CanSIA

CANADIAN SOLAR INDUSTRIES ASSOCIATION | L'ASSOCIATION DES INDUSTRIES SOLAIRES DU CANADA

CanSIA's Red Tape and Regulatory Burdens Reductions Submission

Preliminary Report

October 25, 2018

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Introduction

On September 5, 2018, the Hon. Jim Wilson, Minister of Economic Development, Job Creation and Trade, announced province-wide consultations on reducing red tape. In doing so, the Ontario Government committed to cutting red tape and reducing regulatory barriers to help Ontario industries and small businesses grow the economy and help create and protect good jobs across the province.

The Canadian Solar Industries Association (CanSIA) is a national trade association that represents the solar energy industry in Ontario and throughout Canada. CanSIA's vision is for solar electricity to be a mainstream energy source and an integral part of Canada's diversified electricity mix. CanSIA is targeting the solar energy industry to be sustainable, with no direct subsidies, and operating in a supportive and stable policy and regulatory environment. The Ontario solar industry employees approximately 5,000 people, including installers, electricians, and other blue-collar workers, in communities across the province.

CanSIA, through its industry led Advancing Solar Technology Regulations in Ontario (ASTRO) working group, has developed this preliminary report submission which identifies the key red tape issues and regulatory barriers that have contributed to higher solar industry soft costs. CanSIA's recommendations will lower costs to consumers, generators and the entire system through a more robust and streamlined regulatory framework that reduces red tape, enables customer choice, and unlocks the power of private equity. CanSIA looks forward to working collaboratively with the Ontario Government to meet these objectives.

Red Tape Regulatory Issues and Recommendations

Net Metering Regulations – Third Party Ownership

Stakeholder: The Ministry of Energy, Northern Development and Mines, and the Ontario Energy Board.

Context: The current net metering regulation, O. Reg 541/05, does not clearly indicate or establish guidelines for third-party ownership business models. This has made it extremely difficult for private equity companies to invest in the Ontario market place due to the high level of uncertainty, and thus associated risks, pertaining to the net metering regulation.

Third-party ownership models are well established in most US states and has led to a reduction in solar energy costs while providing greater access to all American homeowners and small business owners who wish to better manage their energy and lower their electricity bills by using solar energy.

Issue: To take advantage of solar energy, a family or business owner is required to self-finance the upfront costs to purchase a solar energy system or enter into a complex leasing contract arrangement. The current net metering regulation makes solar technology a very exclusive energy option and doesn't allow the majority of Ontarians to participate in the benefits of solar energy to help them lower their electricity bills.

Recommended Solution: Enhance the current net metering regulations to enable third-party ownership.

Benefit to Ontario: Enabling third-party ownership gives families, farmers and small business owners, of all income levels, the opportunity to benefit from solar energy with no upfront investment from themselves, ultimately allowing them to save money on their electricity bills. Clear third-party ownership regulations will encourage the solar industry to create innovative business models, such as bi-lateral power purchase agreements, capital financing, lease to own, and other models which drives economic efficiencies, transfers the risk of the system operations and performance to the supplier, and provides customers with greater choice in how they manage and control their energy.

Virtual Net Metering

Stakeholder(s): The Ministry of Energy, Northern Development and Mines, the Ontario Energy Board, the Independent Electricity System Operator, and Local Distribution Companies.

Context: Virtual Net Metering (VNM) can take many forms. One popular approach offers customers of all types and sizes with a no upfront investment solution to purchase solar electricity credits without the need to install a solar system on their home, building or property. For example, this no cost, all-inclusive opportunity would enable a family that rents an apartment or a small business owner that doesn't have a suitable roof for solar to "own" or "subscribe" into a solar VNM project located somewhere else on the grid and reap the benefits of a lower electricity bill. Of note, VNM customer opportunities are increasingly popular in the US which tends to have more private equity driven and transparent electricity markets.

Issue: Although VNM is economically viable, current regulations in Ontario prevent VNM solutions from being implemented.

Recommended Solution: Implement virtual net metering regulations. Subsequently, target the location of these projects in areas where municipalities approve of them and where they provide the greatest value to the grid and ratepayers.

Furthermore, to implement a VNM billing settlement, changes or upgrades to Local Distribution Company (LDC) IT and billing systems and infrastructure will likely be required. Conveniently, most LDC billing systems are expected to be updated soon and covered through the an LDC's standard OEB rate applications. This provides an excellent opportunity to cost effectively upgrade billing systems to enable VNM bill settlement.

Benefit to Ontario: As mentioned, VNM allows Ontarians of every income level and type, to lower their electricity bills by participating in solar VNM projects that don't have to be located on their home, building or property, and does not require an upfront investment. Furthermore, these projects can be located where municipalities want them and where they provide the most benefit to the grid.

