



November 26, 2009

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street
27th Floor
Toronto, ON M4P 1E4
Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

Re: Distribution Rate for Embedded Generators <10 kW, EB-2009-0326

ENWIN's responses to the interrogatories of Board Staff follow.

Question #1

With respect to the statement "...administering indirect-series connected generators will continue to drive higher back-end costs to perform 'deduct metering' for associated load accounts" in the "Cost Elements to be Recovered" section of the 1st reference:

- a. Is Enwin Utilities of the view that:
 - The resulting incremental back-end costs imposed on associated load customers as a result of indirect-series connected generator customers should be recovered from generator customers, or
 - These costs should be recovered from associated load customers.
- b. Please provide if available, details and an estimate of these incremental costs.

Response

ENWIN's proposal asked the Board to revisit the principle of cost allocation between load and generation customers. *ENWIN's* approach to cost allocation, as recently as its cost of service rate application (EB-2008-0227), is to propose allocations that follow the Board's directions as closely as possible.

ENWIN will be participating in the Board's previously announced sessions during which *ENWIN* understands that the Board will be clarifying many of the new rules related to distributors' requirements in respect of renewable generation. Subject to that and other direction from the Board, *ENWIN* expects it will be especially difficult to segregate back-end customer issues related to in-series connections given the relationship between the load and generation accounts. For example, calculating bills for the load account will depend on the generator account meter reads.

Because the cost allocation principles have yet to be confirmed and because, in particular, in-series accounts are so intertwined, *ENWIN* does not have estimates of these incremental costs.

Question #2

With respect to the statement “Currently, generators do not appear to pay for the costs they create within distribution systems...” in the “Cost Elements to be Recovered” section of the 1st reference:

- a. Please provide specific descriptions of the types of costs generators create within distribution systems, and
- b. Please provide if available, an estimate of these costs.

Response

Customers (load or generation) uniquely cause costs behind their points of connection and related to administration of their individual accounts. Beyond those singularities there is the network of people and technology that are distribution companies and systems. Cost responsibility for those networks could just as easily be assigned to load or generation customers. The prevailing principle appears to be one of assigning the costs to load customers. That principle may find its origins or conceptual foundation in networks that distributed electricity from source transmission points to the load. However, those networks are changing and the predominant cause (though not exclusive cause) seems to be changes in generation, not load.

ENWIN's position is that a contemporary re-evaluation of the underlying understanding and cost allocation principles attributed to the networks is a reasonable and prudent course of action for the Board and one that is central to this proceeding. It may well be that all network costs ought to continue to be borne by load customers. However, it may be that incremental network costs ought to be borne by generation customers. Alternatively, it may be some other allocation or even a determination that allocating incremental costs may not be the best approach for dynamic networks with linear assets and complexities that may be greater than the sum of the individual drivers. “Who causes what costs” depends entirely on the way one perceives the current and evolving functions of networks and the benefits obtained by the connected singularities.

At this time, *ENWIN* does not have sufficient information to provide the cost estimate requested.

Yours very truly,

***ENWIN* Utilities Ltd.**

Per: Andrew J. Sasso
Director, Regulatory Affairs

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Re: Distribution Rate for Embedded Generators <10 kW, EB-2009-0326

ENWIN's responses to the interrogatories of the London Property Management Association follow.

Question #1

The evidence indicates that connection costs, which could vary according to connection type (direct, indirect-parallel, indirect-series) and due to the individual location and set-up circumstances and choices of generators, will be recorded directly from the individual generator.

- a) What type of capital costs would be incurred by distributors in order to service MicroFit generator customers? How would these costs differ by connection type?
- b) Would the economic evaluation model be applied to MicroFit generator customers to calculate an aid-to-construct based on the individual capital costs associated with the connection to the customer and an estimate of ongoing OM&A costs relative to the revenues received from the customer from whatever rate is ultimately put in place?

Response

It is a significant consideration in these proceedings that there is very little experience with distributed renewable micro-generation. *ENWIN* itself does not have experience with metering, billing or settling these facilities. *ENWIN* anticipates different cost causality based on the fact that its distribution system is already utilized differently by its load customers. For example, certain load customers own transformers and therefore do not cause or pay for LDC transformation.

ENWIN has not developed an expectation in respect of the capital cost categories that will be impacted in connecting and servicing microFIT generators. *ENWIN* plans on recovering the capital contributions from generators according to the pertinent rules and procedures. *ENWIN* plans on accurately tracking all capital costs and eventually seeking recovery for those costs, less the capital contributions, according to the pertinent rules and procedures.

