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November 5, 2009

Kirsten Walli, Board Secretary, Ontario Energy Board 2300 Yonge St. 27<sup>th</sup> Floor Toronto, ON. M4P 1E4

### RE: Submission for EB-2009-0326

Kirsten Walli;

Please accept our submission for due consideration by the Board and stakeholders in the matters and issues under Proceeding EB-2009-0326.

I trust that our submission with file name "ALASI\_SUB\_EB2009-0326\_11052009" is in a form and format that meets with your approval.

We are grateful to have the opportunity to participate in this proceeding as its outcome and the determinations there from will have a significant impact on the future of electricity in Ontario.

We have prepared this submission in the hope that we may contribute to a positive, fair, and, reasonable resolution of not only the immediate matters under this proceeding but additionally to inspire and contribute to a fair and reasonable approach and resolution to similar future matters.

I continue to be appreciative of the Board's success at balancing the interests of various stakeholders without compromising customer choice and system reliability; I once again say to the Board - Bravo!

I am as always happy to clarify any issues and or expand on any concepts introduced in our submission.

Yours truly;

Gregory M. Lang Principal, ALASI Inc.

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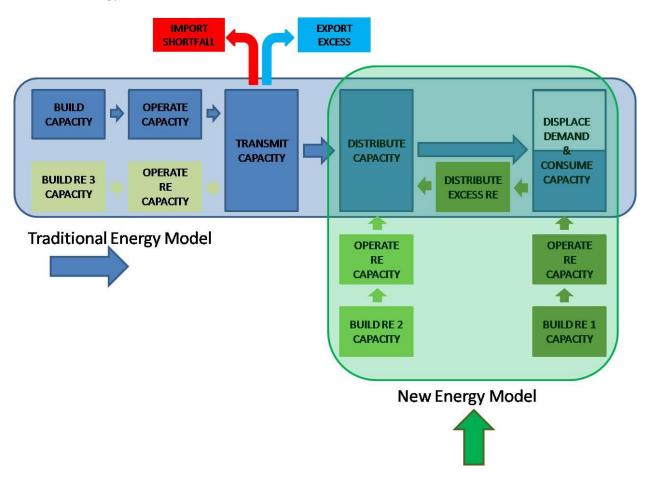
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### **Executive Summary**

- We recommend that the service classification in Appendix D of EB-2009-0326 be modified to; "micro Embedded Renewable Energy Generation Facilities - FIT" (micro- ERG-FIT), and re-defined to include facilities of 10 KW or less rated capacity as well as embedded generation facilities whose associated load usage results in low or no grid impact regardless of installed rated system capacity.
- No cost elements should be recovered directly from Micro Embedded Renewable Energy Generation Facilities-FIT.
- No consideration should be given to connection configurations in determining cost elements for any specific customer class, but, connection configurations may provide the basis for determination of the applicable customer classes and or sub-classes.
- No consideration should be given to the ownership structure or business relationships in determining cost elements within any appropriate Customer Class.
- ➤ The approved rate should be a uniform rate for all distributors across Ontario for the Customer Class of MicroFIT Embedded Renewable Energy Generation Facilities as defined in and by this submission.
- Costs should be recovered through a Province-wide Rate increase for Micro Embedded Renewable Energy Generation Facilities under FIT and implemented as a new billing item called the Renewable Energy Recovery Fee.
- The effective date for the new rates should be retro-active to at least 1 year prior to the launch of the Renewable Energy Standard Offer Program, or such other date as deemed to be the earliest point in time where a customer may have known or reasonably expected that the Government of Ontario would introduce Renewable Energy Feed-In Incentives.

### Introduction

Our approach in the examination of the issues in proceeding EB-2009-0326 includes our recognition and acceptance of the fact that the current traditional centralized generation model and supporting regulations and settlement mechanisms do not adapt themselves easily to the "New", albeit old, distributed and embedded generation model whether these new facilities employ renewable energy or traditional energy sources.



