



July 28, 2016

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SUBJECT: Input to FIT 5.0 Draft Program Rules and Price Review

Thank you for the opportunity to provide input and advice to the IESO's development of the program rules for the next Feed in Tariff (FIT) procurement and the annual review of technology prices. At the outset I believe that, particularly given that there are no further FIT procurements planned at this time, the IESO should deliberately design the program to more directly contribute to the achievement of the government's overarching policy objective of a diversity of renewable energy supply, as articulated by the Long Term Energy Plan. With respect to waterpower specifically, our estimation is that the province is approximately 250 MW from meeting its target of 9,300 MW of installed capacity by 2025. To help achieve this objective, both the FIT and the LRP programs (and additional procurements) must incorporate the unique attributes and regulatory processes to increase the participation of waterpower projects.

1. Program Rules

Our key recommendations in this regard relate to the mechanism by which limited connection capacity is assigned. Specifically, the OWA recommends that if there is competition between different renewable generating technologies for the same connection to transmission or distribution circuits, capacity factor should be utilized as a benchmark. This approach also benefits the ratepayer by ensuring that the existing transmission/distribution infrastructure is economically optimized by connecting renewable energy sources which deliver the most energy over time.

I have attached for your consideration our detailed recommendations with rationale. They are summarized below:

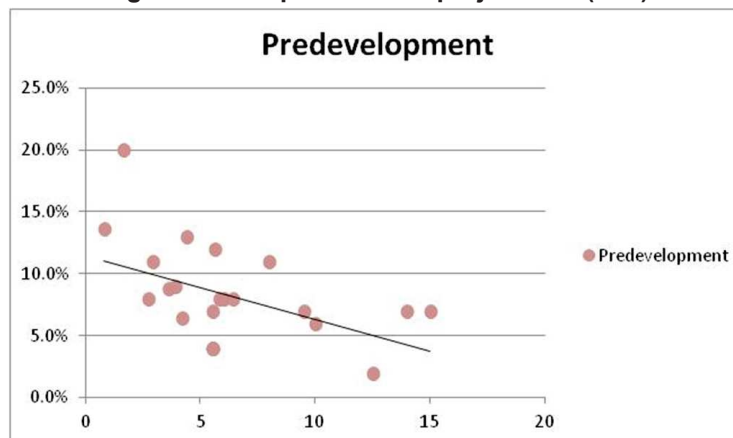
- The definition of "Small FIT Facility" for waterpower should simply be "a facility with a nameplate capacity of 500 kW or less".
- Waterpower facilities should also be permitted to aggregate co-located projects up to 2MW.

- The term "Applicant of Record" should be removed and that the "land ownership" evidence requirements for waterpower should be designed for waterpower.
- The process with respect to the submission of a Crown land Site Report and MNRF confirmation should be improved such that the proponent is informed of MNRF's determination prior to Application submission.
- All eligible projects should be evaluated at the same time based on priority points with respect to connection capacity availability.
- Technology capacity factor should be incorporated into the prioritization methodology
- The TAT/DAT information on available capacity should be accurate and transparent throughout the application process.
- The relative percentage price reduction for priority points should remain the same as in FIT 4.0.
- Conservation Authorities should be included in the definition of Public Sector Entity.

2. Price Review

As noted on our previous submission of August, 2015, there have been relatively few waterpower projects procured through the current FIT program and, while I am encouraged with the improvement in this regard through FIT 4.0, much more data is required to support a base price adjustment at this time. Based on some data collected recently on larger projects, I can confirm that input costs in general for waterpower continue to increase and that, as illustrated in the figure below, regulatory approvals for smaller projects represent a disproportionate cost. Given this reality I am also recommending that, consistent with other technologies in the program, a separate tranche be established for projects of 250kW and below in capacity. The difference for on-farm biogas in this regard is approximately 20%.

