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April 6<sup>th</sup>, 2009

**Ontario Power Authority  
Suite 1600  
120 Adelaide Street West  
Toronto, ON  
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**RE: CanSIA Submission to the OPA Regarding the Proposed FIT Program**

**Introduction**

The Canadian Solar Industries Association (“CanSIA”) is the national trade association representing more than 300 solar energy companies operating across Canada. Our mission is to develop a strong, efficient, ethical and professional Canadian solar industry that is able to provide innovative solar energy solutions and play a major role as the world transitions to a sustainable future. The majority of CanSIA’s members reside and do business within the province of Ontario.

This document is CanSIA’s first submission in response to the stakeholder consultation process being conducted by the Ontario Power Authority (the “OPA”) regarding its proposed Renewable Energy Feed In Tariff Program (the “FIT Program”). CanSIA intends to make a total of four (4) submissions to provide feedback on the following topics:

1. Stakeholder Consultation Sessions 1 – 3;
2. Initialization Period & Legacy Project definition / treatment (to be submitted by the April 10<sup>th</sup>, 2009 deadline);
3. Stakeholder Consultation Session 4 on the FIT Program pricing schedule; and
4. Summary feedback following the close of the stakeholder consultation process.

CanSIA thanks the OPA for this opportunity to provide feedback on the proposed design of the FIT Program and looks forward to working together in an effort to create a more effective, equitable and robust renewable energy procurement program.

## A. Large Scale Ground Mounted Solar PV - Areas of Concern

| Priority | Issue   | Impact |
|----------|---|--------|
| 1        | Price Degression Rate & Capacity Trigger  | HIGH   |
| 2        | Ground-Mount Solar PV Tariff  | HIGH   |
| 3        | Two-year Time Limit to Achieve Commercial Operation                                 | MEDIUM |
| 4        | Solar PV Project Application security Fee and Completion & Performance Security Fee | MEDIUM |

### 1. *Price Degression Rate & Capacity Trigger*

CanSIA would like to start by stating that the most immediate and critical issue that must be resolved is the proposed degression rate of 9 percent for every 100 megawatts (“MW”) of large scale ground mounted solar PV contracts executed. This 100 MW capacity trigger removes the price certainty that attracts investment and makes a feed in tariff program such an effective method of procurement. In doing so, it acts as an effective cap on the program and will almost certainly result in the near immediate collapse of Ontario’s large scale solar industry.

We understand that Germany’s current feed in tariff program uses a similar rate degression structure to that proposed for Ontario. While this measure may be prudent now that the German market has matured, the original program that kick-started the industry had a much higher tariff with no rate regression or installed capacity limits. As a result, Germany has become the world leader in renewable energy with over a quarter of a million green jobs and more than 50,000 in the solar industry alone.

CanSIA believes that the proposed rate of \$0.443 / kWh is already marginal based on current development costs and global financial conditions. Without significant change or elimination of the degression rate, we believe it will be extremely difficult for the ground mounted solar PV industry to achieve critical mass and the growth of the rest of Ontario’s solar industry will be significantly impaired.

CanSIA submits that the ultimate purpose of the FIT Program is to achieve the goals set forth in Bill 150: The Green Energy & Green Economy Act, 2009 (the “Green Energy Act”) – namely to spark growth in green energy industries, encourage conservation and create 50,000 jobs for Ontarians in the next three years. The difference between the FIT Program and other stimulus spending is that the FIT Program is funded by draws on Ontario’s electricity rate-base as opposed to the province’s tax-base. As such, we believe it is inappropriate to focus solely on the effect on the rate-payer in determining the structure and rate of the tariff degression. We

believe this requires a more holistic analysis of the impact of the overall investment and recirculation effect on the Ontario economy and an evaluation of the program's ability to successfully create 50,000 jobs.

**Conclusion: CanSIA recommends the OPA adopt a significantly reduced depression rate that is either time-based or triggered by a much higher capacity limit. It is essential that Ontario solar industry stakeholders are consulted regarding changes to the depression rate adjustment.**

## **2. *Ground Mounted Solar PV Tariff***

As previously mentioned, CanSIA believes that a tariff of \$0.443 / kWh currently represents a marginally economic proposition and may not prove sufficient in creating a sustainable ground mounted solar PV industry.

