

October 17, 2021

Jennifer Elwell
Senior Air Quality Engineer
Bay Area Air Quality Management District

Submitted via email to jelwell@baaqmd.gov

RE: Regulation 9, Rule 4 & 6: Considerations for Amendments to Center Equity

Dear Ms. Elwell:

Thank you for seeking input on the proposed timeline on the Air District's efforts to amend Regulation 9, Rule 4 & 6 to reduce the Bay Area's nitrogen oxide (NO_x) emissions from the building sector.

As an environmental engineer and mechanical engineer working on preserving the climate for future generations who are not yet at the table, I appreciate the magnitude of the task of pivoting away from polluting combustion equipment toward electric alternatives. I work on several of the initiatives mentioned in your report focusing on bringing 120 Volt heat pump water heaters to market and developing techniques of electrifying affordably without always upsizing panels and the grid and helping cities adopt forward looking policies.

I've reviewed the science and the Code Red for Humanity is now showing that every new combustion device installed to replace another combustion device has new committed emissions that exceed the 2-degree warming limit of the Paris Accord. This is sobering. It means it's not prudent to wait several years until we pivot each replacement toward clean electric. We have to show leadership by starting ASAP. This leadership will inspire others to follow and will magnify our results.

I appreciate the proposal on Regulation 9, Rule 4 & 6 as it has been put forward in a kit format with components and dates and tests and burdens of proof.

But I think it may have been assembled before we got the Code Red message. Now that we have the message, I have several suggestions for ways we can arrange the pieces to produce macro equity.

And I think we need to use the equity principles mentioned in the report to also make the proposal responsive to parties that could not make it to the table. Those parties are future generations not yet born or of age to defend their rights to a livable climate and the approximately 600 million poor people around the world who may be displaced by forced climate migrations as their current land becomes no longer be flood safe or no longer productive.

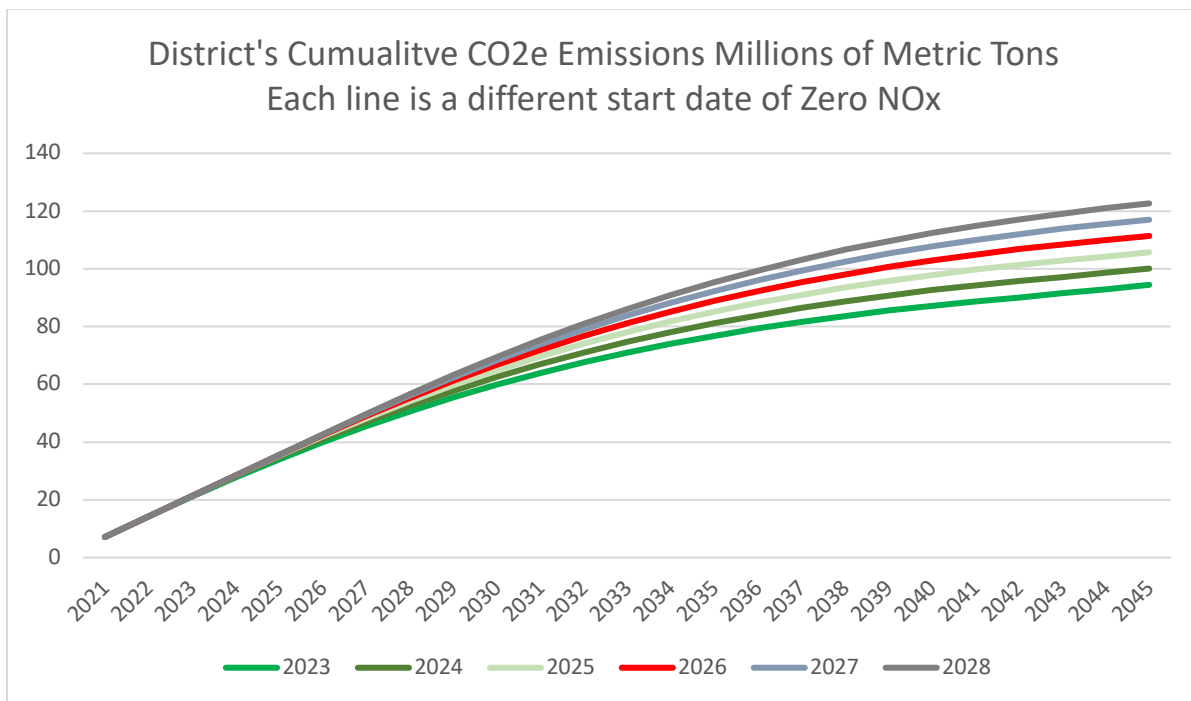
Instead of the current format that has the zero NO_x rule delayed until about 2027 with a two year prior report to see if it needs to be delayed again, we could re-arrange the components to provide

broader equity to those who were not able to be at the table. The current arrangement is a certain delay of at least 6 years with an opportunity to add more delays beyond the starting 6 years.

