



COMMUNICATION – C13

ITEM 2

**Committee of the Whole
(Public Hearing)**

September 15, 2020

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TORONTO, ONTARIO, CANADA M5V 3C7

Reply to:
Direct Line:
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September 4, 2020

EMAIL (clerks@vaughan.ca)

Committee of the Whole
City of Vaughan
Office of the City Clerk
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1

Attention: Mayor Bevilacqua and Members of Council

Dear Mayor Bevilacqua and Members of Council,

RE: Zoning By-law Amendment (File Z.19.039) and Official Plan Amendment (File OP.19.015) for 7887 Weston Road

PSI Solar Finance 1 Limited Partnership ("**we**", "**us**", or "**our**", as appropriate) holds a Solar Generation Lease Agreement with Home Depot Holdings Inc., which permits the operation of solar generation equipment on the roof of the building located at 140 Northview Boulevard in the City of Vaughan (the "**Property**") and the corresponding supply of such solar electricity to the Independent Electricity System Operator pursuant to a feed-in-tariff contract ("**FIT Contract**") with a term over 20 years (the "**Solar Energy System**").

The Property is located on the north side of Northview Boulevard, south of Chrislea Road and immediately east of and adjacent to 7887 Weston Road (the "**Development Property**"). Wedgewood Columbus Limited (the "**Owner**") has submitted applications to permit a high-rise mixed-use development comprised of 4 mixed-use buildings with heights ranging from 40 to 49-storeys on the Development Property (the "**Redevelopment**").

On May 14, 2020, our solicitors submitted a letter on our behalf (the "**Submission**") to the City of Vaughan's Committee of the Whole (the "**Committee**", "**you**" or "**your**", as appropriate) describing the serious concerns that we have about the proposed Redevelopment and the anticipated negative impacts that it is projected to have on our Solar Energy System. On August 18, 2020, our solicitors hosted a phone call with Margaret Holyday, the City of Vaughan Senior Planner managing the file, and Chrisa Assimopoulos, the City of Vaughan Urban Planner involved in the file (the "**Call**"). We are submitting this letter to provide additional information that may assist Council's decision and to respond to questions raised by Ms. Holyday and Ms. Assimopoulos on that Call.



1. The Solar Energy System generates power that goes into the public grid.

We confirm that the power generated from the Solar Energy System goes into the electricity distribution system (the “**Grid**”).

2. The FIT Contract is part of a greater program promoting a sustainable and healthy future for residents of Ontario.

Over the past decade, governments around the world have heightened their efforts to transition toward low-carbon economies through the use of renewable energy sources such as solar power. Feed-in tariff programs represent a major initiative in this effort by the Province of Ontario.

As you may know, Canada has the largest footprint in the world for annual home electricity use, and Ontario represents 27% of Canada’s electrical usage. In light of these dire statistics, the Province of Ontario introduced a feed-in-tariff program (the “**Ontario FIT Program**”), which was the first of its kind in North America. It represents a major initiative in the effort to encourage and promote greater use of renewable energy sources for electricity generating projects, to allow for a sustainable and healthy future.

The Ontario FIT Program is a comprehensive guaranteed pricing structure for renewable electricity production, offering stable prices under long-term contracts. Under the Ontario FIT Program, a participant with an approved renewable energy project (such as PSI Solar Finance 1 Limited Partnership) will enter into a contract with the provincial power authority (such as the Independent Electrical System Operator) to supply the electricity generated from the renewable energy project to the Grid.

3. Annually, the Solar Energy System produces ~593,600 kilowatt-hours of energy.

As you may be aware, watts are a measure of power and each kilowatt is equal to 1,000 watts. A kilowatt-hour differs from a kilowatt in that it measures the amount of energy a certain machine needs to run for one hour. For example, a 1,500 watt electric heater requires 1,500 watts (or 1.5 kW) to operate. If you run that electric heater for one hour, you will have used up 1.5 kilowatts of energy, or 1.5 kilowatt-hours.

593,600 kilowatt-hours equate to nearly 63 Ontario average households’ electricity usage for a full year.

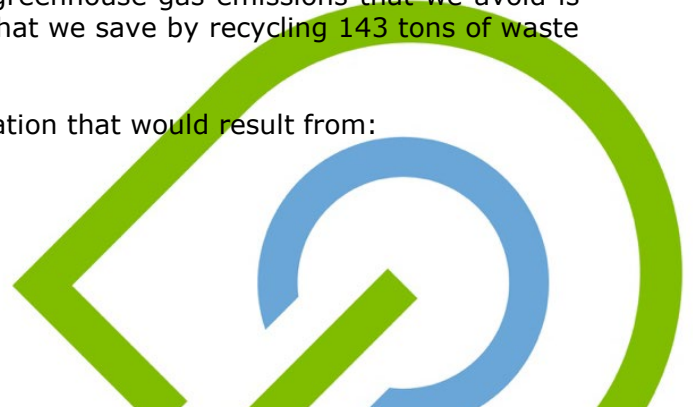
Every year, by producing those 593,600 kilowatt-hours through a renewable energy source, as opposed to a greenhouse gas emitting energy source, we save:

- the carbon dioxide emissions from 462,451 pounds of coal burned,
- the carbon dioxide emissions of 41,228 gallons of diesel consumed,
- the carbon dioxide emissions from 57,226 gallons of gasoline consumed, or
- the carbon dioxide emissions from 972 barrels of oil consumed.

