

To: Select Board, Arlington, MA

From: Proponents of Warrant Article 79 (submitted by Susan R. Doctrow)

February 17, 2021 (updated from March 18, 2020 version)

Re: "A resolution to encourage clean energy [submitted as "energy efficient and/or sustainable energy"] installations in historic districts"

Introduction: This Warrant Article was submitted by 17 registered voters, with Sustainable Arlington officially voting its support (2/26/2020 meeting). Many of us love our town's historic architecture and are glad that the Arlington Historic Districts Commission (AHDC) exists to preserve existing houses as well as to ensure that new construction in the historic districts has a harmonious style. We respect the AHDC review process and its role in protecting historic buildings that, to many of us, are beautiful. Furthermore, we recognize and appreciate that the AHDC has allowed solar panels and other clean energy installations in numerous instances. Nonetheless, some such projects are not allowed, primarily or exclusively on aesthetic grounds. With the urgency of the climate crisis, we believe that denying any homeowners the option of installing solar panels, and/or other clean energy technologies, that are technically feasible for their homes and do not irreversibly alter historic architectural details, is inconsistent with Arlington's leadership as a green community and the town goal of carbon neutrality by 2050.

Note: This memo was originally written in 2020, prior to cancellation of the hearing on this and other non-essential Articles for the 2020 regular Town Meeting. Subsequently, the proponents agreed to postpone its consideration for the 2020 virtual Special Town Meeting to help facilitate logistics necessitated by the pandemic. New information has come to our attention over the past year, and we have added updates to this memo, as indicated by "Update" and red font.

Warrant Article: [as submitted] "To see if the Town will vote to urge the Arlington Historic Districts Commission to allow installation in the Historic Districts of any solar panel, heat pump, or other energy-efficient technology that does not cause irreversible changes to historic features or materials, or to take any action related thereto." We suggest that "energy-efficient" be changed to "**clean energy**" in any recommended vote, to be more specific, with "clean energy technology" defined as "home heating and energy producing systems that produce zero greenhouse gas emissions during normal use".

The concern: The Town has 7 historic districts, covering several hundred homes (some not considered historically significant, but geographically included in the historic districts, under AHDC oversight). Solar panel projects proposed for historic district properties are currently reviewed by the AHDC and, if not granted a Certificate of Appropriateness (COA) (or of non-applicability or hardship), cannot be installed by homeowners even if a project is technically feasible and a building permit would have, otherwise, been granted. (Related to this, design changes might be specified by the AHDC as a condition of allowance that make the projects more costly and/or less

optimal with regard to energy production.) Also subject to such review are other clean energy installations, most notably, the placement of exterior heat pump units. The criteria for review by the AHDC primarily involve assessments of their aesthetics (see *AHDC Design guidelines*, <https://www.arlingtonma.gov/home/showdocument?id=46120>). Generally, clean energy installations, including solar panels, do not involve irreversible changes to historic features or materials. In contrast, other reversible changes to homes that, nonetheless, greatly affect aesthetics, are, by law (MA Chapter 40C, Historic Districts), not subject to AHDC review. These include the color of exterior house paint and of roofing materials, both specifically excluded under Chapter 40C (Section 8). This means that, while the owner of a home in an historic district may paint their house any color they wish, they may be unable to make clean energy upgrades because of the way these installations look. Even though roofing material colors are excluded from review by law, solar panel installations may be disallowed if the panels do not match the roof color (see Examples 1 and 3).

Why only a resolution? We've been advised, including by Town Counsel, that the AHDC is *required* to review solar panel installations under current state law, Chapter 40C, Historic Districts (<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40c>). (Chapter 40C does, however, appear to encourage some leniency, as the AHDC Design Guidelines also state: "When ruling on applications for certificates of appropriateness for solar energy systems.... the commission shall also consider the policy of the commonwealth to encourage the use of solar energy systems and to protect solar access."; Section 7) The situation for exterior heat pump units is a little less clear, as these do not necessarily "affect the exterior architectural features" of a structure. However, heat pumps and similar systems were included in the Warrant Article because reviews of such units by the AHDC have occurred. (In the case of one proponent, at 99 Westminster Ave, an air-source heat pump was allowed, as long as it was hidden behind a backyard fence and, fortunately, this installation site was feasible.)