We believe that our recommendations are appropriately considerate of the existing framework and serve the interests of all stakeholders while remaining focused on the potential economic, environmental, and, social value available to ratepayers and tax payers into the future.

### **Service Classification**;

The service classification shown in Appendix D of EB-2009-0326 is not appropriate.

Our analysis of the Renewable Energy Industry leads us to conclude that in the near future a greater degree of distinction will be required of generator classes and connection types in order to appropriately regulate, value, and if applicable, compensate various stakeholders in the areas of; connections, metering, settlement, participation, and, related distribution and transmission service investment requirements.

While the scope of Procedural Order EB-2009-0326 is

"to determine a just and reasonable rate to be charged by an electricity distributor for the recovery of costs associated with an embedded generator having a name plate capacity of 10KW or less (embedded micro generator) that meets the eligibility requirements of the Ontario Power Authority's (OPA) microFIT program",

Appropriate due consideration of other generator classes is necessary in order to fairly and reasonably conclude these determinations. The determination of what is fair and reasonable must necessarily include some consideration of what is not. While we did not respond or comment on the Draft Issues List given that we believed the issues identified were adequate and sufficient, the subsequent removal of Issue 2 - *Treatment of non-microFIT applications* does not meet with our satisfaction. And while we appreciate that Issue 2 - *Treatment of non-microFIT applications* may be outside of the direct scope of this determination, it does provide a requisite context and indirect guidance in reaching a fair and reasonable conclusion to this proceeding. In consideration of this, we will address Issue 2 - *Treatment of non-microFIT applications* and expect that the OEB and all parties hereto similarly give due consideration to this Issue, if not as a specific and Direct Issue under this proceeding then, at a minimum, as an Indirect issue and or basis for determination of the remaining issues in this proceeding.

We do not proscribe that the OEB extend or modify its current examination under this procedure, but do recommend that the issues addressed herein, as argument or evidence, additionally be the basis for separate proceedings for the further clarification and determination of other classes and sub-classes, and include the subsequent determination of appropriately fair and reasonable rates for each of those classes and sub-classes pursuant to both OPA related and other generation facilities in Ontario.

We propose that the service classification of the entities related to and included in the Direct Scope of these proceedings, EB-2009-0326, be named and defined as;

### "micro Embedded Renewable Energy Generation Facilities - FIT" (micro- ERG-FIT)

Any generation facility producing electricity from a Renewable Source connected to the IESO controlled transmission or distribution system that is under contract with the OPA to sell the output pursuant to the FIT Program and that meets any one of the following criteria:

- 1. The generation facility has an installed Rated Capacity of 10 KW or less.
- 2. The connection point of the generation facility is behind the load meter of an Associated Load Customer and the generation facility output is deemed to have a Negligible Impact on the Grid relative to the Associated Load Customers' consumption behaviour and patterns as defined by the Grid Impact Schedule.
- 3. The connection point of the generation facility is located, connected, and, configured in such a manner in relation to an Associated Load Customer as to result in a Negligible Impact on the Grid relative to the Associated Load Customers' consumption behaviour and patterns as defined by the Grid Impact Schedule, which may be due to a device or mechanism that limits or prevents any such impact. (Under this condition, the OPA FIT payments would reflect only total kWh produced AND consumed)

We propose that this class be defined pursuant to, or at a minimum in consideration of, all of the additional proposed definitions in **Appendix A: Proposed Definitions**, attached hereto, including, but not limited to; Embedded Renewable Energy Generation Facilities-FIT, Renewable Energy Generation Facilities-FIT, Associated Load, and, Grid Impact Schedule.

For clarity, if possible; "micro Embedded Renewable Energy Generation Facilities-FIT" would therefore be a sub-class of "Embedded Renewable Energy Generation Facilities-FIT", which in turn would be a sub-class of "Embedded Renewable Energy Generation Facilities", which in turn would be a sub-class of "Embedded Generation Facilities".