ENWIN is open to Board direction that the economic evaluation model be used for certain purposes in respect of microFIT generators.

Question #2

Please provide a listing of a capital accounts that would be included in the “other costs” that will be recovered through rate base (page 3).

Response

At page 3, the proposal stated: “While microFIT generators will pay the connection costs, due to project size it is likely that all other costs will be recovered through rate base.”

“Other costs” in this context was a reference to expansion costs and renewable enabling improvements. The assumptions in the proposal that *ENWI* was making explicit through the statement above was that the small size of these projects would mean:

- expansion costs below the \$90/kW threshold and
- no recovery through global adjustment for renewable enabling improvements.

In respect of particular capital accounts, please see the response to Question #1.

Question #3

With respect to the O&M costs, the evidence states that the costs caused by MicroFit generators will generally fluctuate according to actual generation. Please provide a list of the types of O&M costs that will be caused by these generators and for each type of cost please explain how that costs varies with generation.

Response

ENWIN readily acknowledges that it does not have experience in managing a distribution system designed to accommodate both its load customer population and an extensive number of micro-generators. Accordingly, *ENWIN* did not take a position in its proposal in respect of the particular incremental costs arising out of the arrival of extensive grid-connected distributed renewable micro-generation.

The purpose of *ENWIN*'s submission in respect of administrative costs was to note that in theory, administrative costs, such as billing, will not generally fluctuate according to nameplate capacity or actual generation. Administrative costs are generally, if not entirely, fixed costs. Accordingly, those costs should be recovered using a fixed rate rather than a capacity rate or a volumetric rate.

Similarly, *ENWIN*'s submission in respect of O&M costs was to note that operation and maintenance costs tend to be more driven more by capacity and usage. The proposal noted, however, that the relatively narrow capacity band (<10 kW) may sufficiently mitigate the need to introduce a capacity or actual generation charge and allow for these costs to be recovered through the fixed charge too. *ENWIN* is not in a position to lead evidence on how costs vary according to capacity or actual generation. *ENWIN*'s hope is that its proposal will encourage consideration of the issue and contributions from those with expert evidence on this topic for that purpose.

Yours very truly,

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Re: Distribution Rate for Embedded Generators <10 kW, EB-2009-0326

ENWIN's responses to the interrogatories of the School Energy Coalition follow.

Question #1

Please describe the types of embedded renewable microgeneration projects that *EnWin* believes could qualify for microFIT status, but will not because of the provincial content requirements, yet still will be financially viable.

Response

At issue for *ENWIN* is not whether a connecting generation project is financially viable, but the capital and OM&A costs associated with the change from a distribution system designed to flow electricity to load to a dynamic system designed to serve load and generation, including highly intermittent generation. *ENWIN* is also interested in providing its customers and the public with clear and consistent information.

ENWIN is aware of media reports that some generation projects have gone forward with development (though not yet connection) despite not meeting the current provincial content requirements. Whether those projects or future projects connect to obtain some source of revenue while undertaking remedial retrofits, whether the provincial content requirements are lessened or eliminated, whether technological innovation changes the viability of projects, whether some customers have objectives that outweigh financial objectives, or whether some other circumstance leads a non-microFIT generator to connect, *ENWIN's* interests and obligations to its distribution system and the customer remain very similar.

Question #2

Please advise whether, in the opinion of EnWin, the costs caused on the distribution system from an under 10 KW renewable generator that does not qualify for microFIT would be different from costs caused by a similar renewable generator that does qualify for microFIT, for example because of Ontario content qualification.

Response

In *ENWIN*'s experience with load customers, it is the existence, nature and operation of connected load equipment that causes costs, not the provincial content of the equipment. *ENWIN* expects that this principle will hold true for generation equipment connected to the distribution system.

Question #3

With reference to the cost categories referred to in the EDA submission at page 2, please advise which of those costs EnWin believes are not caused or increased for the distributor by embedded renewable microgenerators, and which are, with reasons for each. Please advise any additional costs, not included in the EDA cost categories, that EnWin believes are imposed on the distributor or increased because of embedded renewable microgenerators.

Response

ENWIN readily acknowledges that it does not have experience in managing a distribution system designed to accommodate both its load customer population and an extensive number of micro-generators. Accordingly, *ENWIN* did not take a position in its proposal in respect of the particular incremental costs arising out of the arrival of extensive grid-connected distributed renewable micro-generation.

Question #4

Please advise whether, in EnWin's view, it would be appropriate for the Board to establish a single, province-wide rate for renewable embedded microgenerators, until each LDC comes forward in a cost of service proceeding with an updated cost allocation study that identifies an LDC-specific rate, together with reasons for or against that approach?

