

Submission re: Proposed Enhancement's to Ontario Net Metering Framework

1. Introduction

The Canadian Solar Industries Association (CanSIA) is a national trade association that represents the solar energy industry throughout Canada. CanSIA's vision is for solar energy to be a mainstream energy source and an integral part of Canada's diversified energy mix by 2020. CanSIA also intends for the solar energy industry to be sustainable and operating in a supportive and stable policy and regulatory environment within a similar time frame.

Below is CanSIA's submission related to the following:

- Net Metered Generation Facilities and Virtual Net Metering Demonstration Projects (EBR Registry Number: 013-1913)
- Ensuring Appropriate Consumer Protections (EBR Registry Number: 013-1915)
- Ensuring Appropriate Siting of Renewable Generation Facilities (EBR Registry Number: 013-1916)

2. Enhancements to Ontario Net Metering Framework

2.1 Net Metered Generation Facilities and Virtual Net Metering Demonstration Projects (EBR Registry Number: 013-1913)

Third-Party Ownership

CanSIA generally supports the proposed net metering regulations pertaining to the Third-Party Ownership (TPO). Furthermore, CanSIA applauds the government's efforts to enable new and innovative business models which will provide consumers with more accessible energy choices, particularly for those who may not have sufficient capital to adopt solar on their own.

In addition, CanSIA makes the following recommendations and comments:

Commercial and Industrial Rate Design

CanSIA strongly recommends that the Ontario Energy Board (OEB) finalize the proceeding related to the [Rate Design for Commercial and Industrial Customers](#) prior to the proposed net metering regulations enforcement date (e.g. July 1, 2018). Although this matter is not directly tied to the proposed net metering regulations, the outcome of this rate design proceeding will have a direct impact on both current and future solar net metering project economics. Without visibility into the long-term rate design for commercial and industrial customers, it is difficult for project proponents to understand the

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long-term financial viability of a project. Should this OEB proceeding continue to go beyond the enforcement date the uncertainty around commercial and industrial rate design may delay the adoption of solar net metering projects.

Retail License

CanSIA understands that the Ministry of Energy will direct or instruct the OEB to create a new class of Electricity Retailer License for solar companies deemed to be electricity retailers (e.g. selling Power Purchase Agreements (PPA)). CanSIA recommends that the OEB ensure there is a formal stakeholder consultation process as part of the license development, and that this process be completed in a timely manner, providing solar companies with the opportunity to be licensed when the net metering regulations are put into force on July 1, 2018.

Also, it is CanSIA's view that the definition of a retailer in this new class should only apply to entities employing a PPA marketing approach as this mechanism is clearly a sale of electricity from the TPO to the building owner or tenants. Other mechanisms such as equipment leasing and financing should be excluded as they do not involve selling electricity to the building owner or tenants.

Furthermore, CanSIA asks that the Ministry of Energy provide clarity regarding whether solar companies need to obtain this new class of retail license if they have already obtained the standard Electricity Retailer License.

Multiple Third-Party Owners:

To enable various business models that can help to reduce the overall costs to customers, there should be no limitation on the number of third party owners of one or more projects. Due to various corporate or projects structures, there may be cases where multiple owners will have stake in one or more projects.

As it relates to retail licensing, if there are multiple owners of a project only one owner should be required to be licensed. If all parties must be licensed it may hinder some stakeholders such as aboriginal communities and community cooperatives who want to generate and own solar PV facilities. Also, if a project is held within a Limited Partnership (LP), then only one shareholder should be required to be licensed.

Carbon Offset Credits

A carbon offset is a credit for greenhouse gas reductions achieved by one party that can be purchased and used to compensate (offset) the emissions of another party. Previously under the FIT program these credits were owned by the Ontario Government since the government was directly responsible for procuring renewable energy. Under a net metering framework, the government will have no direct relationship, ownership or otherwise, in these projects. CanSIA recommends that the carbon offset

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credits, potentially achieved by net metering projects, should be considered property of the customer using the clean electricity or be allowed to be assigned to another entity (e.g. TPO) if authorized by the customer. Many customers claim their carbon offset credits (e.g. environmental attributes) as part of their corporate environmental and sustainability plans.