Every fossil reinstatement is responsible for NOx emissions that blow to disadvantaged regions downwind of us, and that is not equitable. Every fossil reinstatement is responsible for CO2 emissions that are above the Paris 2 degree target, and those emissions have global consequences. A more globally equitable approach is for the District to invert the burden of proof on delays and to have the Zero NOx standard planned to take effect in 2024 unless parties provide information two years prior to that showing that delay for another year would produce more global equity. The board could review that information and hear of the efforts of the parties to remedy inequitable situations. At that time, the board could make a determination whether to push the implementation back another year and then have the parties present information one year later as to whether they feel more global equity could be achieved by a second one-year delay. This way the parties are encouraged to work swiftly in these Code Red times to remedy any impediments to local equity so that we can provide global equity to the many parties not in the room.

The graph below is made from the Staff Report Figure 4 Projected GHG Emissions under Draft Amendments. The Staff's line was accumulated and then re modeled as starting at earlier dates shown. It shows cumulative CO2e emissions are substantially reduced by building less delay into the start date.

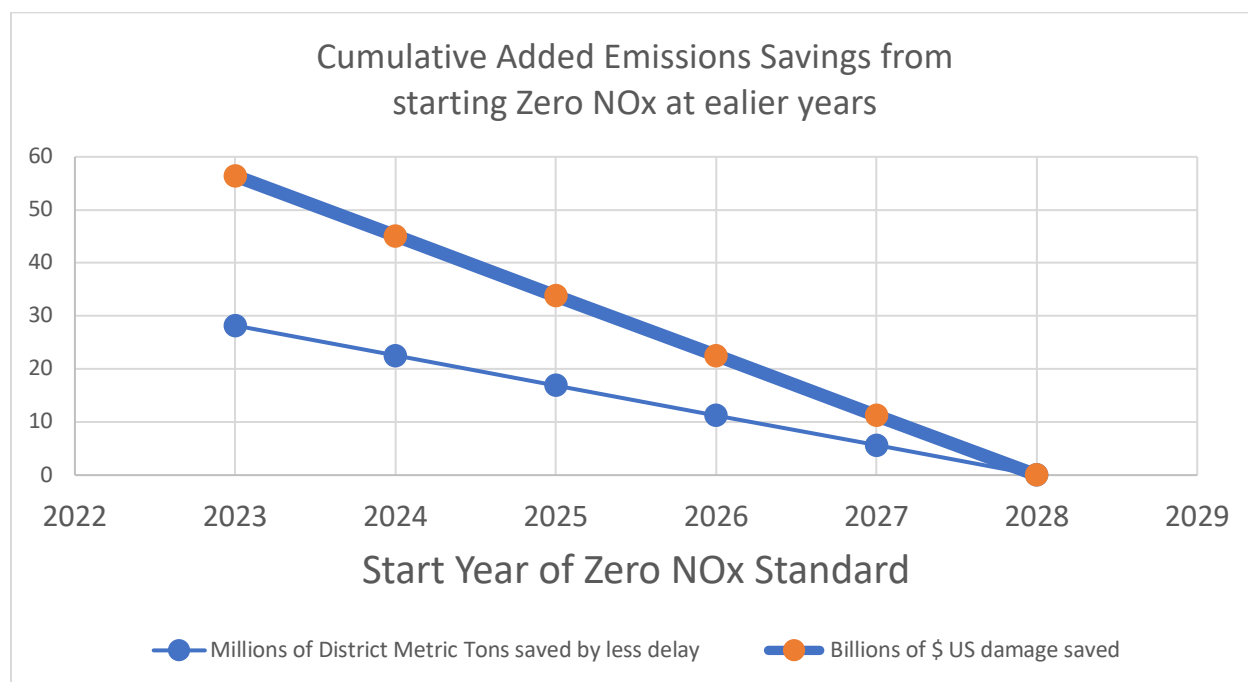
Figure A



Accelerating the implementation has a direct cumulative emission reduction of 5.6 million tons of CO2e for each year of delay avoided.

The lower thin line on Figure B shows the cumulative additional millions of metric tons of CO₂e saved by not delaying the start to 2028. For example, starting the Zero NO_x Rule in 2024 rather than 2028 would save an additional 22 million tons of District CO₂e emissions over the period through 2045. The thicker line above shows the value of avoiding CO₂ damage costs or capture costs if they were at the oil industry's optimistic \$200 per ton level and if District leadership on this matter inspired only about 10X additional follow-on acceleration by other entities.

Figure B



Thank you for considering this information and advice to re-order the burden of proof in order to create more equity and faster pursuit of solutions that improve the ease of starting sooner.

I support the district in providing strong leadership in accelerating our response in this important time.

Sincerely,

Tom Kabat

Menlo Park resident