



**We are in  
a climate  
crisis.**





Annapolis-2019





**Ellicott City-2018**

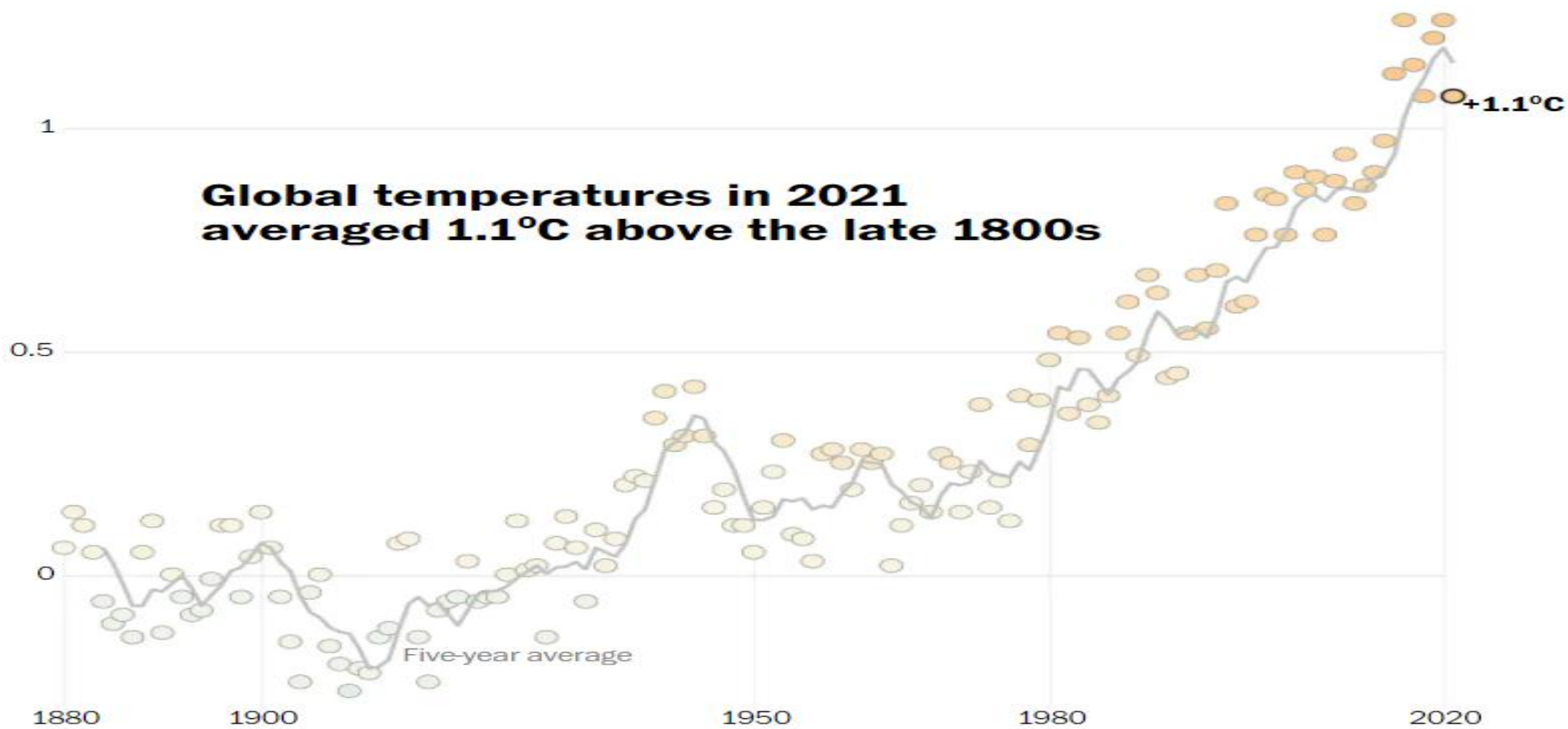




**Route 50, Prince George's County-2020**

1.5°C above 1880-1899 average

## Global temperatures in 2021 averaged 1.1°C above the late 1800s





# Study: Flooding Losses to rise 26%

*“Climate change will cause the nation’s flooding losses to jump more than 26 percent over the next three decades, with disadvantaged communities shouldering an outsize share of the economic burden...”*

*The study, published in the journal Nature Climate Change, estimates that the annual cost of flooding in the United States will increase 26.4 percent — from \$32.1 billion to \$40.6 billion — by 2050. But the forecast assumes nations will reduce planet-warming emissions roughly in line with the targets agreed upon at the recent COP26 climate summit. If those targets aren’t met, the costs could be even greater.”*

