

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 27, 2017

Item 6, Report No. 26, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on June 27, 2017.

**6 ESA DEVIATION REQUEST FORM FOR SOLAR PANEL PROJECTS
 ALL WARDS**

The Committee of the Whole recommends:

- 1) That the following be approved in accordance with Communication C20 from the Deputy City Manager, Community Services and the Manager, Facility Maintenance Services, dated June 20, 2017:**
 - 1. That the report of the Deputy City Manager, Community Services and the Manager of Facility Maintenance Services contained in the Committee of the Whole agenda of June 20, 2017 as Item #6, be received.**

Recommendation

The Deputy City Manager, Community Services and the Manager of Facility Maintenance Services in consultation with Legal Services, Office of the City Solicitor recommend:

1. That the City Clerk be authorized to execute the ESA Rodent Deviation Request form for the solar panel projects as advised by Alectra Utilities (Attachment 1).

Contribution to Sustainability

This report is consistent with the priorities in the Green Directions Vaughan, Community Sustainability Environmental Master Plan, 6.1:

To fully support the implementation of Green Directions at all levels of City operations.

Economic Impact

There are no financial implications for the Corporation resulting in authorizing the City Clerk to execute the agreement.

Communications Plan

None.

Purpose

The purpose of this report is to seek Council approval to authorize the City Clerk to execute the ESA Rodent Deviation Request form for the solar panel projects.

Background - Analysis and Options

At the February 21, 2017 meeting, Council awarded tender T16-464, Roof upgrade for installation of solar panels at six (6) community centres, Chancellor CC, Father Ermanno Bulfon CC, Maple CC, Dufferin Clark CC, Garnet A. Williams CC, and North Thornhill CC.

The Roof upgrade for installation of solar panels at the six (6) community centres, Chancellor CC, Father Ermanno Bulfon CC, Maple CC, Dufferin Clark CC, Garnet A. Williams CC, and North Thornhill CC project consists of the repair and upgrade of the roofs. The City is working in partnership with Alectra Utilities for the installation of solar arrays on the rooftops of the community centres.

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The work to repair and/or replace roofs at these locations is required as a result of the roof assessments conducted in 2016 and to meet the requirements of the solar installations overall. The project will strengthen the City's commitment to environmental stewardship as once installed, arrays are projected to generate an estimated 850 kW of energy per year to the Alectra grid and approximately \$47,750 in annual lease payments to the City.

The Electrical Safety Authority (ESA) passed rule 64-210(5) to protect roof top solar arrays from rodents. Rule 64-210(5) requires mechanical protection against rodents for PV source circuit conductors on or above a building, where the dc arc-fault protection (when required) is not located at the module. The problem largely exists with residential installations however the rule applies to all rooftop installations. Alectra has determined that there is no commercially viable solution for tilted arrays on commercial rooftops. In Alectra's 88 rooftop installations they have had only one incidence of rodent damage and that was to a sensor wire used to monitor the solar generation. ESA will grant an exemption to the rule but Alectra must have the owner sign a deviation form to ensure they are aware of the exemption. There is no solution to this issue that would leave Alectra's solar installations economically viable. The Electrical Safety Authority allows the exemptions to commercial installations because the risk of rodent damage is very small in these cases.

Alectra's solar systems will be remotely monitored to effectively manage the safe operation of the systems. Alectra's solar systems are fully insured as per the lease agreement with the City of Vaughan and nothing changes in regard to risk to the City of Vaughan.

Alectra is asking all Shareholders, City of Vaughan, City of Barrie, City of Markham and City of Hamilton to sign the rodent deviation request form for their hosted FIT 4 solar rooftop projects.

The alternatives available would be for Council to recommend that Alectra be required to install rodent protection, however this is not seen as a viable option, as Alectra Utilities have indicated this is not economically feasible and would cause them to cancel the projects in Vaughan.

Relationship to Term of Council Service Excellence Strategy Map (2014-2018)

This report supports the following priorities set forth in the Term of Council Service Excellence Strategy Map (2014-2018):

- Invest, renew and manage infrastructure and assets.
- Continue to cultivate an environmentally sustainable City.