Embedded Generation Facilities would therefore be a distinct Class of customer as against a Class of other Generation facilities, and both embedded and non-embedded facilities could be either Renewable Energy facilities or non-renewable energy facilities.

Our recommendation is made in consideration of Directives and Statements from MEI, OPA, and other findings and determinations previously made by the OEB, in addition to the results of our analysis of other feed-in and similar programs in other jurisdictions.

We have identified three (3) major Customer Class Categories in the Renewable Energy segment:

## 1. Micro Embedded Renewable Energy Generators; (micro-ERG)

Generators with an installed capacity of 10 KW or less

### 2. Embedded Renewable Energy Generators; (ERG)

Generators using a renewable energy source connected to an Associated Load customer

### 3. Renewable Energy Generators; (REG)

Large Scale generators using a Renewable source and connected to the Transmission System

These Customer Class categories are in consideration of their non-renewable energy brethren; Generators (G), Embedded Generators (EG) and micro Embedded Generators (micro-EG).

In addition, we believe that the additional designation of a facility as a FIT participant should be a sub-category designation. This approach provides for long term flexibility in adapting to new or changing programs and incentives as well as establishing the framework for other distributed or embedded non-renewable energy customer classes.

Our conclusions provide opportunity to ensure that appropriate costs are recovered relative to the project investment, type, and connection point, while simultaneously maximizing the benefit and success of; the OPA's FIT Program, and, Renewable Energy related employment and infrastructure investment in Ontario. The delineation of Classes within the sphere of new generation facilities in Ontario must simultaneously serve the financial obligations of all stakeholders while also providing a clear and measurable investment choice in order to inspire and promote generation investment and connections that deliver maximum value to Ontario on many fronts simultaneously, and therefore must include an indirect consideration of value, as yet to be specifically quantified, from the related Negawatts or Negawatt Value, generated by the various customer classes under both this proceeding and future related proceedings for each Customer Class.

The following Table of Impact represents the relative impact of system capacity and connection point demonstrating at a high level the basis of our recommended definition above for the inclusion of larger embedded generation facilities due to their low impact on the Grid.

Table of IMPACT		CONNECTION POINT			
		Transmission	Distribution	Embedded	
SYSTEM CAPACITY	Macro RE Generator	High	High	Moderate	
	Mecro RE Generator	High	Moderate	Low	
	Micro RE Generator	N/A	Low	Low	

### Cost Elements to be Recovered

In consideration of our proposed definitions and Customer Classes, we find that the same cost elements are applicable to all microFIT Embedded Renewable Energy Generators, and further expect that each proposed Customer Class or sub-class will share and be defined by a distinct set of applicable costs and values (negative costs or Negawatt Value), which will additionally provide the basis of determination for the cost elements to be recovered within each Customer Class.

# No cost elements should be recovered directly from MicroFIT Embedded Renewable Energy Generation Facilities.

It is our intention and view that the cost elements and related value elements of each generation facility type be defined and grouped pursuant to their specific and unique costs and values.

Our approach and methodology is intended to provide the framework from which the OEB may further refine and define the various customer classes and sub-classes in relation to embedded generation facilities and generation facilities, be they; micro or otherwise, or, FIT contracted or otherwise. We have included in our deliberations and conclusions consideration of prior OEB determinations, Government directives, and prior technical findings.

We have concluded that in order to determine a fair and reasonable rate for each customer class, both directly under the purpose of this proceeding and in subsequent related proceedings for other customer classes and sub-classes, that a single equation and or system of qualifiers be developed to identify, quantify, and subsequently categorize each Customer Class by its related cost elements that fall into one of three distinct cost buckets;

- 1. Fixed or Infrastructure Investments,
- 2. Variable or Operation Costs, and,
- 3. Incremental or Program Participation Costs.