Thus, Town Meeting cannot vote for a town bylaw change that would remove solar panels and other clean energy installations from AHDC review. Though our proposed resolution would be nonbinding, a positive vote would, at least, convey the message that Town Meeting strongly supports prioritizing installation of clean energy systems, including for homes in historic districts. We hope that this would result in the AHDC voluntarily revising its Design Guidelines so as to be even more open to allowing such systems. In addition, we hope that a statement of support by Town Meeting would encourage our state legislators to consider amendments to Chapter 40C to promote greater leniency with regard to clean energy installations in historic districts, statewide.

Update:

1. We very much appreciate that, after review of our original Article (presented to the committee by Patrick Hanlon), the Clean Energy Future Committee (CEFC) included the following in its Net Zero Action Plan (see Jan, 2021 version, p. 25) as a priority measure:

“NZ B 8 -- Review whether there are unnecessary barriers to energy efficiency and renewable energy technologies in Historic Districts, and if so, whether changes could be made to Design Guidelines that would reduce those barriers.”

2. Indication of inconsistency and/or increased leniency on solar panel installations in an historic district. It came to our attention over the past few months that at least one historic district property was approved to have solar panels that did not match its roof color and also had an irregular, non-rectangular layout (see Example 5).

Examples:

Example 1 shows a proposed solar panel installation at 75 Westminster Avenue (a schematic by the proposed contractors, SunBug Solar). This **was not allowed** by the AHDC. According to the AHDC hearing minutes (2/23/2017 and 3/23/2017), the reasons were aesthetic, including: (1) The arrangement is not rectangular, having “a jagged, mosaic look”; (2) Black panels against a light colored roof is “visually problematic”; (3) Panels are on the front of the property. Whether they could be placed on the back roof face (SE instead of SW) was asked, but the contractor stated that the square footage was not adequate. When the Feb hearing was continued in March, the applicants and their contractor returned with changes to an earlier proposal, including removal of one panel “to try to make it look better”. Further discussion at the hearing included an inquiry as to whether the applicants were going to be replacing their roof (so that it could be replaced with black roofing material to match the panels) but the grey roof was described as having ~20 useful years left. One Commissioner cited two other solar panel installations with irregular patterns having previously been denied in other Arlington historic districts. The AHDC voted 5–2 against allowing the project, so the panels were never installed. (Note that the homeowners at 75 Westminster are among the proponents of this Warrant Article.)



Example 2 shows a solar panel installation at 99 Westminster Ave that **was allowed** (COA, 11/15/2012, unanimous approval). These panels have a non-rectangular pattern, and do not match the roof. However, the installation was allowed by the AHDC because the house is located up on a hill, so the solar panels do not show from the street. (This photo was taken from inside the next-door neighbors' home.) Discussion at the hearing included a concern expressed by one Commissioner as to whether they could be seen from behind the house (Park Place/Crescent Hill Ave) though the project was allowed, nonetheless. (Note that the homeowners at 99 Westminster are among the proponents of this Warrant Article, though they appreciate that their own project was allowed.)



Example 3 shows a solar panel installation at 81 Westminster Ave that **was allowed** by the AHDC. These do show from the street, but the pattern is rectangular and the applicants were planning to replace their roof, and agreed to make it black so that it would better match the panels. It was noted further that all electrical lines were to be placed in the back of the house. The black roof and panels, as well as conduits in the back, were described by some Commissioners as being conditions for their approval (AHDC minutes, 7/24/2014, unanimous approval).



Example 4 shows an illustration from an article on the National Trust for Historic Preservation website, “8 Ways to Green Your Historic House”, written by an historic preservationist, Meghan White (<https://savingplac.es/2QqA7dA>). Though this article represents only one professional’s opinion, we include the photo because it was selected as an example by its author, even though the panels do not match the roof color on this historic property.



Update: Example 5 shows a 2020 solar panel installation at 195 Westminster Ave that **was allowed**, with black panels on a red roof, as well as an irregular (non-rectangular) layout. Minutes from the hearing, Dec 2019 and Jan 2020, indicate that the homeowners modified the design to make the “skylight ...fit in better” and that approval of this modified design (as shown in the photo) was unanimous. Thus, approval of this installation appears to indicate some flexibility, welcomed by the proponents of this Warrant Article, in the implementation of the Design Guidelines by the AHDC. However, it also suggests inconsistency, compared with earlier projects that were not approved because of an irregular layout and/or panels not matching the roof color (e.g. Example 1; note that Example 1 would have been in the front, instead of the side, of the house, though Examples 1 and 5 both involve high visibility from the street).