As a result of the global financial crisis, large scale solar PV projects around the world have faced significant difficulty in attracting both debt and equity investors. In addition to an increase in the cost of capital and tighter borrowing terms, the Canadian Dollar has weakened substantially against the U.S. Dollar over the past twelve months, significantly increasing the delivered cost of solar PV panels in Ontario. These market forces have dramatically reduced the economics of large scale PV systems in Ontario.

The OPA's presentation from Stakeholder Engagement – Session 1 highlights the fact that both Germany and Spain currently have feed in tariff programs offering the equivalent of approximately CAD \$0.51 / kWh, a ~15% premium to that proposed for the new FIT Program. As projects are forced to compete for fewer available dollars, those that present a better economic proposition are the ones receiving funding and right now that puts many European markets ahead of Ontario.

CanSIA would welcome the opportunity to work with the OPA in developing a ground mounted solar PV tariff that more accurately reflects the current economics of the marketplace. In doing so, we believe the FIT Program will be able to kick-start growth in a sustainable industry that will bring Ontario the green jobs it is looking for.

**Conclusion: CanSIA recommends that the OPA increase the proposed tariff for ground mounted solar PV to improve the economic viability of these projects.**

## **3. *Time Limit to Achieve Commercial Operation***

The draft rules for the FIT Program propose that solar PV projects must achieve commercial operation within two years of executing a FIT contract. CanSIA believes this represents an overly optimistic deployment schedule based on the following timelines:

1. **Renewable Energy Approval Process (the “REA Process”)** – Although the Ontario Ministry of Environment’s new REA Process has yet to be finalized, it is expected that solar PV projects will be required to meet more stringent requirements than under the RESOP program. **Estimated Time Required: 6 months.**
2. **Financing Process** – Given the current state of the financial markets, soliciting and closing on equity and debt financings has generally proven a far lengthier and drawn-out process. Even if markets return to normal, these processes would generally take a minimum of 90 days. **Estimated Time Required: 3 – 6 months.**
3. **Construction** – Construction timelines will vary greatly depending on the size of the installation and the mounting technology used. For our purposes we have assumed a 10 MW project with one month of site preparation and one month per megawatt installed. **Estimate Time Required: 11 months.**
4. **Financing Tail** – Lender’s require some margin of error with respect to the targeted commissioning date and the expiry of the FIT contract to allow for construction delays and potential connection issues. **Estimated Time Required: 6 months.**

**Conclusion: CanSIA recommends that the OPA extend the time limit for Solar PV projects to achieve commercial operation to three years, matching that proposed for wind and bio-energy projects.**

#### **4. *Solar PV Project Application Security Fee and Completion & Performance Security Fee***

The draft rules for the FIT Program require an Application Fee of \$20,000 / MW in addition to a Security and Performance Security Fee of \$50,000 / MW at the time of execution of the FIT contract. CanSIA recognizes the intention of the security fees is to validate the commitment of the proponent and the viability of the project. However, we fail to understand why solar PV projects are being assessed higher security fees than those proposed for other technologies. Although the value of the solar PV contract may be greater in absolute dollar value, the projects already require much greater capital investment and currently offer a less compelling financial proposition.

**Conclusion: CanSIA recommends that the OPA reduce the solar PV Application Security Fee and Completion and Performance Security Fee so that solar PV is treated in the same manner as other technologies.**

## B. Roof Top Solar PV Areas of Concern

| Priority | Issue                                 | Impact |
|----------|---------------------------------------|--------|
| 1        | Behind the Meter Settlement           | HIGH   |
| 2        | Residential Solar PV Projects (<10kW) | HIGH   |
| 3        | Ground Mounted Solar PV <500kW        | MEDIUM |
| 4        | Streamline Solar PV Categories        | MEDIUM |

### 1. Behind the Meter Settlement

The draft rules for the FIT Program regarding Behind-the-Meter (“BTM”) settlement require the OPA to pay the generator the FIT rate minus Hourly Ontario Energy Price (“HOEP”) rate for each kWh produced by solar PV (See appendix A). In circumstances where the generator and host customer are not the same entity, this requires the generator to collect the FIT rate from the OPA as well as collect the HOEP revenue from the host customer. This payment structure complicates the transaction structure for the host customer and adds additional financial risk to the generator.

