

Details of Amendment

Definition (Solar Collector)

In 2011, Zoning Bylaw 12800 was amended to include definitions for several different renewable energy devices, including *Solar-electrical (PV)* and *Solar Thermal*. However, in an effort to simplify land-use regulations and in consideration of the likeness in size, appearance and use of Solar-electrical (PV) and Solar Thermal devices, the amendment proposes to consolidate the existing definitions under a new 'Solar Collector' definition.

Projection into Setbacks

Zoning Bylaw 12800 currently allows cantilevers and architectural features such as eaves, shade projections and fireplaces to project 0.6 metres into a required setbacks of 1.2 metres or greater. Where a projection extends into an interior side setback, the length of the projection shall not exceed 3.1 metres. In the case of more than one projection in an interior side setback, the cumulative length of projections shall not exceed one third of the length of the side wall, excluding attached garage walls.

The amendment proposes similar projection restrictions for solar collectors in interior side setbacks in zones where the permitted building height of 12.0 metres or less. These parameters provide sufficient allowances to enable the installation of wall mounted solar collectors, while ensuring interior side yards remain functional and a reasonable building size/mass is maintained. Mirroring existing regulations has the added benefit of providing the assurance of familiar development outcomes for neighbours.

To encourage solar-integrated building design and increase opportunity to capture the sun's radiant energy, a 1.5 metre allowable projection into front setbacks, rear setbacks and flanking side setbacks in zones where the permitted building height of 12.0 metres or less is proposed. In zones where the permitted building height is greater than 12.0 metres, a 1.5 metre projection into all required setbacks is proposed. Allowing solar collectors to project further into setbacks will enable solar collectors to achieve optimal energy output levels and incentivize integrated solar collector design. For example, external window sunshades are an effective method of controlling a buildings internal climate by maximizing solar heat gain in the winter, and minimizing it in the summer. Sunshades that incorporate solar collectors can also serve a dual purpose by converting the sun's energy into electricity.

Height Restriction

Through public consultation, stakeholders expressed concern with the potential for shading and increased appearance of building mass and height as a result of roof mounted solar collectors. As a result, the amendment proposes modest projections from a roof that generally fit within the allowable building envelope.

In zones with a smaller permitted building envelope (zones with a permitted building height of 12.0 metres or less), regulations are most restrictive in recognition that potential shadowing and massing impacts are greater at this scale of development. As a result, the amendment limits the projection of roof mounted solar collectors to 0.5 metres within 2.0 metres of a building façade, 1.5 metres from all other roof surfaces and less than the permitted ridge height in a zone or overlay. In addition, roof mounted solar collectors are not permitted to extend beyond the outermost edge of the roof.

In zones with a larger building permitted building envelope (zones with a permitted building height of greater than 12.0 metres), regulations provide greater flexibility to install solar collectors by permitting a projection of 1.5 metres on all roof surfaces, provided they do not extend beyond the outermost edge of the roof.

Development Permit Exemption

Recognizing the strategic importance of solar energy and in anticipation of growing public interest in installing solar energy technologies, providing a client-centered approach to making the installation of building-mounted solar energy systems as efficient as possible is imperative. By appropriately addressing potential impacts on neighbouring properties through the establishment of projection and height limit regulations. A development permit exemption for roof mounted solar collectors in low-density residential zones provides an opportunity to remove administrative barriers and incentivize the deployment of solar collectors.