Source: Washington Post  
Jan 31, 2022

# Study: Mountain Glaciers' Melt Could be More Calamitous

**“As global temperatures rise, mountain glaciers around the world are sweating. This could affect nearly 1.9 billion people living in and downstream of mountainous areas who depend on melting ice and snow for drinking, agriculture and hydroelectric power.”**

-Nature Geoscience study published on 2/7/2022

(As seen in Washington Post)

# Bill Provisions

## Listening to Climate Scientists:

- 60% emission reduction by 2030
- Net zero emissions by 2045

## Environmental Justice:

- Environmental Justice commission will work with MDE to identify communities disproportionately impacted by climate change
- Set goal for future state investments in impacted communities
- Establish *Climate Justice Corp* to reduce greenhouse gas emissions, improve environment and address public health issues in impacted communities

## Buildings:

- PSC will study electrification and grid capacity
- *Large **existing buildings*** (over 25,000 ft<sup>2</sup>) must reduce emissions to net zero by 2040
- Building Energy Transition Taskforce will recommend plan to assist building retrofit through tax credits, subsidies or other state support



# Bill Provisions cont.

## Transportation:

- Transition state government light duty vehicles to electric vehicles
- Transition school buses to electric vehicles as funding (including fed infrastructure funds) becomes available

## Schools:

- Each county must build one net zero school by 2030 utilizing special fund to offset additional cost

## Take Action and Create Jobs:

- Creates a Climate Jobs Workgroup that includes labor stakeholders to make recommendations as we transition to a green economy

## Leading by Example:

- State building electricity use must come from at least 75% clean, renewable sources beginning in 2030



# Bill Provisions cont.

## Green Bank:

- State fund to leverage private investment in projects to reduce greenhouse gas emissions

## Empower:

- Increase energy savings through efficiency programs from 2.0% to 2.75% by 2027

## Community Solar:

- Exempt from personal property tax if installed on rooftops, parking lots, roadways or brownfields that serve at least 51% low/moderate income customers

## Climate Transition & Clean Energy Hub:

- Clearing center for advanced tech and architectural solutions to reduce emissions from building sector
- Provides technical assistance to public and private entities to comply with building and efficiency requirements

## Methane:

- Require more accurate air monitoring at landfills for methane release
- MDE must set cap on landfill emissions



# Maryland Building Decarbonization Study

Final Report

October 20, 2021



Energy+Environmental Economics

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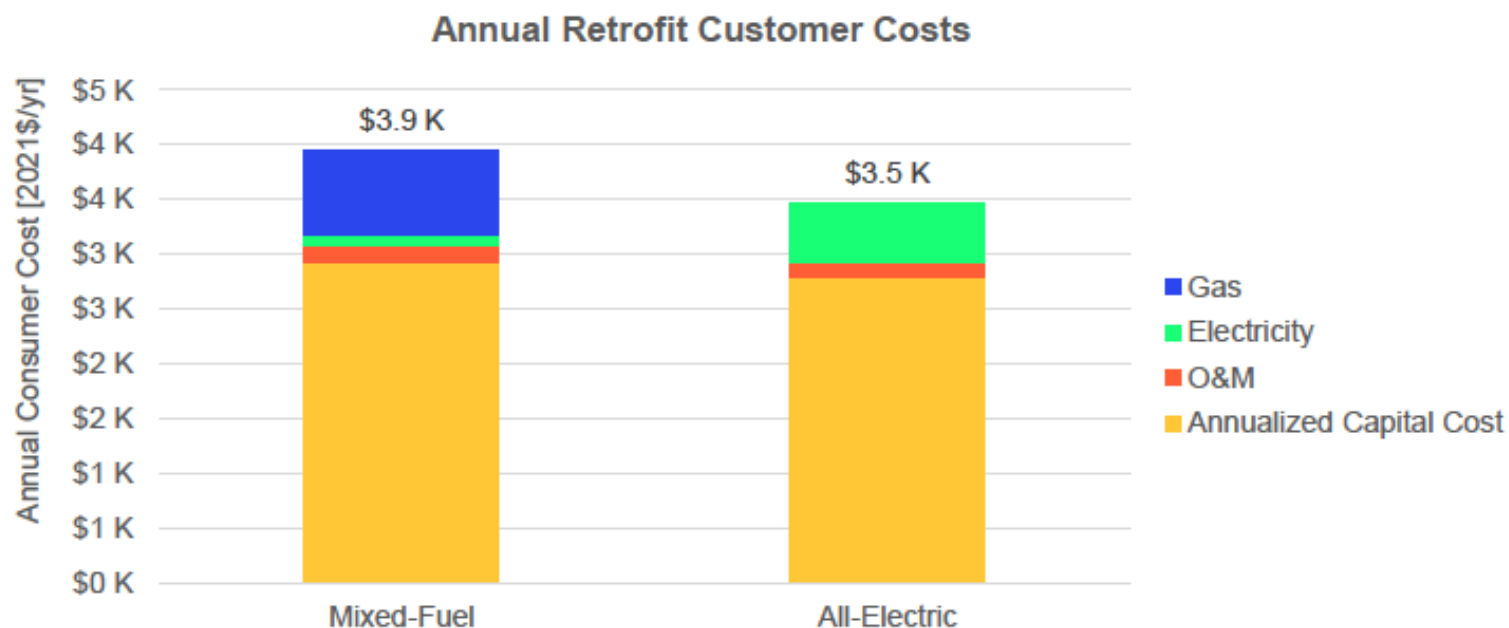
Tory Clark, Director  
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Charles Li, Managing Consultant  
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## Multifamily residential retrofit consumer cost impact

