

Cathy Flynn

From: chuck.lenhart@comcast.net
Sent: Wednesday, July 08, 2020 3:55 PM
To: Cathy Flynn
Cc: ray@botticelliandpohl.com
Subject: Solar Panel Code Info
Attachments: 20200708145322482.pdf

Hello Cathy

I researched the code implications for the placement of Solar Panels and the required setbacks for panels from roof edges. This is the information I have to share with the board.

The IRC 2015 Code has specific code references and requirements that required a 36" clear setback on all edges of solar panels for emergency services access. These requirements have been replaced by Mass Amendment R324.3 that eliminates the larger setback. This amendment is attached along with the excerpts from the two structural evaluations that can be viewed in the links below.

The setback requirement is exempted but safe structural considerations are not. The two attachments below are structural evaluations for solar panels on roofs and both have the same conclusion. Due to uplift caused by wind the panels should be set back from the edge a minimum of 10" to prevent failure in high wind conditions.

1) Slide show from SEIA:

<https://www.seia.org/sites/default/files/Cain%20and%20Banks%20ASCE%207-16%20Wind%20for%20PV%20Parallel%20to%20Roof%20Presentation%20-%20SEAOC%202016%20Convention.pdf>

2) PV permit Guidelines - Pg 17 deals with the

setbacks [https://www.dvrpc.org/solar/pdf/Structural Commentary for the National Simplified Residential Roof Photovoltaic Array Permit Guidelines 2017-06-03.pdf](https://www.dvrpc.org/solar/pdf/Structural%20Commentary%20for%20the%20National%20Simplified%20Residential%20Roof%20Photovoltaic%20Array%20Permit%20Guidelines%202017-06-03.pdf)

This is the information on best practices and is where the code is headed for mounting of panels. Given the high winds Nantucket is subjected to and the further predictions of weather unpredictability, we are erring on the side of caution and best practice, vs "aesthetics," by leaving **at least 10"** on the edges.

I hope the board finds this helpful.

Sincerely

Chuck Lenhart