Figure 1 - % Input costs vs. project size (MW)



The IESO's questionnaire raises the potential linkage between a price adjustment and the results of the use of price reduction as a means of obtaining priority points. In my view, these concepts are entirely unrelated. The base price is established to represent the average input costs including financing to generate a defined rate of return. Conversely, the bid down percentage is a representation of the proponent's willingness to assume risk considerable of

the requirement to have at least one priority point and of the significant competition for limited connection capacity based on points. The IESO should continue to use input cost data to inform base price, as available, separate from the application of a bid down premised on risk tolerance.

Finally, it is important to note that the vast majority of FIT-sized waterpower projects will take place at existing infrastructure, most of which is owned by some level of government (e.g. MNR, Conservation Authorities, Municipalities). As such, and unique to waterpower, the investment being made in renewable energy will often be accompanied by a reduction in cost to government with respect to long term maintenance and an increase in the quality of the structure with respect to public safety. These ancillary benefits are not factored in to the derivation of FIT pricing but should certainly be recognized as additional value.

In summary, it is recommended that:

- The base price for waterpower under FIT 5.0 remain at 24.6 cents/kWh
- An additional tranche for waterpower 250kW and below be added at a rate of 29.5 cents per kWh (20% differentiation).

Again, thank you for the opportunity to provide input and advice. I would be pleased to discuss these recommendations directly with you at your convenience.

Sincerely;



Paul Norris
President
Ontario Waterpower Association

Copy: OWA FIT Task Team
OWA Board of Directors
Ministry of Energy
Canadian Biogas Association

Feedback Form: Draft FIT 5 Rules, Contract, Standard Definitions and Prescribed Forms

Feedback on the draft documents must be sent to FIT@ieso.ca by **July 28, 2016**. In accordance with IESO's engagement principles, all responses will be made available on the IESO's website.

Please identify the section number, definition or appendix of the draft document that you are providing feedback on.

Submitter Information

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Section

Feedback

<p>2.1 (b) Program Rules and Standard Definitions</p>	<p>It is recommended that the definition of "Small FIT Facility" for waterpower simply be a facility with a nameplate capacity of 500 kW or less. The eligibility requirement that a project be a "Small FIT Facility" leads to the definition ; "Small FIT Facility means a "capacity allocation exempt small embedded generation facility" as defined in the Distribution System Code" The DSC provides that a.."capacity allocation exempt small embedded generation facility" means an embedded generation facility which is not a micro-embedded generation facility and which has a name-plate rated capacity of 250 kW or less in the case of a facility connected to a less than 15 kV line and 500 kW or less in the case of a facility connected to a 15 kV or greater line". This convoluted connection between contract eligibility and the size of the facility that may be connected to the distribution system for the purposes of a streamlined connection process has no technical basis and, given that evaluation process for projects selects those to be connected based on a points/set aside system, the linkage to the DSC is moot. The consequences of this approach for small hydro is that proponents are forced to underutilize the available resource to meet the definition for eligibility. Unlike modular technologies like solar, waterpower "is where it is".</p>
<p>2.1.(i) and Standard Definitions</p>	<p>It is recommended that waterpower facilities also be permitted to aggregate co-located projects up to 2MW. Section 2.1. (i) provides that "the aggregate proposed Contract Capacities of all Projects and any Renewable Generating Facilities that use the same Renewable Fuel, that are under contract with the IESO or the Ontario Electricity Financial Corporation, and that are located, or proposed to be located, on a Deemed Single Property may not exceed 2 MW", yet subsection (j) (vi) restricts aggregation "for a Project that is not a Rooftop Solar Project the aggregate proposed Contract Capacities of: (A) the Project; and (B) the Other Facility (and any further Other Facility) that is a Project whose Application Form was submitted during the same Application Period as that of the Application, is less than or equal to 500 kW. This is fundamentally inequitable to other projects, including waterpower, which could meet the requirements with an improvement to the concept of "Deemed Single Property" that includes the very real scenario of more than one "facility" utilizing the same water management infrastructure.</p>