Response

As the Board and the SEC are well aware, each distribution system is unique and the costs to serve each of those systems vary. This is a key ratemaking consideration. It is a consideration that finds its most clear expression in Cost of Service proceedings, but also appears in the Board's approach to comparators and cohorts.

ENWIN acknowledges the Board's attempt to recognize the LDC-specific impacts of micro-generation by establishing an interim rate equal to the LDC's Residential monthly service charge. As a first step, this appears logical in that both Residential and microFIT generation customers are metered and have small kW profiles. Further, in this early stage of development, it appears reasonable to anticipate generation customer inquiries regarding connections and billing that are more consistent with individual Residential customers than, for example, individual USL connections. However, not all LDCs have the same fixed-volumetric split and the full cost of serving these customers is based on both components of the distribution charge, not just the fixed component.

Accordingly, barring other direction from the Board on cost allocation principles as they pertain to generators as against load customers (as sought in the proposal) and pending a future cost allocation study, *ENWIN* would propose to establish a fixed rate for microFIT generators equal to 100% of the total Residential distribution charge.

In any event, moving to a provincial rate would be a step backward from the interim arrangement. It may also set unreasonable expectations among generators and potential generators given that the rates would likely change significantly in many service territories following the cost allocation studies, which could be conducted several years after the generation investments.

Question #5

Please advise whether EnWin is proposing that ultimately there should be a set of generator rates from distributors that is as granular and cost-driven as the current set of rates for load customers of distributors. If this is the case, please describe EnWin's preferred process for achieving that end result, and its proposal for action by the Board today to establish generator rates in the meantime.

Response

ENWIN's experience for decades has been distributing a steady flow of electricity from the transmission system to load customers. Based on its understanding of the recent legislation that drives this proceeding, *ENWIN* expects that its experience in the decades to come will be as an owner and operator of a dynamic system that features load, storage and generation. These customers may have static or fluctuating locations (e.g. home vs. electric car). The generation will not necessarily be steady; it may fluctuate with cloud cover, wind velocity and other hard to predict and quick to change variables. There is a great deal of uncertainty in respect of the nature, extent and pace of these changes and the required responses at *ENWIN* and in its distribution system. While the "hows" are less certain, the "what" is more certain: distributed renewable generation will become prevalent.

Accordingly, in its proposal, *ENWIN* has asked the Board to revisit the principles that were developed in the context of what distribution entailed in previous decades. *ENWIN* perceives these principles to be central to this proceeding. While it will take experience to refine cost allocation issues at customer type levels (i.e. load, generation) let alone at the more granular level currently considered for load customers, it seems to *ENWIN* that this is the time to begin reforming the principles in the context of what distribution is already starting to entail and will increasingly entail in the decades to come.

If the Board determines that distributed generators should be allocated the costs they cause, then *ENWIN* proposes to establish a fixed rate for microFIT generators equal to 100% of the total Residential distribution charge. *ENWIN* proposes to maintain a charge on that basis (as recalculated annually through annual IRM rate cases) until such time as it brings forward a rebasing application.

That rebasing application would include a cost allocation study. In the near term, there may not be sufficient industry expertise to conduct the study at as granular a level for generators as is currently the case for load customers, which is needed to support a greater number of rate classes. However, *ENWIN* anticipates that the study would:

- 1) allocate all costs at the customer type level (i.e. generation, load),
- 2) allocate "load customer costs" at the granular load customer level among load customer rate classifications, as has been done in the past.

As the industry builds experience with distributed generation and as the smart grid evolves, *ENWIN* anticipates that a more granular treatment of generators will result and may mirror the current treatment of allocation among load customer rate classifications.

Question #6

Please provide estimates of the expected timing of the first microFIT projects to come in service in the EnWin service area, if known.

Response

ENWIN does not have an estimate of the timing of the first projects to come in service in its service area. Starting today, the Board is hosting a series of information sessions to explain to distributors implementation rules for this new renewable generation context. Further, *ENWIN* continues to receive new information from the OPA. *ENWIN* has not been advised of any conditional offers extended by the OPA to microFIT generators in its service territory.

Yours very truly,

***ENWIN* Utilities Ltd.**

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Director, Regulatory Affairs

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ENWIN's responses to the interrogatories of the Vulnerable Energy Consumers Coalition follow.

Question #1

Preamble: The Proposal states that not all distribution system cost elements will be common to all microFIT generators (page 1). It also states that "while microFIT generators will pay connection costs, due to project size it is likely that all other costs will be recovered through rate base" (page 3).