Our conclusion that no cost elements should be recovered directly from MicroFIT Embedded Renewable Energy Generation Facilities is made in consideration of;

- 1. The Ministry's stated intentions and Directives regarding cost recovery for the GEA FIT Program through a province-wide rate increase,
- The Governments goals in relation to the creation and development of a robust Renewable Energy Industry,
- 3. The relative impact and NegaWatt value of Micro Embedded Generation Facilities,
- 4. The Embedded Generators payment of non-commodity charges for electricity that has been generated and consumed by the Associated Load Customer but where such non-commodity charges are collected by the Distribution Company without their related expense being incurred,
- 5. The detrimental impact on potential investments in the smallest Micro embedded generation facilities, where any additional costs or fees will make the investment economically prohibitive,
- 6. The due diligence performed by the OPA in establishing FIT Schedules that included consideration of promoting investments in Renewable Energy, but precluded consideration of any connection charges or ongoing monthly fees, as these are currently too variable across the

- province, and, their final determination is in fact the matter currently before the OEB under this proceeding,
- 7. Creating a fair, reasonable, and, equally accessible Program and potential benefit for all Ontarians,
- 8. The items and activities that may give cause to the incremental costs associated with a MicroFIT Embedded Renewable Energy generation facility,
- 9. Previous OEB determinations and technical conclusions on the connection of generation facilities under the Net metering Program,
- A holistic approach and evaluation of the benefits and costs associated with the promotion of greater investment in Distributed Embedded Renewable Energy, including Negawatts and Full Life Cycle Costs,
- 11. Potential Stranded Assets from the ratepayers perspective, and,
- 12. The Smart Meter program.

We have concluded that the Incremental Costs of Participation in the GEA FIT Program for micro Embedded Renewable Energy Generation Facilities includes; connection costs, metering, account reading activities, and settlement activities.

No consideration should be given to connection configurations in determining cost elements for any specific customer class, but, connection configurations may provide the basis for determination of the applicable customer classes and or sub-classes.

The matters under consideration in this proceeding, Final Issues List 2.a&b, specifically delineates between projects by their connection configuration, directly connected or indirectly connected.

Pursuant to our recommendation that the definition and delineation of customer class be determined by their relative impact, costs, and, value, we conclude that this distinction is redundant and irrelevant.

The connection configuration does not support or contribute to the successful conclusion of these or subsequent proceedings, in that this consideration alone does not define and capture; potential costs, infrastructure investments that may be required, risks, or, potential benefit and value.

To wit; an indirectly connected facility whose generation output far exceeds the associated load consumption may give rise to additional costs and infrastructure investment requirements, while a directly connected facility whose connection point in relation to an associated or nearby load customer may result in no additional costs or infrastructure investments.

The rated capacity threshold provides a simplified method for promoting investment in renewable technology, and while the Micro threshold is currently 10 KW, we have concluded that this threshold is likely to be increased in future pursuant to other OEB determinations, as the result of Grid infrastructure investments and improvements over time, and, due to the decentralization and repurposing of the Grid in a manner more appropriate to the efficient generation and delivery of electricity to customers in Ontario in the future.

Our proposed definitions and subsequent distinction of various customer classes provides that the Micro Rated Capacity threshold would apply to Embedded Generators regardless of connection configuration but instead as the result of due consideration of the potential costs and or infrastructure investment requirements as outlined herein.

We appreciate that while the OPA has created contract customer categories for the Green Energy Act Feed-In-Tariff Program as the result of their due diligence to date, we further observe that they continue to define and redefine the Rules and definitions that will apply thereto.

We believe that it is the responsibility of the OEB to define and establish customer classes that will enable it to continue to provide a secure and functional regulatory and settlement structure for customers and stakeholders in Ontario. While the OPA's distinctions among Program Contract Customer Types may be appropriate to their purposes, research, and analysis to date, it does not necessitate that the OEB employ those Contract Types as the basis or starting point for their new Customer Class determinations under this and subsequent related proceedings, but rather, the OEB should ensure that fair and reasonable mechanisms are in place that may additionally be used for the connection and settlement of any existing and potential future Contract Types under the Green Energy Act FIT Program or any other Programs that may be enacted from time to time.