<p>3.6 Application Materials and Requirements for Projects on Provincial Crown Lands</p>	<p>It is recommended that the term "Applicant of Record" be removed and that the "land ownership" evidence requirements for waterpower be designed for waterpower. MNRF revised Crown Land Access policy to "align" with the IESO's procurements by making it a requirement that a proponent have a contract PRIOR to Crown land access, eliminating the concept of "Applicant of Record". As evidenced in FIT 4.0 there were significant challenges for waterpower project proponents with projects potentially located on lands with multiple ownerships (province, riparian, municipalities etc), particularly in southern Ontario.. Given that Crown land site access is not possible until after receiving a contract and that waterpower facilities are designed site specifically as informed by the EA and approvals processes, it is a challenge to determine precisely which lands may be occupied by which components of the facility. This core program design issue must be addressed for FIT 5.0</p>
<p>3.6 (a) Crown Land Site Report</p>	<p>It is recommended that the process with respect to the submission of a Crown land Site Report and MNRF confirmation be improved such that the proponent is informed of MNRF's determination prior to Application submission. There were significant and systematic issues with respect to the requirement and practical application of the "Crown Land Site Report" that had to be been submitted to the MNRF prior to the submission of the hard copy Application materials. At this early predevelopment stage, proponents often assume that part of their project may occupy provincial Crown lands, but with the MNRF approach of "no contract, no contact", this assumption is next to impossible to verify. In some instances, legal advice recommended the use of the nearest PIN as a property identifier, due to the fact that waterpower "sites" (i.e. dams) have no PIN. This was an example of a program induced error in some circumstances.</p>
<p>SECTION 4 – EVALUATION PROCESS, Section 5</p>	<p>It is recommended that all eligible projects be evaluated at the same time based on points with respect to connection capacity availability. This Section stipulates that "In stage 4 Applications in respect of CCSA Eligible Projects will, in respect of an applicable Contract Capacity Set-Aside, in order of rank (as determined in stage 3), be assessed under the TAT and the DAT, as applicable.", providing that CCSA projects are provided first access to connection capacity rather than using the ranking system that includes, among other considerations, price. The concept of CCSA is to provide for "Contract Capacity" set asides, not "Connection Capacity" set asides. All prjects should be assesed on the same basis (points) with respect to connection capacity.</p>
<p>5.1 Prioritization</p>	<p>It is recommended that technology capacity factor be incorporated into the prioritization methodology. At present, the allocation of capacity based on the priority points table ignores the relative efficiency of the use of the distribution/transmission infrastructure by the project. Capacity is allocated at the maximum nameplate regardless of the electricity generated. The IESO (OPA) previously incorporated some consideration of differing attributes of technology through the assignment of a "system benefit" point within the priority points table. With this removed for FIT 4.0, there is no mechanism to incorporate energy value in the comparative analysis. To address this, a capacity factor criterion should be used in the assessment of alternative projects competing for the same connection capacity.</p>
<p>6.2/6.3 (TAT/DAT)</p>	<p>The TAT/DAT information on available capacity should be accurate and transparent throughout the application process. In a number of instances proponents made significant investments in predevelopment premised on information indicating that connection capacity was available, only to be informed through the evaluation process that capacity was not. The IESO and Distributors should ensure that the data provided is as accurate and up to date as ;possible and proponents should be advised of changes in advance of the submission of an Application.</p>

8.1 Determination of Price	It is recommended that relative percentage price reduction for priority points remain the same as in FIT 4.0. The IESO introduced for the first time the concept of price reduction willingness as a competitive tool in FIT 4.0. According to published information, there appears to have been reasonable use of this means of attaining priority points, particularly by the solar industry. This should not be confused with the IESO's ongoing efforts to review and update base FIT prices and, given the uptake of the concept, there is no reason to make adjustments to the percentages at this point.
Standard Definitions 316	It is recommended that Conservation Authority be included in the definition of Public Sector Entity ("means a Person that is a School, College, University, Hospital, Long-Term Care Home, Public Transit Service Entity, or Metrolinx.). CA's are through legislation municipally constructed entities and own significant infrastructure (i.e. dams) that could support waterpower projects. CA's should be afforded the same treatment as other such entities.