- + Multi-family customers can save both upfront capital and operating costs by retrofitting space and water heating from gas to heat pumps

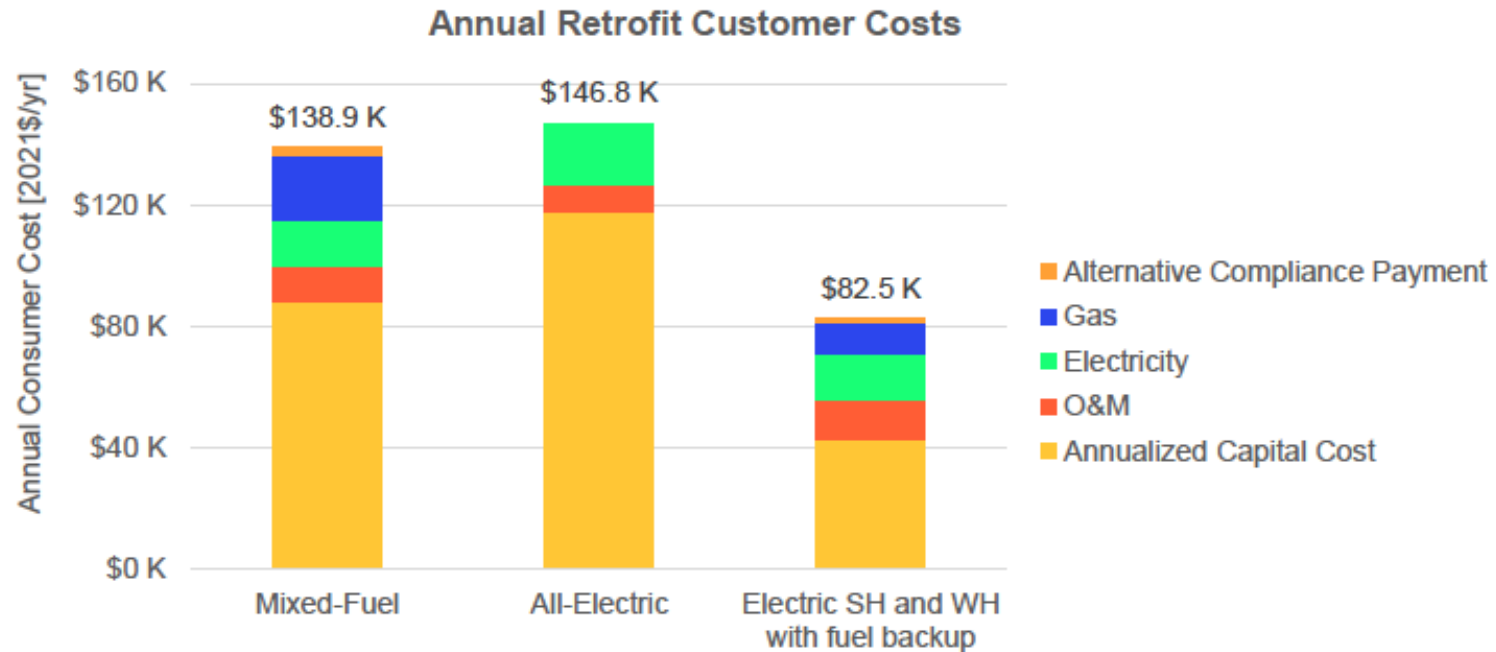


\* Gas costs, electricity costs, and equipment costs are based on 2035 rates



## Large commercial retrofit consumer cost impact

- + **“Hybrid” customers can save money by utilizing their existing fuel-based heating equipment to provide backup heating during coldest hours of a year, and by not having to upgrade building shells**



\* Gas costs, electricity costs, and equipment costs are based on 2035 rates