July 20, 2020

MEMORANDUM
Statement to the Zoning Commission

Re: Proposed Text Amendment 19-21—Exhibit 34
By: Guillermo Rueda, AIA

Summary Analysis 19-21

The expansion of protections for rooftop solar in Residential (R) zoning districts is welcome, especially in light of the District's sustainable energy commitments. With 19-21, the Office of Planning rightly clarifies that new construction is not exempt from respecting existing solar energy production on adjacent buildings.

The regulatory language for protected solar energy systems and the threshold for their interference (as currently written in ZR-16) is clear. While disagreement exists on whether Special Exception relief is currently available in the regulations to allow interference with abutting solar energy systems, it is significant that since implementation of Text Amendment 14-11, not one request has been made to the BZA to seek relief to exceed the imposed 5 percent interference mark.

Concerns

However, the newly proposed Special Exception language of 19-21 to allow interference with solar energy production uses overly broad and subjective language that needs refinement to better balance the interests of development and DC's renewable energy mandate. Amendment language should be quantifiable and establish an understood maximum limit of possible interference. This would continue to encourage investment in rooftop solar without unduly blocking by-right development efforts.

If Special Exception relief is to be considered to allow shading that impedes solar energy production, it should be clearly stated as part of the language of E-206.4 or separated from the language of relief for Architectural Rooftop Elements (a new section, E-206.5). Similarly, it should be clear how solar shading is considered in Special Exception relief requests for height as well as for proposed by-right construction. However, the currently proposed language is discretionary and imprecise. It is confusingly included as part of the proposed language for relief under E-5207 for Architectural Rooftop Elements.

Proposed Adjustments

Simple changes to the language of 5207.2 could yield powerful results by providing guidance to those who seek relief from solar standards and those who consider the investment in rooftop solar energy production. Standards could be described based on the available by-right development in comparison to the height of the abutting solar property. The result would increase available by-right construction and prevent the use of solar protections to block potential adjacent by-right development and would clearly establish the risk of potential loss from shading to residents who seek to invest in solar energy power.[1]

[1] Current return on Investment for purchased (as opposed to leased systems) rooftop solar systems in DC breaks even in the 6-8-year range. 25-30% maximum allowed shading is recommended to balance by-right development pressure against a scenario (as proposed by OP) that would leave open the allowable

For example, height increases where story counts between abutting properties are equal could be approved for up to 10% shading; for projects where additional by-right stories could be added, these would be limited up to a total of 20% shading; and, where by-right differences between properties would result in 2 or more additional stories, shading could possibly be approved up to 30%. In this scenario, penthouses would be considered as additional stories and their interference with solar considered as part of their Special Exception relief.

Although a ceiling of 10-30% interference could be applied broadly to any application, stratifying the allowable shading as recommended in the following substitute language for 5207.2 would codify a maximum limit of allowable interference by story of available by-right envelope and reinforce that interference should only be considered where by-right development has clearly demonstrated that they have attempted to minimize the interference.

In any case, as an investor in rooftop solar, I believe the proposed changes to the regulations are significant enough to require the Zoning Commission to grandfather (exempt from 19-21) those existing solar energy systems accepted by DCRA prior to adoption of the proposed rule due to the significant risk of loss imposed by the proposed text amendment.

Recommended Language for 5207.2

5702.2. The Board of Zoning Adjustment may grant relief from the requirements of Subtitle E § 206.3 as a special exception pursuant to Subtitle X, Chapter 9, and subject to the following conditions:

(a) The Board may consider increases in shading on an abutting solar energy system above the maximum allowed, where the proposed construction:

(1) does not increase the story count, up to 5% additional shading;
(2) seeks to add a by-right story or penthouse, up to 15% additional shading;
(3) seeks to add two or more by-right stories, up to 25% additional shading

(b) The application demonstrates the applicant has made its best efforts to minimize and mitigate the potential shading impact to solar energy systems on abutting properties to the extent reasonably practical, including possible design alternatives to the application's proposed construction and potential solar access easements.

(c) The application shall include illustrations *that compare the proposed zoning height of the applicant property with that of the affected solar energy system property(ies)* and of the shading impact ~~on solar energy systems on abutting properties:~~

(1) As proposed by the application;
~~(2) As allowed as a matter of right; and~~
(2) Of possible design alternatives considered by the applicant; and

(d) The Board may require special treatment and impose reasonable conditions as it deems necessary to mitigate shading impacts identified in the consideration of the application.

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interference and further extend the payback period or potentially nullify an investment in solar energy. This would have a chilling effect on continued investment in rooftop solar.