



6 February 2020

Metro Council Testimony – TriMet Transportation Program Funding

Council President Peterson, Members of the Council, I am Tracy Farwell, a member of Engineers for a Sustainable Future, an organization of Portland area engineers meeting frequently to find opportunities to join the conversation about the climate crisis and appropriate actions to be taken, guided by the numbers.

Two days ago, more than 500 Oregon health leaders declared that climate change now poses a public health emergency. This report emphasizes the threat that diesel-fueled public transportation represents, and strongly advocates for zero emissions vehicle technology.

[Omit to stay under 2 minutes

Sustainable Engineers are committed to supporting this advocacy, calling attention to the urgency of taking effective action in the near term. It is our conviction that TriMet will not take immediate action without decisive intervention from Metro Council leadership, given that the TriMet Board has approved acquisition of 150 diesel buses without stipulating any timeline that ends diesel bus buys. Moreover, TriMet states it plans to continue diesel bus buys for another 5 years.]

I suppose you notice that metropolitan Oregonians are hostages in this faceoff between, on one side, public investment of public monies by unelected TriMet authorities, who cannot be recalled, dictating public health risks from decades of uninterrupted diesel pollution and, on the other side, public health professionals. Who would approve such a plan? No one. What elected public authority is assessing TriMet's zero emissions fleet transition program against criteria that include public health? No such effort has been announced or is underway.

Such programs are properly approved before they are formally given a go-ahead. In the case of TriMet there is no external approval. We and our climate allies (still forming up) will demand that Metro identify and cost-out a Zero Emissions Fleet Transition Plan, secure funding, and stand up a program management office to get this job done on an emergency schedule. TriMet can implement the plan under emergency supervision. Public health demands it, and TriMet is not responsive.

Reference: [Neighbors for Clean Air, News Release 5 February 2020](#)

TELL METRO COUNCIL TO SAY NO TO A \$3B PLAN THAT ACHIEVES NEARLY ZERO CLIMATE AND AIR QUALITY BENEFITS.



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Appendix

500 Oregon Health Leaders Declare Climate Change A Public Health Emergency

The [Oregon Public Health Association](#) and 40 other health organizations on Tuesday February 4, 2020 announced their unified front on climate action.

<https://www.opb.org/news/article/oregon-health-leaders-declare-climate-change-public-health-emergency/>

How do we compute the rate of emergency carbon emissions reduction?

Unless global greenhouse gas emissions fall by 7.6 per cent each year between 2020 and 2030, the world will miss the opportunity to get on track towards the 1.5°C temperature goal of the Paris Agreement.

<https://www.unenvironment.org/news-and-stories/press-release/cut-global-emissions-76-percent-every-year-next-decade-meet-15degc>

Use the mortgage rate equation – everybody knows how to do this.

Determine the amount of carbon reduction accomplished in 10 years at an annual carbon cut rate of 7.6% from 2020 level.

Target level = $(1-0.076)^{10} = 0.45 = 45\%$ of 2020 emissions, a 2030 goal we dare not exceed.

What is TriMet planning? Fleet emissions will still be 81% in 2020 (estimated from figure below).

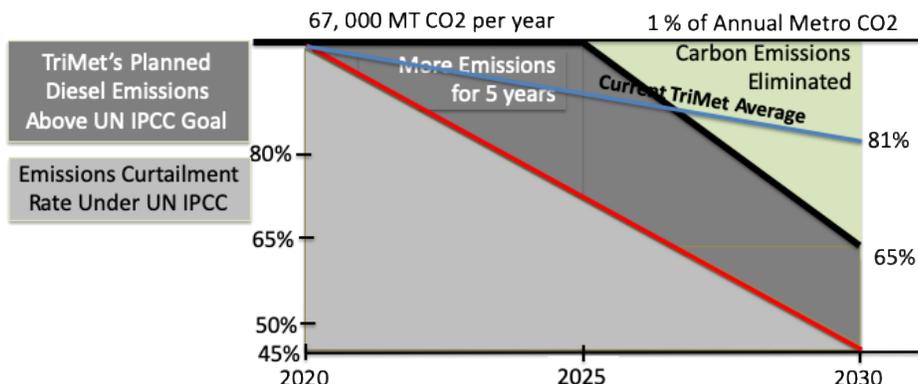


Carbon Emissions Approved by the TriMet Board – September 2019

<https://trimet.org/meetings/board/pdfs/2019-09-18/Res%2019-09-78.pdf>

Data taken from the TriMet Diesel Plan, September 2018, p 20, Figure 8

<https://trimet.org/electricbuses/pdf/TriMet-Non-Diesel-Bus-Plan-September-2018.pdf>



This means TriMet plans an average reduction of only 2% over 10 years.