No consideration should be given to the ownership structure or business relationships in determining cost elements within any appropriate Customer Class.

The matters under consideration in this proceeding, Final Issues List 2.c, has specifically delineated between projects by the potential ownership structure in relation to the project location ownership.

While our overall approach and resulting delineation of customer classes could additionally be applied to ownership models and their related costs or value that may result for example from aggregate project ownership, we have concluded that such costs and potential value are; outside the scope of these proceedings, and, effectively, though not quantitatively, equivalent between the project owner and the Distribution or Transmission Company.

Any potential additional benefits or additional liabilities that may accrue to a project owner by way of organisational structure, ownership model, or other business device, should accrue as a benefit to, and or remain a liability of, the project owner. Reasonable business practices will ensure that projects will be developed by owners in a manner that maximizes the benefit and minimizes the liabilities to the owner or investor.

Any benefit or savings that may arise and accrue to a Distribution or Transmission Company resulting from interactions with a project owner due to the ownership model or other business device, should accrue to the Distribution or Transmission Company in addition to any other determinations under these proceedings.

These proceedings and this issue in particular are specifically intended to address any liabilities or costs that may be incurred by a Distribution or Transmission Company in the connection and management of a generation facility. While we are optimistic that the parties hereto will identify and address every possible cost related to each Customer Class, we do recommend that prudence additionally provide for a "catch-all" determination that while any unidentified benefit will and should accrue to the related Distribution or Transmission Company, the Project Owner shall remain liable for all unidentified or unspecified costs that may arise, and that the identification of any new benefits or costs will subsequently be examined and included within the appropriate Customer Class in conjunction with a fair and reasonable adjustment to the costs and settlement mechanisms thereto.

While we do not propose to address which specific accounts or components from the USoA should be included in the development of rates for each customer Class, our approach and intention in making this submission includes an implied functionalization or grouping, as appropriate, of all costs and benefits related to Renewable Energy and Embedded Generation Facilities in Ontario in order to facilitate transparent and simple reporting and rate calculations. We believe that that OEB and other appropriate Stakeholders should examine and resolve this matter under a separate proceeding.

### **Rate Design**

The approved rate should be a uniform rate for all distributors across Ontario for the Customer Class of MicroFIT Embedded Renewable Energy Generation Facilities as defined in and by this submission.

Costs for the Customer Class MicroFIT Embedded Renewable Energy Generation Facilities should be recovered through a Province-wide rate increase, and specifically through the introduction and addition of a Non-Commodity Charge item called the "Renewable Energy Recovery Fee" (RERF).

We recommend the RERF as a single line item in order to;

- Provide near real time information to consumers, governments, and regulatory agencies,
- Quantify Program Costs and Related Value from Renewable Energy in a timely and transparent manner,
- Build awareness and promote participation in the Program,
- Provide a dynamic Cost Recovery mechanism to mitigate the financial risks of the Programs potential unforeseen success, and,
- Provide a simple metric and single source management tool for Program improvements and adjustments.

While the addition of and calculation formula for, the RERF is beyond the immediate scope of these proceedings, some additional commentary on its inclusion and calculation is warranted in order to appropriately frame the context of both our approach to this matter and recommendations arising there from.

Our experience and knowledge in Renewable Energy and supporting programs indicates that a direct correlation between generation output, cost, and, resulting value, provides the maximum benefit to the parties and jurisdiction in question.

An independent billing line item provides the greatest flexibility for adjustment as participation increases and therefore program costs increase, thereby minimizing any cost recovery risks that may otherwise be associated with the FIT or other future programs as well as providing a specific and measurable management tool in guiding program expansion or contraction decisions.

