



TOWN OF ARLINGTON
DEPARTMENT OF PLANNING and
COMMUNITY DEVELOPMENT

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MEMORANDUM

To: Adam Chapdelaine, Town Manager

From: Ken Pruitt, Energy and Project Manager

CC: Jennifer Raitt, Director, Department of Planning and Community Development
Members of the Clean Energy Future Committee

Date: March 4, 2020

RE: Bylaw Amendment/ Fossil Fuel Infrastructure Warrant Article for 2020 Annual Town Meeting

A Warrant Article for Annual Town Meeting proposing to regulate the installation of fossil fuel infrastructure in new construction and major renovations was inserted at the request of the Clean Energy Future Committee (CEFC).

The Department of Planning and Community Development (DPCD) has provided staff support to the CEFC for preparation of this Warrant Article, including research into a similar Warrant Article passed by Brookline Special Town Meeting in November, 2019 and participation in educational sessions hosted by the Massachusetts Climate Action Network. We have also facilitated discussions with representatives from the CEFC, Sustainable Arlington, and Mothers Out Front, forming a Working Group. The following matters should be considered relative to this Warrant Article:

- **This Warrant Article would be consistent with Arlington's Net Zero commitment.** At their January 29, 2020 meeting, the CEFC voted to request that the Select Board insert a Town Meeting Warrant Article relative to a potential bylaw to prohibit fossil fuel infrastructure in new construction and major renovations. The CEFC has been working on a Net Zero Plan with the Metropolitan Area Planning Council which is due to be completed by the end of this year. A major focus of the plan is to reduce or eliminate the combustion of fossil fuels for heating and transportation within Arlington. Additionally, this Article is consistent with the goal to reduce greenhouse gas (GHG) emissions to net zero by 2050 adopted by the Select Board in January 2018.
- **The Arlington bylaw would be modeled after Brookline's recently adopted fossil fuel bylaw.** Brookline's bylaw is being used as the model for Arlington's proposed bylaw, matching definitions and requirements fairly closely. The bylaw was adopted by the Brookline Special Town Meeting in fall of 2019, by a vote of 211-3, and is being reviewed by the Attorney General. The bylaw prohibited fossil fuel piping in new

buildings and new piping in existing buildings undergoing “Significant Rehabilitation,” meaning alteration of 50 percent or more of the original square footage of commercial buildings, and 75 percent or more of the original square footage of residential buildings. The bylaw would include exceptions. Brookline’s included exceptions for cooking (gas is still allowed), backup generators, repair or extension of existing heating systems in buildings not undergoing a major renovation, and central hot water systems in buildings that are larger than 10,000 square feet. The bylaw also established a committee authorized with issuing case-by-case waivers due to excessive cost or impracticality.

Historical data on construction related to Warrant Article. The Department communicated with the Assessors Office and Inspectional Services Department (ISD) to determine the number of buildings that the bylaw would have affected had it been in effect over the last ten years. 309 new buildings were constructed over the period from 2009 to 2018, which includes building permits for all uses and all types of structures.

In order to determine the number affected by Major Renovations, we utilized a different methodology. Inspectional Services does not code building permits based upon the scope or percentage of a renovation. Therefore, relevant data for alterations that would meet the proposed bylaw definition of Major Renovation are estimated based on building permits coded for interior renovations. For the construction period from 2009 to 2018, 445 building permits were issued for what might be considered Major Renovations.

- **Definition of Major Renovation.** The “Significant Rehabilitation” definition used in the Brookline bylaw, tentatively titled “Major Renovation” in Arlington’s draft bylaw, is defined separately for commercial and residential buildings. The Working Group is satisfied with this definition for commercial and multifamily buildings. However, the definition for houses (both single family and duplexes) is still under consideration as of the drafting of this memo. The Working Group is trying to ensure that the definition addresses residential construction projects that equate to a Major Renovation without penalizing residential construction projects that are less extensive. The Working Group is continuing to seek input from the ISD, local builders, business owners, and others engaged in real estate development.
- **Appeals/Waivers.** Brookline’s bylaw calls for the establishment of a Sustainability Review Board, appointed by the Select Board, to hear appeals and issue waivers under the bylaw. The Working Group has recommended that the Zoning Board of Appeals (ZBA) review and issues decisions on appeals, and that the Building Inspector reviews and issues waivers. The Working Group may need to consider whether the ZBA is the most appropriate body to hear appeals, or if the Board of Building Appeals (a body established by Arlington’s Building Regulations, Title VI, Article V of the Town Bylaws) would hear and decide on appeals cases. The Working Group is satisfied with the existing draft waiver provision that assigns authority to grant waivers to the Building Inspector. Particular consideration for waivers will be given to projects

sponsored by the Arlington Housing Authority (AHA), given the AHA's limited sources of capital funds. It is contemplated that the Building Inspector would make use of expertise in other Town Departments, to the extent necessary. The Working Group will also be developing criteria applied to the review and granting of waivers.

- **Alternatives to fossil fuel heating are available.**

The practical effect of this bylaw would be to cause owners of most new buildings and buildings undergoing major renovations to install electric heating and domestic hot water systems such as air source and ground source heat pumps. Modern cold climate heat pumps provide both heating and cooling without on-site combustion of fossil fuels. Unlike electric resistance heaters installed in the past, modern electric heat pumps are highly efficient and affordable. They can heat both small and large spaces. For example, the new Arlington High School will be heated (and cooled) exclusively with a combination of ground source and air source heat pumps. While current GHG emissions from electric heat pump heating are already only about half of those from natural gas heating, as the electrical grid steadily replaces fossil fuels with renewable energy (a typical Arlington home's electricity supply is currently 27 percent renewable, increasing by 2 percent per year), all-electric buildings will come closer and closer to emitting zero GHG emissions.

- **Public outreach.**

The Working Group is seeking input from the public and key stakeholders on this proposed bylaw. A public information session was held on February 27 from 7:00 p.m. to 9:00 p.m. in the Lyons Hearing Room. Approximately 60-70 people attended. There were questions about the cost and longevity of heat pump technology, whether the electrical grid could handle the increased load from all-electric heating in more buildings, how the waiver process would work, whether older homes could be effectively and efficiently converted to all-electric heating, and how residents could help support adoption of this bylaw by Town Meeting. The session was recorded by ACMi and will be available to view soon. Additional outreach continues, including to the business community, led by members of the Working Group.