Proof:

Target level = $(1-x)^{10} = 0.81 = 81\%$. By cut-and-try, $x=0.02 = 2\%$.

TriMet is not responsive, even before the public health emergency declaration.



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Frequently Asked Questions - TriMet

Q1 Why is TriMet Acquiring New Diesel Buses?

They say it is for normal replacement and for extending services. The TriMet fleet is made up of 668 buses, and diesel consumption is 6 million gallons annually.

Q2 Are there Non-Diesel Alternatives?

Yes. Seattle has committed to transitioning their fleet to battery electric buses, while still operating the legacy electric trolley fleet. New York's MTA is retiring all diesel buses, transitioning to an electric fleet. California has mandated electric buses.

Q3 Has the TriMet Board of Directors Set a Target Date for Retiring the Diesel Fleet?

No. Their authorization for the diesel bus buy (159 buses) is open-ended.

Q4 What is TriMet Doing About the Transition to Clean Fuels?

TriMet is duplicating the same kind of clean fuel evaluation other transit operators have already completed. Electric buses are being evaluated. TriMet is critical of their reliability performance without issuing any reliability or maintainability reports to compare with other fleets.

Q5 Has TriMet Committed to a Carbon Emission Reduction Goal?

Yes. Twenty years out: Zero emissions in 2040. At 10 years in 2030 TriMet fleet emissions will be down 35% at best.

Q6 How much time remains in the Climate Crisis?

The UN IPCC SR15 report states that it is too dangerous to reduce carbon emissions any less than 45% in 10 years time, and there are no do-overs. TriMet has no stated goal in 10 years, to justify starting 2020 by buying more diesel buses. TriMet leadership states "reductions" will be made. This is not a "major action." The majority of TriMet bus buys are worst available technology.
<https://news.trimet.org/2019/12/trimet-announces-major-actions-to-reduce-its-carbon-footprint/>

Q7 Has TriMet Management Published Their Carbon Emissions Reduction Profile?

No. But this can be derived from their theoretical diesel bus replacement data. Their commitment to ending the public health threat from diesel fuels is to stop buying diesel buses in 5 years, which is allowed by the TriMet Board.

Q8 Is There Any Indication the TriMet Board Committed to Constraining TriMet Diesel Emissions to Meet the Urgent Demands of Portland's Public Health and Climate Crises?

No. This is why the campaign to recall the Board is so important. If the present gross inaction from the Board of Directors and TriMet management authorities continues, their pollution plan depicted in the following graphic will continue to erode the last ten years remaining for us to secure a safe and habitable environment.

Other Dire Facts

The Board of Directors is not elected by the public.

TriMet public transit authorities are not elected by the public.

Management is NOT planning to REDUCE carbon emissions next year, the year after that, or after that.

TriMet is not seeking funds from the Nov 2020 ballot funding measure to fix this.

TriMet is mandating diesel pollution for at least 5 years, despite its known public health threats.

<https://news.trimet.org/2019/12/trimet-announces-major-actions-to-reduce-its-carbon-footprint/>

TriMet is dismissing available electric bus alternatives due to undisclosed business criteria.

TriMet has been unaccountable to anyone for its decades of inattention to harmful PDX emissions.

Management has a history of issuing disinformation to deflect any obligation for fleet reform.

<https://pamplinmedia.com/pt/9-news/341731-221727-agency-still-relies-on-dirty-diesel-fleet->

Management has a history falling behind other transit agencies who have adopted clean fleets.

<https://pamplinmedia.com/pt/9-news/341732-221728-trimet-slow-to-board-electric-bus-bandwagon>

A new plume of diesel particulates is being mandated for an area of Southeast Portland where air quality is currently not reported as high in particulates. See appended pollution map.

DPM = Diesel Particulate Matter