The "New" line item will also contribute to increased awareness and participation in investments in Renewable Energy in Ontario, and although schools, institutions, NGO's, zero-based-budget organisations, and, low or fixed income ratepayers may not have immediate facility available to make these investments, a "one-rate-for-all" approach will contribute significantly to their participation through third party investors and result in annual net benefits or electricity savings to these ratepayers.

In addition to inspiring investment, our proposed definition of MicroFIT Embedded Renewable Energy Generation Facilities also considers and resolves participation and investment issues for a variety of other ratepayer groups, such as community purchase plans, condominiums, co-ops, social housing, and the like, by providing for their inclusion in this Customer Class through consideration of the net impact of their facility rather than simply the installed rated capacity.

Costs should be recovered through a Fixed Charge, a Volumetric Rate, and, a Province-wide Rate increase where each cost recovery components is applicable only to one Customer Class.

The cost recovery mechanism for Micro Embedded Renewable Energy Generation Facilities under FIT would include only the Province-wide rate increases.

The overall approach to rate design that we propose is inherent in our proposed delineation of customer classes as detailed herein. Pursuant to the appropriate consideration of cost causation, impact, and benefit, we conclude that the overall rate design should include 3 components; a fixed charge, a volumetric rate, and, a Participation based Province-wide Rate Increase.

		Cost Recovery Mechanism		
		Fixed Charge	Volumetric Rate	RE Recovery Fee
Customer Class	RE Generator	X		
	Embedded RE Generator		X	
	Micro Embedded RE Generator			X

The Fixed Charge component for all Customer Classes should be defined and determined by the fixed direct costs and required infrastructure investments necessary to facilitate and allow a generation facility, renewable or non-renewable, to safely connect to the Grid. Fixed Charges should be recovered from the Project owner/investor as a Connection Fee.

The Volumetric Rate for all customer classes should be defined and determined by the costs associated with the actual impact of Feed-in of electricity from a non-micro generation facility onto the Grid, where such costs have not been recovered under any fixed charge or other recovery mechanism. Volumetric Rate charges would typically be employed for Embedded Generation facilities where the probability of Grid Impact is moderate or low and charged only against the actual volume of kWh's subsequently fed onto the grid. Volumetric Rate Charges should be recovered from the FIT contractee or project owner/investor through billing and settlement mechanisms with the Associated Load Customer.

The Province-wide Participation Rate should be defined and determined by the incremental costs directly associated with participation in the FIT Program including; connections to the Grid, meters, meter reading activities, account management activities, and settlement activities. The Participation rate should be recovered through the proposed Renewable Energy Recovery Fee.

It is our intention and recommendation that a combination fixed and variable cost recovery formula be developed in conjunction with the Province-wide FIT participation cost recovery fee; RERF, and that the resulting cost that may be directly incurred by any specific customer in a Customer Class may be a unique total relative to other customers in the same class.

Flowing from this model as it would apply to MicroFIT Embedded Renewable Energy Generation Facilities, the resulting Rates for this Customer Class are; Fixed Costs \$0.00, Volumetric Rate \$0.00, and, RERF \$ TBD.

Our approach and conclusions for MicroFIT Embedded Renewable Energy Generation Facilities costs hinge on the distinction between incremental costs that arise directly from contract participation in the FIT Program and the existing alternatives for this customer class as a generator under other programs or no program participation at all.