Regional Implications

None.

Conclusion

Staff recommends the City Clerk be authorized to execute the ESA Rodent Deviation Request form for the solar panel projects as advised by Alectra Utilities.

Attachments

1. ESA Application for Rodent Deviation Request - City of Vaughan
2. City of Vaughan - Facility List

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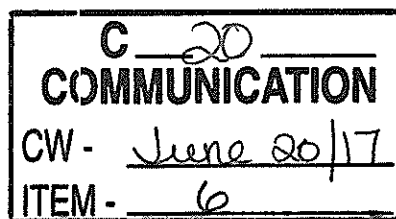
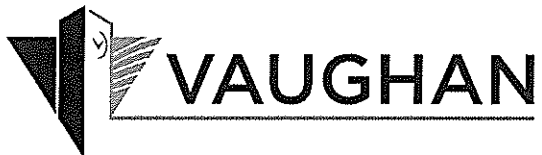
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Report prepared by:

Dave Merriman, Manager, Facility Maintenance Services, Ext. 8296

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)



DATE: JUNE 19, 2017

TO: MAYOR AND MEMBERS OF COUNCIL

FROM: MARY REALI, DEPUTY CITY MANAGER, COMMUNITY SERVICES
DAVE MERRIMAN, MANAGER, FACILITY MAINTENANCE SERVICES

RE: COMMUNICATION – COMMITTEE OF THE WHOLE – JUNE 20, 2017
ESA DEVIATION REQUEST FORM SOLAR PANEL PROJECTS – ALL WARDS
ITEM# 6

Recommendation

The Deputy City Manager, Community Services and the Manager of Facility Maintenance Services recommend:

1. That the report of the Deputy City Manager, Community Services and the Manager of Facility Maintenance Services contained in the Committee of the Whole agenda of June 20, 2017 as Item #6, be received.


Background - Analysis and Options

Alectra Utilities had requested, as part of awarded tender T16-464, roof upgrade for installation of solar panels at six (6) community centres, Chancellor CC, Father Ermanno Bulfon CC, Maple CC, Dufferin Clark CC, Garnet A. Williams CC, and North Thornhill CC, that all Shareholders sign the rodent deviation request form for their hosted FIT 4 solar rooftop projects, currently on the agenda of the Committee of the Whole, June 20, 2017 meeting, Item #6.

On Monday, June 19, 2017 Alectra Utilities has advised the City that Alectra has found a technical solution to satisfy ESA Rule 64-210(5) and will therefore no longer require the Municipality to execute the Rodent Deviation Request Form.

Therefore, staff are requesting that the matter be withdrawn and the report of the Deputy City Manager, Community Services and the Manager of Facility Maintenance Services, dated June 20, 2017, be received.

Respectfully submitted,



Mary Réali
Deputy City Manager, Community Services



Dave Merriman
Manager, Facility Maintenance Services

**ESA DEVIATION REQUEST FORM FOR SOLAR PANEL PROJECTS
ALL WARDS**

Recommendation

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The work to repair and/or replace roofs at these locations is required as a result of the roof assessments conducted in 2016 and to meet the requirements of the solar installations overall. The project will strengthen the City's commitment to environmental stewardship as once installed, arrays are projected to generate an estimated 850 kW of energy per year to the Alectra grid and approximately \$47,750 in annual lease payments to the City.

The Electrical Safety Authority (ESA) passed rule 64-210(5) to protect roof top solar arrays from rodents. Rule 64-210(5) requires mechanical protection against rodents for PV source circuit conductors on or above a building, where the dc arc-fault protection (when required) is not located at the module. The problem largely exists with residential installations however the rule applies to all rooftop installations. Alectra has determined that there is no commercially viable solution for

tilted arrays on commercial rooftops. In Alectra's 88 rooftop installations they have had only one incidence of rodent damage and that was to a sensor wire used to monitor the solar generation. ESA will grant an exemption to the rule but Alectra must have the owner sign a deviation form to ensure they are aware of the exemption. There is no solution to this issue that would leave Alectra's solar installations economically viable. The Electrical Safety Authority allows the exemptions to commercial installations because the risk of rodent damage is very small in these cases.