For each year that 594,600 kilowatt-hours of energy is produced through a renewable source in lieu of greenhouse-gas emitting sources, the greenhouse gas emissions that we avoid is the equivalent of the greenhouse gas emissions that we save by recycling 143 tons of waste rather than sending it to a landfill.

It also equates to the amount of carbon sequestration that would result from:

- 548 acres of forests in one year, or
- growing 6,940 seedlings for 10 years.



4. There are approximately 14 years (a potential 8,310,000 kilowatt-hours) remaining on the FIT Contract.

Our FIT Contract covering the Solar Energy System has a 20-year term that will expire on July 16, 2034. Thus, there are approximately 14 years remaining on the FIT Contract, during which time the Solar Energy System is expected to generate 8,310,000 kilowatt-hours.

5. If approved, the shadowing that would result from the Redevelopment will severely reduce the amount of renewable energy that may be produced by the Solar Energy System.

If approved as proposed, the Redevelopment will materially impact the generation of renewable electricity by the Solar Energy System. As noted in our Submission, the Sun/Shadow Impact Study prepared by Quadrangle and dated December 20, 2019, shows that all four Towers (being Towers A, B, C and D per Figure 4 of the Planning and Urban Design Rationale report prepared by Bousfields Inc. and dated December 2019, attached hereto as **Schedule "A"**) will block sunlight from the Solar Energy System during key periods. For example, the months of March through to September may represent only 58% of the calendar year, however the sunlight emitted during that time period generates over 70% of the Solar Energy System's production. If built as proposed, the Redevelopment would make it so that the Solar Energy System will be in shadow beginning around 2:00PM in the months of March and September. This will significantly limit the amount of renewable energy that it is able to generate.

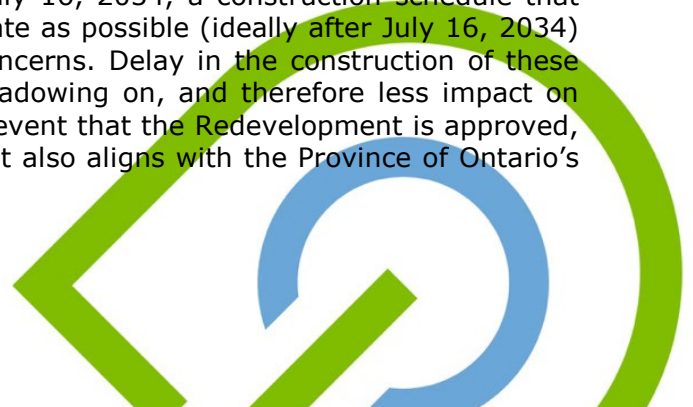
Our engineers estimate that between 276,000 and 289,000 of kilowatt-hours (and accordingly between \$175,000 and \$183,000 in revenues) will be lost annually following construction of Towers A and B. We note that these projections already account for standard degradation of solar panels.

6. Phasing construction such that the towers with more shadow impact are erected in later years would help to mitigate the negative impacts on this renewable energy project.

Together with amendments to the Redevelopment as set out in the Submission, it is respectfully submitted that phasing construction of the Redevelopment such that towers with more shadow impact (i.e., Towers A and B) would be erected later than those with less shadow impact (i.e., Towers C and D) could prove to be hugely beneficial in reducing the negative impacts of the Redevelopment on the Solar Energy System.

In the event that Towers A and B were erected in just five years (meaning by the end of 2025), our total lost production over the remaining life of the FIT Contract is estimated to be approximately 4,105,500 kilowatt-hours. Should Towers A and B be erected in 10 years (meaning by the end of 2030), our total lost production over the remainder of the FIT Contract would be estimated at 1,397,500 kilowatt-hours.

Given that the FIT Contract will terminate on July 16, 2034, a construction schedule that contemplates Towers A and B being erected as late as possible (ideally after July 16, 2034) would go a long way towards addressing our concerns. Delay in the construction of these towers would mean that there would be less shadowing on, and therefore less impact on productivity of, the Solar Energy System. In the event that the Redevelopment is approved, this solution would not only be very effective, but also aligns with the Province of Ontario's



mandate to support a sustainable future through the promotion of renewable energy sources for electricity.

Thank you for giving your time and consideration to this important matter. We would also like to note that Dawit Mehari (Director of Operations) and I will virtually attend the public meeting to be held on September 15, 2020 to address any additional questions you may have. Otherwise, if you have any questions, please do not hesitate to contact me.

Yours truly,

Ginger Ellison

Senior Legal Counsel

Cc: Margaret Holyday

Land Use Planner, Development Planning Department, City of Vaughan



**SCHEDULE "A" –
Figure 4 of the Planning and Urban Design Rationale report
prepared by Bousfields Inc. and dated December 2019**

(Please see attached.)





Figure 4 - Site Plan