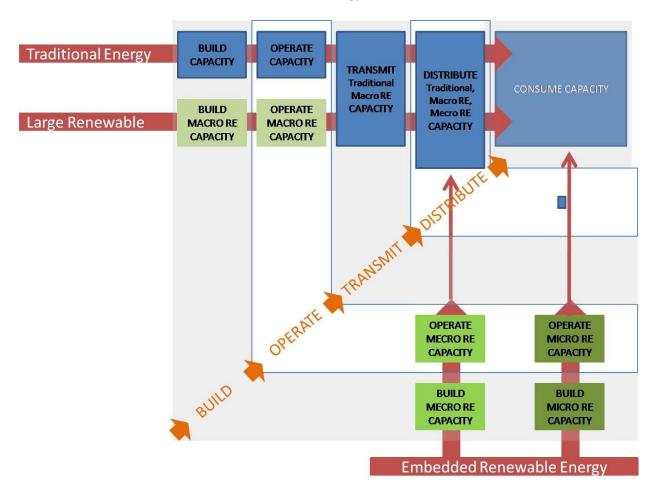
An Embedded Generator may at a maximum prior to opting into participation in the FIT program choose to participate in the Net Metering Program. Under the Net Metering program the participant generating facility is provided an upgraded load meter appropriate to the bi-directional measurement of electricity consumed and electricity fed onto the Grid at no direct cost – this cost recovery has already been accommodated in other prior rate increases, and the Net meter participant incurs no connection fees associated with their generation facility.

The subsequent choice to participate in the FIT Program therefore only requires the incremental cost of a Generation Meter, and metering account management activities for settlement with the OPA. Given that the government has directed the OPA and OEB to recover costs associated with the FIT program through Province-wide rate increases, we conclude that the metering and account management activities fall into this cost bucket; Participation Cost, and the embedded generator should therefore incur \$0.00 Fixed charges.

The Volumetric component for the micro generator is also \$0.00 given that the Net metering due diligence and technical risk assessment already determined that systems of a rated capacity of 10KW or less have no or negligible impact on the grid. Further, our recommendations and definitions provide that to qualify as a MicroFIT Embedded Renewable Energy Generation Facility the associated load customer will consume all or nearly all of the electricity generated, resulting in no variable costs to the distributor regardless of installed rated capacity.

The direct costs associated with a Micro Embedded Renewable Energy Generation Facilities-FIT may vary in consideration of the connection configuration. We propose that this Customer Class be defined so as to minimize any potential variation among connection configuration cost choices within this class, and that the non-commodity charges levied by the distribution companies against the associated load customer be deemed to more than compensate the distribution company for these potential and limited variances.

The following image shows at a high level the NegaWatt Value components that accrue to the Province from the investment and installation of embedded generation facilities through the elimination of activities and costs otherwise related to traditional energy sources and models.



### **Implementation**

The effective date for the new rates proposed in this submission for the Customer Class of MicroFIT Embedded Renewable Energy Generation Facilities should be retro-active to at least 1 year prior to the launch of the Renewable Energy Standard Offer Program, or such other date as deemed to be the earliest point in time where a customer may have known or reasonably expected that the Government of Ontario would introduce Renewable Energy Feed-In Incentives.

### **Final Considerations**

Our holistic approach to the specific issues and customer class in this proceeding requires that we additionally consider all Customer Classes, albeit without detailed examination of those classes beyond the scope of this proceeding. Our approach has resulted in a definition of customer classes that we do not believe is exhaustive, but rather that will provide the OEB and participants in this and future related proceedings the appropriate framework from which to develop an exhaustive list of issues, costs, value and subsequently generator customer classes.

Our approach and the subsequent work that we hope stems from this approach will maximize the investments in Renewable Energy across the province while simultaneously minimizing the additional unplanned investments in infrastructure to support these new renewable generation facilities.

Specifically, our approach will result in a greater number of generating facilities that are connected to or through an Associated Load resulting in both displaced infrastructure investments and increased Transmission and Distribution capacity availability on existing infrastructure thereby maximizing the NegaWatt Value to Ontarians, minimizing the investment costs and associated risks for project owners, and, contributing to the rapid and successful development of a robust Renewable Energy industry in Ontario, while ensuring a fair, reasonable, and equitable program for all Ontarians.

We urge the OEB to ensure equal opportunity across Ontario to participate in the GEA FIT program by establishing uniform connection and management rates across the Province for each Customer Class that reflects reasonable and least cost practices for each Customer Class.

### **Appendix A: Proposed Definitions**

### Renewable Energy Generation Facility; (REG)

Any generation facility producing electricity from a Renewable Source that is connected to the IESO controlled transmission or distribution system.