**Conclusion: CanSIA recommends that the OPA designs a streamlined BTM payment structure that is simple and ultimately compensates the generator for the stated FIT tariff rate for each kWh produced by a solar PV system (See appendix B). Under this approach the host customer would be charged the HOEP rate for all electricity consumed, (Green kWh + Brown kWh) \* HOEP rate.**

### 2. Residential Solar PV Projects (< 10 kW)

A number of Ontario homeowners have participated in the previous RESOP program and are now receiving a tariff of \$0.42 / kWh. The main purpose for their participation was purely for environmental and conservation reasons. As the FIT program proposes a substantially increased tariff for Rooftop PV < 10 kW, these early adopters will essentially be economically punished for being proactive and environmentally motivated.

CanSIA wishes to stress the importance of support among early-adopters in any new government program. These early adopters will play an instrumental role in promoting the MicroFIT program through word-of mouth advertising and viral marketing. Limiting these individuals from benefiting from the new program tariff increase will significantly affect up-take within the MicroFIT Program and hinder the ability of the program to achieve the targeted number of solar roofs and associated job creation.

**Conclusion: CanSIA recommends that all solar PV projects < 10 kW that are currently contracted under the RESOP receive the new FIT Program tariff of \$0.802 / kWh.**

### **3. *Ground Mounted Solar PV < 500 kW***

The FIT Program has failed to recognize that ground mounted solar PV can occur for projects greater than 10 kW and less than 500 kW while still serving the same intentions as a rooftop solar PV system. Smaller scale ground mounted systems may be the logical option for building owner that does not have the proper roof structure or building location that is solar PV accessible. These systems would still largely provide load displacement features.

**Conclusion: CanSIA recommends that the OPA create a category for small scale ground mounted solar that retains the same tariff rates as the roof top solar PV.**

### **4. *Streamline Solar PV Categories***

The draft rules for the FIT Program propose that solar PV rooftop tariffs are subdivided into 4 tranches. For small and mid-size commercial and community projects between 100 kW and 500 kW, having two separate tranches that separate at 100 kW may confuse solar PV adopters and delay scale-oriented price decreases that will bring meaningful distributed generation online throughout Ontario.

**CanSIA recommends that the OPA combine two tranches into one by establishing a new tariff rate of \$0.674 / kWh for projects between 10 kW and 500 kW.**

## C. Other Areas of Concern

| Priority | Issue  | Impact |
|----------|--|--------|
| 1        | Inclusion of Roof Top Solar Thermal into the FIT Program                   | HIGH   |
| 2        | Release All Information Pertaining to Development of Solar PV Tariff Rates | HIGH   |
| 3        | Consumer Price Index Adjustment  | MEDIUM |
| 4        | Domestic Content Requirement   | MEDIUM |

### 1. Inclusion of Roof Top Solar Thermal into the FIT Program

Solar thermal technology has been excluded from the FIT program draft rules. The reasoning behind this exclusion is not entirely clear. There is ample evidence that reveals that solar thermal technology is not only technically viable in the Province, as evidenced by numerous residential and commercial projects in operation, but commercially viable with proper incentives and policy supports.

Furthermore, production based incentives for solar thermal, though not widely implemented, are currently available in other jurisdictions, such as Arizona (through Arizona Public Service). While incentives are currently available through the Federal ecoEnergy for Renewable Heat program and the Ontario Solar Thermal Heat Initiative, both programs have recently scaled back their levels of support. Stagnation in natural gas prices have also impeded on short-term market development. Along with up-front subsidies currently in place, solar thermal can be more complementarily supported if included in a production incentive program such as the OPA FIT program.

**Conclusion: CanSIA recommends the OPA include roof top solar thermal into the FIT program.**

### 2. *Release All Information Pertaining to the Development of Solar PV Tariff Rates*

CanSIA recognizes the OPA price model used solar PV project cost assumptions to determine solar PV tariff rates. It is CanSIA's understanding that these assumptions were in part based on research conducted on the Ontario solar market. We believe that, in the spirit of transparency, all relevant reports and models should be released to the public.

**Conclusion: CanSIA recommends that the OPA release the Navigant and all other reports regarding the Ontario solar market and provide a working version of the OPA's price model.**

### **3. *Consumer Price Index Adjustment***

The draft rules for the FIT Program allow for all renewable energy technologies other than solar PV to qualify for Consumer Price Index (“CPI”) adjustments on the FIT tariff.

