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Subject: [EXTERNAL]Planning Commission / Environmental Policy Commission small working group public comment
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Hello, Chairs Macek and Hoekstra, and members of the Planning Commission/Environmental Policy Commission workgroup examining joint sustainability initiatives relating to development and green buildings. I appreciate your devoting time to this topic, and am writing to share comments.

Establishing significantly stronger requirements and incentives for energy performance in new buildings in Alexandria is critically important. Soon after the adoption of the current Green Building Policy, City Council unanimously approved a resolution declaring that a climate emergency threatens our city, region, and the rest of the world. The Declaration stated that “strong and unprecedented action” is needed to cut community-wide greenhouse gas emissions in half by 2030, the goal committed to by the Environmental Action Plan 2040.

We are already seeing signs of this climate emergency. In July, 2020, a severe storm dropped 2-3 inches of rain on parts of our city in just 30 minutes. A month and a half later, a similar rainfall event dropped 2.5-4 inches of rain, at a rate as high as 3 inches in ten minutes. In August of 2021, 3- 5 inches of rain fell in about an hour, including more than 3 inches in 30 minutes at one rain gauge reading at George Mason Elementary. The intensity and frequency of extreme rainfall events will steadily increase as long as our greenhouse gas emissions continue, causing millions of dollars in damages and potentially rendering parts of the city uninhabitable within the coming decades. In the longer term, accelerating and irreversible sea level rise caused by our greenhouse gas emissions will do the same. Flooding is but one dangerous risk we are taking, but there are many others.

As context for your work I urge you to consider the following:

- **Achieving the 2030 emissions reduction target of cutting emissions in half is essential.**

Since Council’s Climate Emergency Declaration, the already strong scientific consensus has grown even stronger that meeting this target is critical to maintaining the possibility of limiting global average temperature increase to 1.5°C.

Economists are joining scientists in reaching this conclusion. As stated in a [new report by the Organization for Economic Cooperation and Development](#), the intergovernmental group of the world’s high-income economies devoted to stimulating economic progress and world trade, “the existence of climate system tipping points means it is vital to limit the global temperature increase to 1.5°C.... For climate strategies to adequately reflect tipping-point risks, they need to drive drastic cuts in emissions this decade, including through...accelerated transformation towards net-zero....” The report goes on to state that “missing the opportunity to implement such strategies could lead to immeasurable economic and ethical costs in the near-future.” [emphasis added]

- **The Inflation Reduction Act has fundamentally changed the financing of net zero**

development by providing major new incentives for the development of highly-efficient buildings. Hundreds of billions of dollars in economic incentives are now available to builders for the next several years, including tax incentives for renewable energy facilities and equipment in new homes, and for energy efficient buildings and Zero Energy Ready Homes. These incentives can dramatically improve the return on investment (ROI) for adoption of best practices for the design and development of extremely energy-efficient buildings.

- **Meeting the 2030 target means reducing greenhouse gas emissions by 5% per year.** In contrast, our most recent greenhouse gas emissions inventories show annual emissions reductions of only about 1%. A 5% reduction in emissions in one year is roughly the same size as occurred in 2020 with COVID; unfortunately, global emissions rebounded sharply in 2021, likely setting a new record high.

- **Because building energy use accounts for nearly 60% of our community's emissions, meeting the 2030 target will require deep reductions in this sector.**

- **Dominion Energy won't do the job for us.** Even if Dominion transitions to renewable energy production as required under the Virginia Clean Economy Act, basic math from Alexandria's recent greenhouse gas emissions inventories shows we'll need to reduce both electricity and natural gas use in existing commercial and residential buildings in the neighborhood of 45-50% by 2030 to meet our emissions target—in addition to substantially reducing emissions from other sources.

- **Buildings with dramatically better energy performance than currently required in Alexandria can be constructed with only marginally higher up-front cost and with significantly stronger long-term profitability over their lifespan.** Short (5-12 minute) excerpts on the costs and benefits of high-performing buildings, taken from longer webinars hosted by the local group [Build Our Future](#) which I'm a part of, are posted on YouTube at these links:

Jonathan Arnold, Arnold Development Group: <https://www.youtube.com/watch?v=BYozaHoxfBo>

Tim McDonald, Onion Flats, LLC: <https://www.youtube.com/watch?v=DYFqzQA3vo0>

Christoph Stump, Trinity Financial: https://www.youtube.com/watch?v=gXx_7J-uzFs

I urge your subgroup to join Council in recognizing the urgent need for “strong and unprecedented action” to address climate change by establishing a rapid pathway for net zero energy development in Alexandria within the next few years.

Thank you for your work on behalf of Alexandria.

Scott Barstow

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