November 1, 2023

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Please find enclosed the Providence Urbanist Network's (PUN) comments on the Rhode Island Department of Transportation's draft Carbon Reduction Strategy (CRS). As currently written, this strategy is wholly inadequate to meaningfully reduce emissions, let alone meet the state's Act on Climate targets. It starts with a lack of ambition, essentially ignoring the state's critical 2030 target, and follows this up with a lack of a meaningful plan of action. These failures are accompanied by questionable claims about the efficacy and cost-effectiveness of existing and planned approaches and an absence of evidence to support RIDOT's claims.

In order for this plan to resemble a legitimate strategy to reduce greenhouse gas emissions in the transportation sector and for transportation to play its part in meeting Rhode Island's Act on Climate mandate, several things will need to change in this plan.

First, RIDOT needs to increase its ambition. RIDOT has set its current goal for annual emissions to decline to 2.79 million metric tons of CO2 equivalent (MMT-CO2e) in the transportation sector by 2030 (alluded to in CRS Figure 1.1). Based on the 3.2 MMTCO2e figure provided for 2021, this would result in reductions of only 410,000 tons by 2030, a paltry 13% reduction over nine years - and one that would entirely be met without further state action (CRS Figure 1.1).

By law Rhode Island needs to reduce overall emission 45% by 2030. When counting for emissions reductions from 1990-2020 (the last year with full data publicly available), this still means a 32% decrease, economy-wide.

With RIDOT planning for such weak performance from the transportation sector, other sectors will likely not be able to make up the gap and reduce annual emissions by the full 2.88 MMT that is needed by 2030 (from 2020 levels). Even when accounting for the progress that Rhode Island plans for its electricity sector, it is still critical that transportation do its share given how difficult it will be to reduce emissions in the residential and commercial heating sectors and the industrial sector. In the residential and commercial heating sectors, the pace of electrifica-

tion is fundamentally challenged by the enormous stock of existing buildings with gas and oil heating. In the industrial sector, solutions for industrial decarbonization are not as mature as they are for other sectors.

As such, RIDOT should improve its goal to reduce emissions, and aim for a full 1 MMT of reductions by 2030, a 31% decrease from 2021 levels. This would require RIDOT to take meaningful action to reduce emissions, unlike what is envisioned in the current draft of the strategy.

Second, RIDOT needs to back up an increased ambition with action. RIDOT's only currently employed method of reducing emissions cited to date is various highway projects to decrease congestion. However, the volume of reductions claimed by existing and planned congestion reduction projects is simply not to scale with the changes needed. The aggregate 10,520 tons of CO2e per year claimed by the three highway projects underway is 0.1% of the 1 million MMT-CO2e of reductions that RIDOT should be aiming for, and only 2.6% of the contribution to its existing, inadequate, target.

A more central problem is that we at PUN have not seen any compelling evidence to suggest that these actions will result in the emissions reductions claimed by RIDOT. It is likely that instead of reducing emissions, the actions that RIDOT is taking will actively increase them. An extensive review from 2018 in the Latest Evidence on Induced Travel Demand, An Evidence Review[1] by the UK Ministry of Transport concluded that more induced traffic is associated with road capacity increases where there is a high level of congestion and suppressed demand. (p. 23)

Other tools corroborate this. The State Highway Induced Frequency of Travel tool[2] from global think tank RMI offers that even a single lane-mile of interstate in the Providence metro area will induce an additional 4 to 6 million vehicle miles traveled per year. Even with the unlikely assumption that with the additional capacity, traffic will be free-flowing, just the emissions from added vehicle miles traveled will offset the speculated reductions.

Nor is the lack of reductions that these actions represent compensated for elsewhere in the plan. For example, the inclusion of "bicycle path preservation" in the

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[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/762976/latest-evidence-on-induced-travel-demand-an-evidence-review.pdf

[2] https://shift.rmi.org/

Carbon Reduction Program does nothing to reduce emissions. By its very nature, “preservation” implies maintaining the current state, not adding to infrastructure.

Between the inadequate goal of reducing emissions by only 410,000 MMTCO2e by 2030 and the meaningless, when not actively harmful, actions proposed, this is not currently a plan to reduce emissions. It is a plan to do nothing and allow national trends of increased fuel efficiency and transportation electrification to do the work of decarbonization. As such, as regards the 2030 timeframe, this document cannot properly be called a Carbon Reduction Strategy in its current form.

A start for RIDOT to make meaningful progress on reducing emissions would be to shift the balance of Carbon Reduction Program funds from “congestion management projects,” which even RIDOT’s own numbers show are largely meaningless in terms of reducing emissions, to projects that reduce vehicle miles traveled. This would include moving projects such as “Statewide Striping Contracts: Bike Lane Design and Construction” and “Bicycle Mobility Plan Implementation” from “additional projects proposed for funding” (CRS Section 9.1) to including these projects in the State Transportation Improvement Plan.

Additionally, RIDOT should follow the lead of states such as New York, Vermont, and New Jersey and use federal funds from the Congestion Mitigation and Air Quality and the Surface Transportation Block Grant programs to expand rail transit, build more bus shelters, set up systems that prioritize transit, and make other transit investments.

Finally, PUN would like to comment on RIDOT’s lack of methodological support for the assumptions that are made in this report. Table 7.2 identifies “traffic flow improvements" as having a “very high” level of greenhouse gas emissions cost-effectiveness. This in turn is from a table in Rhode Island’s Clean Transportation and Mobility Innovation Report (p. 34), which cites the use of an “Investment Strategy Tool.” Yet in Appendix C of the aforementioned report there is no methodology given to show how the report’s authors come up with this conclusion that its efficacy is “very high.”

The conclusion that congestion management is a highly cost-effective means to reduce emissions is belied by RIDOT’s own calculations. The three congestion reduction projects that RIDOT has in the STIP collectively cost $416 million, and the carbon reduction that RIDOT claims they offer is a total of 10,520 tons per year. That results in a cost of around $39,500 per annual ton of CO2 reduced; even when these costs are spread over a decade the cost is around $3,950 per

ton. Not only is that an absurdly high figure for carbon reduction projects, but it would more than pay for the cost of the many active mobility projects that RIDOT claims that it cannot find funding for.

It also neglects the probability that any alleged savings will be outweighed by induced demand, as noted above, making any cost calculation completely irrelevant.

As outlined above, RIDOT will need to completely revise this strategy if it is to meet its stated goals. As this document stands it is not a strategy to reduce emissions, but a strategy to sabotage of the state's Act on Climate targets and represents predatory delay.

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