the costs for front end loaded capital investments can be carved out. When dealing with operations and ongoing costs, inflation must be accounted for either through escalation or setting an artificially high starting rate that will average out over the program. If the desire is to set the rate at a level that just covers viability, the full rate must then be escalated.

Small Hydro Program – Dispatchability

	Topic	Feedback
2.1	<p>What feedback do you have on the approach to enhance payment for dispatchable facilities (increase capacity payment by X%, increase ceiling price or revenue share above ceiling price)? In your response, please note if you are a dispatchable facility / intent to become one as this design feature may only impact a very small portion of facilities.</p>	<p>From the information provided we calculate that our projects, despite producing at a very high capacity factor during the summer months when the need is the greatest, would be compensated somewhere between \$69 and \$94/MWh equivalent under this program (assuming \$20 floor and \$45 ceiling) compared to the current HCI of nearly \$90/MWh. Market prices in recent years would suggest the lower end of that range is far more likely resulting in an approximately \$20/MWh equivalent shortfall compared to the existing HCI program which many consider to be threshold for viability.</p> <p>Attempting to reward dispatchability through increased capacity payment is the least appealing option as it is unrelated to market needs/demand. Increasing the ceiling price or revenue sharing above the ceiling price would be far more appropriate as it enhances the incentive for the flexible generator to respond to demand. Unfortunately, with energy only providing 30% of revenue increases in ceiling price and the actual frequency of high price periods would have to be significant to be worth acting upon since energy is limited to such a small portion of revenue overall.</p> <p>For our facilities to become dispatchable would require coordination with entities upstream. If a reasonable program were proposed it is likely a deal could be struck and we could potentially make these facilities very flexible. The program as proposed appears unlikely to provide any path where pursuing such changes would be worthwhile.</p>

Small Hydro Program – Tranching

	Topic	Feedback
3.1	<p>What feedback do you have regarding the recognition of economies of scale by providing an adjustment to the capacity payment of facilities under 1MW? What</p>	<p>Our facilities are larger than 1MW so this would not apply to us. Overall, the need for additional support for very small facilities is recognized and appropriate.</p>

	Topic	Feedback
	feedback do you have regarding an appropriate adder (in terms of a % of the capacity payment)?	

Small Hydro Program – Contract Length

	Topic	Feedback
4.1	What feedback do you have regarding the option to terminate existing contracts and sign into the program at any time, with all contracts ending 20 years from program opening (ie. May 2043), regardless of when a contract is signed?	We have no issue with the contract length. We will not be signing up for this program initially as we currently have a contract that accounts for the initial investment of facilities (RESOP). We recognize this rate was a premium, but our financial model requires that we complete this contract before stepping down to a rate structured to reflect only ongoing operations. If we were able to sign up and lock in the new program while still finishing out our existing contract this would be preferable as it would provide considerable certainty and allow us to plan future investment in the operations and potential expansion of these facilities.

Small Hydro Program – Community, Conservation Authority & Indigenous Ownership

	Topic	Feedback
5.1	What feedback do you have on a minimum Indigenous, Conservation Authority or Community ownership stake	Click or tap here to enter text.

	Topic	Feedback
	to qualify for an enhanced payment?	
5.2	What feedback do you have on the maximum value of an adder (in the case of 100% ownership by an Indigenous Community, Community or Conservation Authority)?	

General Comments/Feedback

	Topic	Feedback
6.1	Please provide any additional comments or feedback that would assist in the design, development and implementation of a Small Hydro Program	As a real-world example of how challenging a complex settlement structure like what is proposed will be, here is a recent account of an interaction with an LDC. Over the past three months we have been attempting to get the rates for two of our facilities corrected with the local utility for a simple fixed price RESOP contract. They mistakenly adjusted the rate when replacing our meters as part of routine maintenance as the meter service provider. The settlement department knows very little about RESOP contracts and relies on software left by people who preceded them to keep track of these rates. Weeks of back and forth to get a simple fixed rate contract corrected makes it seem very unlikely that managing this new structure will be practical. The proposed structure would require a several part settlement process involving capacity factor calculations, rate reductions (potentially requiring claw backs), hourly variable prices with max min rails customized based on dispatchability, scale, and ownership structure of each project. LDCs will struggle to accurately implement such a system, especially since it will almost certainly be a one off for this small group of projects. Since it provides no benefit we ask that the IESO not proceed with such a complex structure.