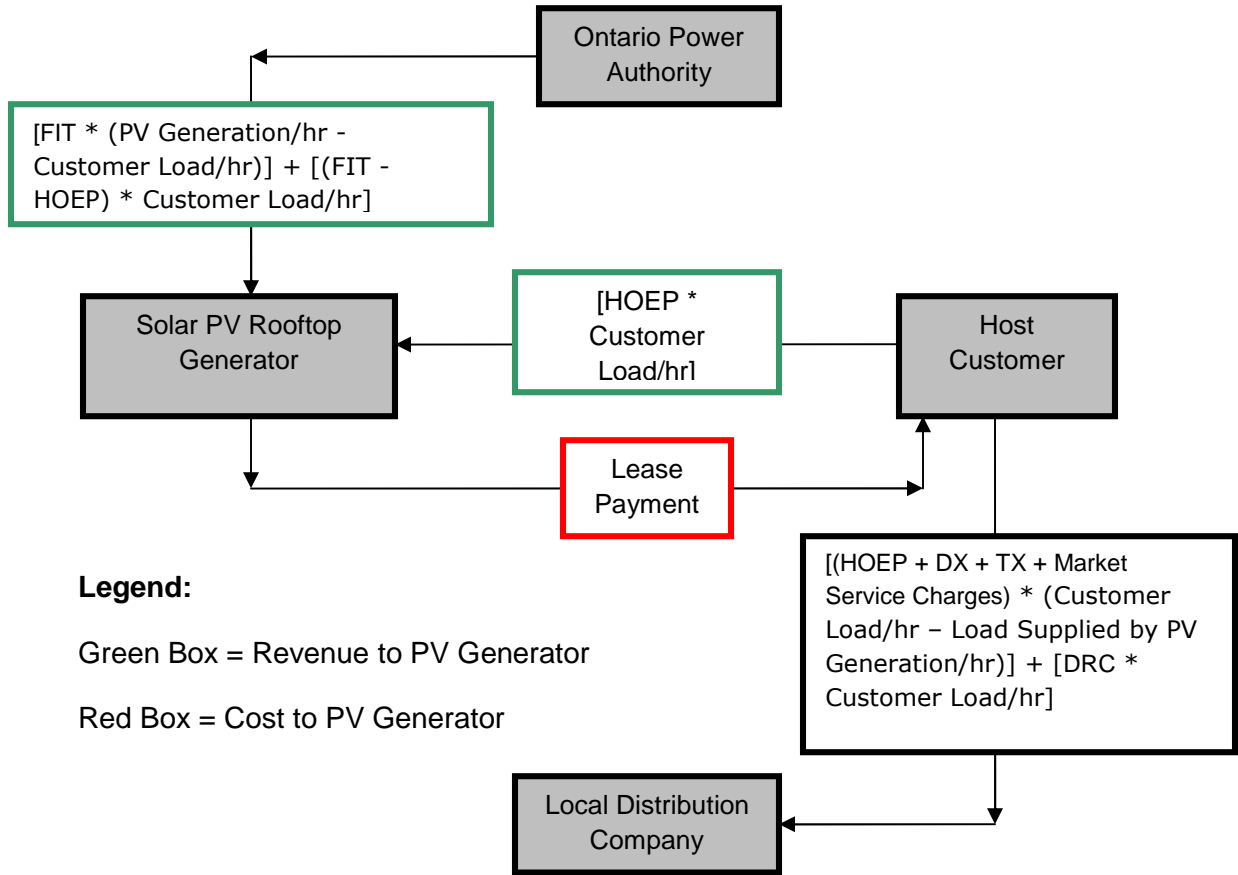
**Conclusion: CanSIA recommends that the OPA allow all solar PV tariffs to qualify for CPI adjustments such that Solar PV is treated in a manner similar to other technologies.**

### **4. *Domestic Content Requirement***

It has yet to be determined whether the Ministry of Energy and Infrastructure will require the OPA to impose a domestic content requirement for renewable energy projects under the proposed FIT Program. Should the OPA be directed to include this provision, CanSIA recommends that the OPA revise the solar PV tariff schedule to adjust for potential cost increases as the OPA suggested was reasonable during the opening consultation session on March 17<sup>th</sup>, 2009.