### **Embedded Generation Facility (EG)**

Any generation facility producing electricity that is connected to the distribution system in such a manner and at such a point of connection as to have or cause little or no impact on the Grid (Negligible Impact) through the feed-in or delivery of energy generated from the facility due to the combined considerations of installed rated capacity of the facility and average usage by the associated load facility.

### Embedded Renewable Energy Generation facility (ERG)

Any generation facility producing electricity from a Renewable Source that is connected to the IESO controlled transmission or distribution system where the connection point is behind the load meter of an Associated Load Customer and the generation facility output is deemed to have a negligible impact on the Grid relative to the associated load consumption behaviour and patterns as defined by the Grid Impact Schedule.

### Associated Load Customer (ALC)

Any Load customer that in relation to a Renewable Energy Generation Facility is either the same entity, load customer and generator, or, a contractually obligated party in relation to and for the consumption of all possible energy generated by the related Generation Facility.

### **Grid Impact Schedule (GIS)**

A table showing the ratio of output produced by a Renewable Energy Generation Facility relative to its Associated Load Customer's consumption behaviour that identifies the Net Grid Impact of the facility and determines the appropriate Customer Class for that facility.

#### Renewable Energy Generation Facility-FIT; (REG- FIT)

Any generation facility producing electricity from a Renewable Source under contract with the OPA to sell the output pursuant to the FIT Program that is connected to the Ontario IESO controlled transmission or distribution system.

### Embedded Renewable Energy Generation facility- FIT (ERG- FIT)

Any generation facility producing electricity from a Renewable Source under contract with the OPA to sell the output pursuant to the FIT Program that is connected to the Ontario IESO controlled transmission or distribution system where the connection point is behind the load meter of an associated load customer and the generation facility output is deemed to have a likely Impact on the

Grid relative to the associated load consumption behaviour and patterns as defined in the appropriate schedule.

### Micro Embedded Renewable Energy Generation Facility-FIT (micro ERG-FIT)

Any generation facility producing electricity from a Renewable Source connected to the IESO controlled transmission or distribution system that is under contract with the OPA to sell the output pursuant to the FIT Program and that meets any one of the following criteria:

The generation facility has an installed Rated Capacity of 10 KW or less, or;

The connection point of the generation facility is behind the load meter of an Associated Load Customer and the generation facility output is deemed to have a Negligible Impact on the Grid relative to the Associated Load Customers' consumption behaviour and patterns as defined by the Grid Impact Schedule, or;

The connection point of the generation facility is located, connected, and, configured in such a manner in relation to an Associated Load Customer as to result in a Negligible Impact on the Grid relative to the Associated Load Customers' consumption behaviour and patterns as defined by the Grid Impact Schedule, which may be due to a device or mechanism that limits or prevents any such impact. (Under this condition, the OPA FIT payments would reflect only total kWh produced AND consumed)

### Renewable Energy Recovery Fee (RERF)

The province wide ratepayer cost to finance and recover the Governments GEA FIT and other program costs. Variable by Class and Calculated and adjusted according to a predefined formula that reflects the total number of participants in the FIT Program and the projected annual yield from the related FIT renewable energy generation facility in that Customer Class.

#### Negawatt

A unit of power avoided or saved from use on the energy grid.

#### **Negawatt Value**

The calculated full life cycle value of a unit of power avoided or saved from use on the energy grid including; all displaced costs, activities, and, impacts – social, economic, and environmental, that would otherwise be related to or incurred in any applicable activity or process including; production, transmission, distribution, and consumption of the equivalent un-avoided or unsaved unit of energy.

### **Negligible Impact**

Low or No net outflow of electricity from a generation facility and or associated load, whether by mechanical limitation, the ratio of generated electricity to the associated load facilities' consumption, or, by definition of a Micro facility with an installed rated capacity of 10KW or less.