Virtual Net Metering (VNM) Demonstration Projects

CanSIA supports the implementation of Virtual Net Metering (VNM) Demonstration Projects. The continued evolution of VNM regulations is instrumental to providing more consumers with a variety of ways to participate in the generation and consumption of renewable energy, allowing consumers to make energy choices that match their lifestyle.

In addition, CanSIA makes the following comments:

VNM Demonstration Project Program Timing and Implementation: CanSIA understands that the Independent Electricity System Operator (IESO) will be responsible for designing and implementing the VNM demonstration project program. CanSIA recommends that there is a formal stakeholder consultation process during the design stage to allow the industry the opportunity to provide feedback. At the same time, CanSIA recommends that the design and implementation process start as soon as possible in order to aim for the proposal applications to be submitted and approved by the end of Q2 2018. This will allow for LDCs and project developers to start projects in Q3 of 2018.

VNM Demonstration Project Program Preliminary Considerations

Storage: Storage is already included in the net metering regulations. CanSIA recommends that storage also be permitted as part of the VNM demonstration projects program.

Cross LDC Pilot: CanSIA supports and recommends the enabling of cross-LDC demonstration projects, where the generator and customer may be located in different distribution systems. At the very least, CanSIA would suggest including one demonstration project of this type in the pilot phase with LDC input or guidance. While this type of approach may create technical and administrative challenges, that is precisely why it is important to learn from these types of projects in advance of developing future VNM regulations. Furthermore, the key consumer benefit is in addressing the inability of apartment dwellers, renters, and homeowners with small or shaded roofs to participate in standard net metering or behind-the-meter distributed generation.

Future VNM regulations

Further to the design and implementation of the VNM demonstration project program, CanSIA recommends that a plan be created, including timelines, that clearly identifies how learnings from these demonstration projects will be utilized to create future virtual net metering regulations. Other leading energy jurisdictions throughout North America (e.g. New York, California) have implemented virtual net

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metering regulations and programs and it will be important for Ontario to quickly adopt VNM best practices, while implementing the Ontario specific learnings, to ensure that Ontario remains an energy innovation leader.

2.2 Ensuring Appropriate Consumer Protections (EBR Registry Number: 013-1915)

CanSIA agrees that protecting consumers is not only good for consumers but also helps to provide a professional and ethical energy industry. Therefore, CanSIA supports the proposed consumers protection amendments. However, CanSIA would like to raise the point that for those considering third-party arrangements with customers, this new regulation puts the onus on the third-party provider to ensure clarity of information provided to customers. It is not clear from the regulation what recourse a customer would have, for example, if the customer claimed that penalties in their contract with the third-party owner.

2.3 Ensuring Appropriate Siting of Renewable Generation Facilities (EBR Registry Number: 013-1916)

In the context of siting requirement considerations, it's important to understand the fundamental differences between the previous microFIT, FIT and LRP (FIT) program related projects versus non-rooftop solar net metering projects.

Firstly, under the previous FIT regime, the key motivation for non-rooftop solar PV facility proponents was to maximize revenues and profits with no consideration of the onsite load requirements. Simply put, there was no relationship between the size of the FIT based solar PV facility and the electricity needs of the building or operations. Under the current and proposed net metering regulations, the key motivation for non-rooftop solar PV facility proponents is to lower electricity costs while they must also adhere to the net metering regulations that limit the size of the system to the onsite electricity load requirements. Simply put, there is a clear relationship between the size of any net metering based non-rooftop solar PV facility and the electricity needs of the building or operations. As such, the net metering framework employs an inherent limiting factor that ensures non-rooftop solar PV facilities will be sized appropriately to the needs of the building and property (e.g. smaller non-rooftop solar PV net metering facilities compared to larger non-rooftop solar PV FIT related facilities).

Secondly, it is important to consider the overarching policy objectives of the government. Specifically, one key priority of the current government under the [Climate Change Action Plan](#) (CCAP) is to decarbonize the economy and encourage fuel switching to electricity, particularly for transportation, agriculture, and the heating and cooling of buildings. In other words, the Ontario government wants to electrify the economy. Utilizing both rooftop and non-rooftop solar PV facilities can play an instrumental

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role in supplying the increased amount of electricity required to meet the demand resulting from fuel switching.