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Conclusion

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Attachments

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2. City of Vaughan - Facility List

Report prepared by:

Dave Merriman, Manager, Facility Maintenance Services, Ext. 8296

Respectfully submitted,

Mary Reali
Deputy City Manager, Community Services

Dave Merriman
Manager, Facility Maintenance Services



www.esasafe.com

FOR TECHNICAL ADVISOR USE ONLY

Office Use: Form #

Date Received:

TA:

Deviation Request Form

Please complete all sections and submit via fax or mail to the above address.

Applicant Information:

Please Type or Print Clearly

Name: Quigley Derek
(Family/Last Name(s)) (Middle Initial) (First Name(s))
 Company Name: Alectra Energy Solutions Email: derek.quigley@alectrasolutions.com
 Address: 161 Cityview Boulevard Vaughan Ont. L4H 0A9
(Street) (City) (Province) (Postal Code)
 Contact Number: Work: 905-417-6900 x31264 Cell: 705-794-3424 Fax: 905-532-4616

Site Information:

Address: Various - See attached facility list Vaughan Ont.
(Street) (City) (Province) (Postal Code)
 Type of Building: ☒ Commercial/Industrial ☐ Institutional ☐ Residential ☐ New Building ☐ Addition ☐ Renovation
 Business Name: City of Vaughan Service Voltage / Amps: See attached facility list
 Owner/Tenant Name: Barb McEwan, City Clerk Signature: _____ Date: _____
 Address of Owner: 2141 Major Mackenzie Drive Vaughan Ont. L6A 1T1
(Street) (City) (Province) (Postal Code)

Electrical Inspection Notification Number:

Details of Deviation Request:

OESC Rule Number: Rule 64-210(5)
(Section - Rule #)
 Description of Deviation:
Seeking a deviation of rule 64-210(5) requiring mechanical protection against rodents for PV source circuit
conductors on or above a building, where the dc arc-fault protection (when required) is not located at the module.
 Reason and Circumstances for Deviation:
No commercially viable product on the market for a tilted racking solution on a flat roof.
Building is of non-combustible construction, and it does not contain a dwelling unit below the roof line.
The Owner is aware of deviation request.
 Alternative Measures Proposed to Satisfy Code Intent:
Solar array will be monitored and inspected as per standard Alectra maintenance program. Arc Fault Protection and
Rapid Shut-Down design features will mitigate potential rodent issues.

Date

Signature of Applicant

OFFICE USE ONLY

☐ Deviation Granted ☐ Deviation Granted with Conditions ☐ Deviation Declined

Comments:

Note: Deviation applies to this installation only.

Technical Advisor Signature

Title

Date

BY SUBMITTING PERSONAL INFORMATION TO THE ELECTRICAL SAFETY AUTHORITY, OR ITS AGENTS AND SERVICES PROVIDERS, YOU AGREE THAT ESA MAY COLLECT, USE AND DISCLOSE SUCH PERSONAL INFORMATION IN ACCORDANCE WITH ITS PRIVACY POLICY, APPLICABLE LAWS OR PURSUANT TO OUR ADMINISTRATIVE AGREEMENT WITH THE PROVINCE OF ONTARIO. If you provide us with information on behalf of another individual, you represent that you have all necessary authority and/or have obtained all necessary consents from such individual to enable us to collect, use and disclose such personal information for the purposes set forth in our Privacy Policy. A copy of our policy is located on our website at www.esasafe.com.

City of Vaughan Facility List

#	Address	City	Building	Service Voltage	Service AMPS
1	10190 Keele Street	Vaughan	Maple C.C.	600	2000
2	501 Clark Avenue West	Vaughan	Garnet A. Williams C.C.	600	1200
3	1441 Clark Avenue West	Vaughan	Dufferin C.C.	600	800
4	350 Ansley Grove Road	Vaughan	Chancellor C.C.	600	600
5	8141 Martin Grove Road	Vaughan	Father Ermanno Bulfon C.C.	600	800
6	300 Pleasant Ridge Avenue	Vaughan	North Thornhill C.C.	600	1600