- a) Please provide a schedule that set out all the capital cost categories (per the USOA) where ENWIN expects costs could be incurred by distributors in connecting and servicing microFIT generators and indicate those where the cost element is likely to apply to all microFIT generators versus those that may only apply to some microFIT generators.
- b) In responding to part (a), please note those cost categories that ENWIN expects will be recovered from rate payers versus where the costs will be paid by generator or through the Global Adjustment (per Regulation 330/09).

Response

For clarity, the proposal stated, "*ENWIN anticipates* that not all distribution system cost elements will be common to all microFIT generators." [emphasis added] It is a significant consideration in these proceedings that there is very little experience with distributed renewable micro-generation. *ENWIN* itself does not have experience with metering, billing or settling these facilities. *ENWIN* anticipates different cost causality based on the fact that its distribution system is already utilized differently by its load customers. For example, certain load customers own transformers and therefore do not cause or pay for LDC transformation.

ENWIN has not developed an expectation in respect of the capital cost categories that will be impacted in connecting and servicing microFIT generators. *ENWIN* plans on recovering the capital contributions from generators according to the pertinent rules and procedures. *ENWIN* plans on accurately tracking all capital costs and eventually seeking recovery for those costs, less the capital contributions, according to the pertinent rules and procedures.

Question #2

Preamble: ENWIN anticipates that both administrative costs and O&M costs will be incurred in servicing microFIT generators (page 3).

- a) Please provide a schedule that sets out all the O&M and Administrative accounts (per the USOA) where ENWIN expects costs will be caused by microFIT generators.
- b) Please indicate those accounts where ENWIN expects the costs will be recovered from rate payers as opposed to externally funded.

Response

ENWIN readily acknowledges that it does not have experience in managing a distribution system designed to accommodate both its load customer population and an extensive number of micro-generators. Accordingly, *ENWIN* did not take a position in its proposal in respect of the particular incremental costs arising out of the arrival of extensive grid-connected distributed renewable micro-generation.

The purpose of *ENWIN*'s submission in respect of administrative costs was to note that in theory, administrative costs, such as billing, will not generally fluctuate according to nameplate capacity or actual generation. Administrative costs are generally, if not entirely, fixed costs. Accordingly, those costs should be recovered using a fixed rate rather than a capacity rate or a volumetric rate.

Similarly, *ENWIN*'s submission in respect of O&M costs was to note that operation and maintenance costs tend to be more driven more by capacity and usage. The proposal noted, however, that the relatively narrow capacity band (<10 kW) may sufficiently mitigate the need to introduce a capacity or actual generation charge and instead allow these costs to be recovered through the fixed charge too. *ENWIN* is not in a position to lead evidence on how costs vary according to capacity or actual generation. *ENWIN*'s hope is that its proposal will encourage consideration of the issue and contributions from those with expert evidence on this topic for that purpose.

ENWIN expects that all costs will be recovered from ratepayers. Whether those costs are recovered from only local customers or from the provincial pool of customers appears to depend largely on the application of O.Reg. 330/09. Whether those costs are recovered from load or generation customers appears to depend largely on this proceeding. In respect of the costs at issue in this proceeding, *ENWIN* reiterates its position from the proposal: "As an LDC, *ENWIN* remains neutral on the issue of which classes of customers ought to pay for the costs of distribution."

Question #3

Preamble: ENWIN proposes LDC-specific rates (page 3).

- a) Assuming the Board adopts ENWIN's proposal for a single microFIT class with a single rate and directs that the rate be a fixed charge, how would ENWIN establish its LDC-specific rate for microFIT generators?
- b) If ENWIN considers that more direction is required in order to establish the rate, please indicate where further direction is required, what ENWIN recommends as the appropriate approach.

Response

ENWIN acknowledges the Board's treatment of this issue to date, in particular, establishing an interim rate equal to the LDC's Residential monthly service charge. As a first step, this appears logical in that both Residential and microFIT generation customers are metered and have small kW profiles. Further, in this early stage of development, it appears reasonable to anticipate customer inquiries regarding connections and billing that are more consistent with individual Residential customers than, for example, individual USL connections. However, not all LDCs have the same fixed-volumetric split and the full cost of serving these customers is based on both components of the distribution charge, not just the fixed component.

Accordingly, barring other direction from the Board on cost allocation principles as they pertain to generators as against load customers (as sought in the proposal) and pending a future cost allocation study, *ENWIN* would propose to establish a fixed rate for microFIT generators equal to 100% of the total Residential distribution charge.

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