Like net metering regulations that enable third-party ownership, VNM projects attract capital from the private market reducing or eliminating the need for the Province to make generation investments. This reduces the risk to not only Ontario tax payers and ratepayers, but also to VNM customers who do not need to worry about financing, operations or system performance.

LDC Processes, Costs and Timelines for Customer Connections

Stakeholder(s): The Ministry of Energy, Northern Development, and Mines, the Ontario Energy Board, and Local Distribution Companies.

Context: There are over 60 Local Distribution Companies (LDCs) in Ontario with diverse customer requirements for solar energy and energy storage connection processes, timelines and costs. Despite timing requirements provided in the Distribution System Code, the time from a connection impact assessment (CIA) application to a customer connection varies significantly across LDCs and projects. As the benefits of solar technology increase and the costs continue to decline, public interest will grow for this customer-friendly technology. These customers require predictability and consistency to further drive down costs and increase certainty to the benefit of customers.

Issue: The processes, timelines and costs requirements for connecting solar energy and energy storage systems to the grid, vary widely across LDCs and projects. Costs for impact assessments, thresholds for requiring and paying for SCADA and other protection equipment like a transfer trip, along with other interconnection costs, are but a few examples of service and physical infrastructure costs that vary widely across the province. Currently, LDCs determine the price that customers must pay without any meaningful or effective oversight.

Recommended Solution: The Ministry of Energy, Northern Development and Mines or the OEB should lead, in cooperation with the solar industry, LDCs and other relevant stakeholders, an initiative to establish a voluntary "*Industry Best Practices for Customer Connections".* CanSIA sees a voluntary best practices approach, focused on processes, timelines and costs, as the precursor to enhanced standardization in the near future.

Furthermore, CanSIA recommends that LDCs be required to put out to tender these types of connection related services and equipment requirements, in addition to other infrastructure upgrades, to allow the open market and utilities to compete as opposed to having only the monopolistic LDCs determine the cost. As such, LDCs can provide clear specifications to ensure the safety, security, and reliability of their grid system while providing all bidders with transparent information regarding the project requirements.

Benefit to Ontario: A voluntary "*Industry Best Practices for Customer Connections"* is an important step towards greater standardization and reduces uncertainty, timelines and costs to the customer and ultimately to all ratepayers.

Furthermore, requiring LDCs to put out to tender the connection related services and equipment requirements will increase competition, lower costs to customers, lower costs to all ratepayers, and improve customer service.

Small-Scale Ground-Mount Siting Restrictions Regulation

Stakeholder(s): Ministry of Energy, Northern Development and Mines, and the Ministry of Environment, Conservation and Parks.

Context: The previous government recently amended the O. Reg. 274/18: Siting Restrictions for Renewable Energy Facilities, which came into force on July 1, 2018, making the permitting of small-scale solar projects on land very bureaucratic, arbitrary and costly for property owners, particularly those located in rural Ontario. This regulation took power out of the hands of land owners and municipalities and put it into the hands of the Province, instituting a top-down approach.

Furthermore, under O. Reg. 274/18, LDCs are required to collect information about the small-scale ground-mounted solar projects and confirm that these projects comply with siting restrictions. This review is outside the normal scope of expertise for LDCs whose core business focuses on electricity infrastructure. It is unclear at this time what processes the LDCs will implement to review this information and what the implications may be for reviewing and approving these submissions. Traditionally, small-scale ground-mounted solar projects, up to 500 kW AC, are subject to the Environmental Activity and Sector Registry (EASR) which is cost and time efficient, proponent driven self-declaration process.

Issue: The newly enacted small-scale ground-mount solar restrictions are bureaucratic and costly. Specifically;

- Solar on residential land, including rural residential, is absolutely prohibited.
- There is an absolute 15-meter setback from commercial property boundaries.
- Solar is prohibited on agricultural land, even small-scale up to 10 kW solar projects.
- A professional surveyor is required for ground mount solar above 10 kW to confirm property boundary setbacks.
- A professional planner is required for ground mount solar above 10 kW to confirm property zoning.

Recommended Solution: The regulations should enact the following changes, specifically;

- The regulation – around residential prohibition, the 15-meter setback from the commercial property boundary and preventing up to 10 kW small-scale solar facilities on agricultural land – should not impose restrictions, thus leaving it up to municipalities to develop their own zoning bylaws in line with the needs and desires of the community.
- The professional surveyor requirement for ground mount solar above 10 kW should be removed. Property boundary setbacks should be included in the EASR self-declaration.
- The professional planner requirement for ground mount solar above 10 kW should be removed. Property zoning should be included in the EASR self-declaration.