Based on the fundamental differences between the FIT program and net metering projects, and in combination with Ontario government climate change objectives, CanSIA believes that the proposed siting regulations are excessive and overly restrictive. It is CanSIA's opinion that although siting restrictions are important, the province has been too blunt in its attempt to prevent instructive project and actually prevents solar PV projects that would actually be welcomed by many stakeholders and communities. This would be a good opportunity for the government to look at providing municipalities with greater control over how to site non-rooftop solar PV facilities in their communities as they each have different climate change, environmental, and economic development objectives.

Therefore, CanSIA makes the following comments and recommendations:

Setback Requirements and Connecting to Residential Dwellings

CanSIA understands that the Ministry of Energy's main goal for employing a 15-metre setback siting requirement is to prevent the placement of *intrusive* non-rooftop renewable generation facilities in densely populated urban residential and suburban residential areas. Furthermore, it is CanSIA's current understanding that the proposed regulations would employ a 15-metre setback siting requirement for all zoned property types, including but limited to rural-residential, commercial, industrial, and agricultural zoned properties, to align with the Environmental Activity and Sector Registry (EASR) non-rooftop siting requirements for solar facilities above 10 kW and below 500 kW.

If the main purpose of the proposed regulation is to prevent the placement of *intrusive* non-rooftop renewable generation facilities in densely populated urban residential and suburban residential areas, it is CanSIA's view that the proposed non-rooftop siting requirements are overly restrictive and go far beyond mitigating against urban and suburban residential non-rooftop projects.

CanSIA has concerns regarding the following proposed regulations:

1. *Under the proposed regulation, the following types of renewable energy generation facilities would not be permitted to be connected to the distribution system or the transmission system.*
 - a. *Non-Rooftop Solar PV Facilities proposed to be sited less than 15 metres from the facility property boundaries.*
 - b. *Non-Rooftop Solar PV Facilities and Wind Facilities proposed to be connected to a residential dwelling.*

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As such, CanSIA makes the following recommendations:

Alternative 1:

1. *Amend proposed regulation 1. a. to clarify that a Non-Rooftop Solar PV Facility situated on an urban residential zoned property lot must not be sited less than 15 metres from the facility property boundaries, where the facility property boundaries abut a residential property boundary.*
2. *Amend proposed regulation 1. b. to clarify that a Non-Rooftop Solar PV Facility that connects to an urban-residential dwelling (as opposed to a rural residential dwelling) should be permitted if it is sited less than 15 metres from the facility property boundaries.*

These recommendations address the Ministry of Energy's main concern in preventing the placement of intrusive non-rooftop renewable generation facilities in densely populated urban residential and suburban residential areas, while at the same time removing the restriction of siting non-rooftop solar PV facilities on commercial, industrial, rural-residential zoned properties, or where urban-residential zoned property lots do not abut a residential property.

Alternative 2:

1. *Under the proposed regulation, the following types of renewable energy generation facilities would not be permitted to be connected to the distribution system or the transmission system.*
 - a.) *Non-Rooftop Solar PV Facilities proposed to be sited less than 15 metres from the facility property boundaries;*
 - i. *Except where a municipality has passed a zoning by-law pursuant to Section 34 of the Planning Act to regulate the land-use requirements for renewable energy generation facilities.*
 - b) *Non-Rooftop Solar PV Facilities and Wind Facilities proposed to be connected to a residential dwelling*
 - i. *Except where a municipality has passed a zoning by-law pursuant to Section 34 of the Planning Act, to regulate the land-use requirements for renewable energy generation facilities, or*
 - ii. *Except where the facility is sited less than 15 metres from the facility property boundaries.*

The recommendations provided in alternative 2 allows municipalities the flexibility to site non-rooftop solar PV facilities where they are found to be suitable at the local level.

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Agricultural Land Restrictions:

A key priority of the current government under the [Climate Change Action Plan](#) (CCAP) is to decarbonize the economy and encourage fuel switching to electricity, particularly for agriculture, transportation, and the heating and cooling of buildings and industrial facilities. Farmers typically have large transportation fleets, multiple buildings to heat and cool, and are increasingly moving towards more automated operations. As per the CCAP, farmers are encouraged to fuel switch and electrify their operations using geothermal for heating and cooling buildings and through the use of electric vehicles (e.g. cars, trucks, tractors). As such, Ontario farmers are expected to increase the amount of electricity they consume. Solar net metering, including non-rooftop solar PV facilities, can provide a significant means to assist farmers in meeting their growing electricity needs, lowering their electricity bills, while moving their operations to net zero (e.g. self-sufficiency).