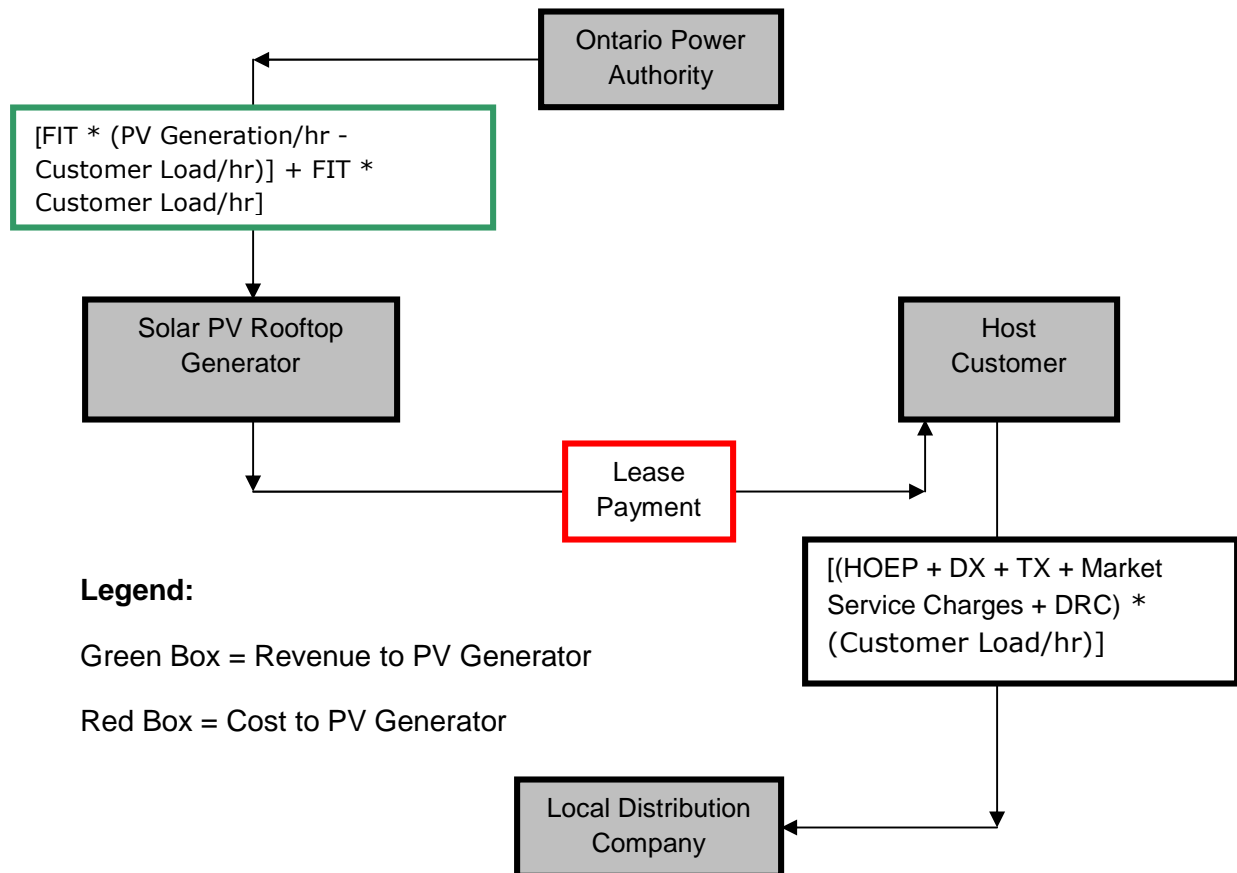
**Conclusion: CanSIA is not averse to reasonable domestic content requirements for renewable energy projects provided that the FIT Program rates are adjusted to maintain the economic viability of the projects in question.**

**Appendix A: Behind the Meter Revenue and Cost Flows (FIT Program Draft 2009)**



**Note:**  
**Savings to Customer =  $[(DX + TX + Market\ Service\ Charges) * Load\ Supplied\ by\ Generation]$**

**Appendix B: Behind the Meter Revenue and Cost Flows (CanSIA Proposal 2009)**



**Notes:**

Implications to LDC and OPA

- DX, TX, DRC and Market Service income is preserved
- Removes host customer from settlement; avoid third-party breach of contract
  - Simplifies settlement and reduces administrative costs

Implications to Host Customer

- No change to DX, TX, DRC and Market Service payments
- Benefits of solar PV are negotiated between Host Customer and Generator

Implications to PV Generator

- Removes host customer from settlement; reduces project risk
- Improves unit economics and motivates more rapid deployment of PV and jobs