Benefit to Ontario: The EASR, a cost and time efficient, proponent driven self-declaration process, should be the single window regulatory approval process for smaller ground-mounted solar facilities above 10 kW. Siting solar on residential properties, property boundary setbacks and agricultural land restrictions are best administered at the municipal level, consistent with this Government's mandate to ensure that municipalities regain planning authority over the siting of renewable projects, including both small-scale and large-scale solar projects.

One Percent Net Metering Limit

Stakeholder(s): The Ministry of Energy, Northern Development and Mines, and the Ontario Energy Board.

Context: Section 6.7.2 of the Ontario Distribution Code Section permits LDCs to restrict net metered solar energy to one percent (1%) of the distributors peak demand. The code was established using no known criteria by the OEB in 2005. Therefore, this is an arbitrary limit not based on current industry best practices. Solar technology, including invertor and energy storage technology, has advanced greatly providing sophisticated safety, control, monitoring, and other grid stabilizing features, which in combination with improved grid system capabilities, allows for net metering limits well beyond the one percent limit in Ontario.

Issue: CanSIA estimates that the net metering limit is fast approaching. Once this limit is reached, customers looking to lower their electricity bills and gain a level of energy independence using solar electricity will be shut out of the grid and thousands of jobs will be lost.

Recommended Solution: The OEB, as directed by the Ministry of Energy, Northern Development and Mines, should review Section 6.7.2 of the Ontario Distribution Code in consultation with the solar industry and other relevant stakeholders and increase the net metering limit of an LDC's peak demand based on established criteria and industry best practices. Furthermore, distributed generation grid penetration levels should be transparent and made available to the public.

Benefit to Ontario: Today's electricity consumers want energy options to help them control and manage their energy bills and thus they should have a right to connect to the publicly funded grid through net metering. This will empower consumers to generate their own electricity to lower their electricity bills, help further stabilize the grid system, leverage private equity to fund and assume risk of generation assets, and protect and create a growing number of local industry jobs across Ontario.

Time of Use Bill Settlement for Solar Net Metering

Stakeholder(s): Independent Electricity System Operator, and Local Distribution Companies.

Context: Most residential and small business customers pay for their electricity based on Time of Use (TOU) rates established by the OEB. However, if an electricity customer installs a solar 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 the solar generated electricity.

Tiered rates do not account for the difference in value between on-peak, mid-peak, and off-peak electricity. This is important because most of the generation from a solar system occurs during on-peak hours, when the grid system needs it most to displace costly gas-fired peaker plants. Using tiered rates undervalues the generation of a solar system and lowers the cost savings for families and business owners.

Issue: A solar net metered customer is unfairly and financially disadvantaged when they are moved from TOU to tiered rates.

Recommended Solution: Ensure that credits for consumed and exported energy for solar net metered customers are properly calculated based on TOU rates rather than tiered rates.

Of note, conveniently, most LDC billing systems are expected to be updated soon and covered through an LDC's standard OEB rate applications. This provides an excellent opportunity to cost effectively upgrade LDC billing systems to enable solar net metering TOU bill settlement.

Benefit to Ontario:

TOU billing helps to encourage customers to reduce their electricity consumption during times when generation costs are at their peak. This approach helps to level out electricity demand and supply which beneficial to the overall grid system.

Net metered solar systems produce electricity when the Ontario grid system needs it most, therefore, it is only fair that solar electricity is valued accordingly based on TOU rates. This not only benefits the net metered customers by lowering their electricity bills, however, it also provides benefits to the grid system by generating or displacing electricity when Ontario's grid system costs are highest.

Electricity Safety Authority Processes and Standards Interpretations

Stakeholder(s): Ministry of Energy, Northern Development and Mines, and the Electricity Safety Authority.

Context: In many parts of Ontario, Electrical Safety Authority (ESA) inspectors and technical advisors have limited education and experience concerning the inspection and approval of solar energy installations. Although the ESA provides informational bulletins, this has not effectively reduced the inconsistent interpretations by ESA representatives regarding the requirements of the electrical safety standards pertaining to solar energy installations. As a result, this has led to numerous delays and unnecessary multiple site inspections.

Issue: This lack of education along with inconsistent interpretations has led to increased costs and uncertainty for installers and customers. As a result, this has translated into higher solar installation costs meaning electricity customers realize less electricity costs savings.

Recommended Solution: The ESA needs to identify gaps and improve education and training to ensure that all inspectors and technical advisors have a consistent interpretation regarding the requirements of electrical safety standards pertaining to solar energy installations. Furthermore, processes should also be reviewed in collaboration with the solar industry to ensure they are efficient and effective.

Benefit to Ontario: Consistent interpretations of the Electrical Safety Code requirements along with more efficient and effective processes will reduce timelines, reduce repeat inspections and drive down solar installation costs. In turn, the competitive solar market will pass these costs savings onto electricity customers.