CanSIA has concerns regarding the following proposed regulations:

1. *Under the proposed regulation, the following types of renewable energy generation facilities would not be permitted to be connected to the distribution system or the transmission system.*
 - a. *Non-Rooftop Solar PV Facilities over 10 kW proposed to be located on properties within prime agricultural areas as defined in the Provincial Policy Statement and designated in an official plan.*
 - b. *Non-Rooftop Solar PV Facilities over 10 kW proposed to be located on a property that is not captured by an official plan for which the prime agricultural area designated process has been completed.*

To meet the future needs of farmers and to help the province meet its GHG reduction targets, CanSIA makes the following recommendations:

1. *Under the proposed regulation, the following types of renewable energy generation facilities would not be permitted to be connected to the distribution system or the transmission system.*
 - a. *Non-Rooftop Solar PV Facilities over 250 kW proposed to be located on properties within prime agricultural areas as defined in the Provincial Policy Statement and designated in an official plan.*
 - b. *Non-Rooftop Solar PV Facilities over 250 kW proposed to be located on a property that is not captured by an official plan for which the prime agricultural area designated process has been completed.*

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Professional Confirmation

The proposed siting regulations require confirmation to the distributor or transmitter, signed by a relevant professional (e.g. a licensed surveyor, registered professional planner) that solar PV facilities meet certain setback requirements and prime agricultural area requirements.

The requirement to have professionals sign off on setback requirements and zoning requirements is excessive and adds unnecessary administrative cost. Professional signoff to confirm compliance is not required under the MOECC's Environmental Activity and Sector Registry (EASR) for ground mounted solar projects up to 500 kW. EASR compliance is based on self-assessment and compliance declarations which cuts down on red tape.

CanSIA recommends that non-rooftop solar PV facilities should follow the same self-assessment and compliance declarations, rather than imposing external professional declarations to be drafted and presented to an electricity distribution or transmission company with no expertise in such matters, and likely no interest or statutory authority in such matters. Furthermore, it is unclear how this regulation would be implemented for systems that are not grid-connected, such as off-grid systems with no utility service.

Definition of Non-Rooftop Solar PV Facility

CanSIA has concerns regarding the definition of Non-Rooftop Solar PV Facility. Currently, a Non-Rooftop Solar PV Facility is defined as a renewable energy generation facility located anywhere other than on the roof or wall of a building at which one or more solar photovoltaic panels or devices use light to generate electricity.

CanSIA recommends the following definition:

A Non-Rooftop Solar PV Facility is a renewable energy generation facility located anywhere other than on the roof or wall of a building or a structure that is physically attached to a building at which one or more solar photovoltaic panels or devices use light to generate electricity.

Alternatively, a building may be considered anything that requires a building permit from the local municipality.

Examples of such structures may include carports. Structures such as these often require a building permit from the local municipality before being constructed.

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2.4 Other Matters – Time of Use Bill Settlement

Time of Use Bill Settlement

Currently, if a load customer installs a net metering system they are required to move to tiered rates for both their electricity use as well as for the calculation of credits for exported generation. Using tiered rates for the calculation of consumed electricity and excess generation undervalues the generation of a solar PV system and lowers the revenue available to system owners to offset the system cost. It is important for the LDCs to transition from the current use of tiered rates for net metered customers to Time of Use (TOU) rates to improve the economics of solar net metering projects and to make solar energy more accessible.

CanSIA understands that the Ministry of Energy is conducting a TOU study to review the barriers and possible solutions around enabling TOU bill settlements for net metering projects. CanSIA supports the Ministry's efforts and encourages the rapid adoption of TOU bill settlement for net metering projects.

AC vs. DC

All net metering regulations should clearly state that all system sizes are based on AC sizing and not DC sizing. This would make it consistent with system sizes referenced by other government agencies and stakeholders (e.g. IESO, ESA, LDCs).

3. Conclusion

Again, CanSIA applauds the Ontario government and the Ministry of Energy for its continued efforts in transforming the energy sector in the province, allowing new innovative business and technology solutions to empower consumer and provide them with greater choice. CanSIA welcomes this opportunity to provide feedback and to continue working collaboratively with the government and its stakeholders.