

To: Joint Committee on Carbon Reduction  
From: Tom Bowerman  
Date: March 6, 2019

Chair Senator Michael Dembrow  
Chair Representative Karin Powers  
Members of the Committee

I commend your committee for dedication to improve and pass HB2020. I support its passage. I will not be restating the extensive and eloquent reasons in support here. Below are comments specific to HB2020 language which may improve the purpose, functionality, and durability of the bill.

1. Section 6. Civil penalties (1) Pertaining the clause " the Director of the Carbon Policy Office may impose a civil penalty not to exceed \$\_\_\_\_\_ on a person for any of the following:" Comment: A common problem with setting penalty ceilings are that penalties are insufficient as a deterrent when avoidance may involve large sums of money. Consequently, penalty for intentional avoidance or failure to acquire allowances in other jurisdictions carries a ratio type formula of "not to exceed 3:1 penalty plus the original allowance requirement." In some applications, where a specific penalty cap is necessary avoid delay and to motivate compliance, penalty should include a temporal component such as a per-day clause. California Air Resources Board uses a "not more than \$25,000 per day" penalty. It is not uncommon for monetary policy language to include an annual inflationary adjustment clause.

2. Section 7 (1)(a) CO2e reduction targets: Comment: The contemporary best scientific data strongly suggests we need to be on a steeper reduction slope although the political exigencies currently suggest it is better to get started on these more modest targets and adjust as self-educate as California has, that reductions are both doable and beneficial. These targets assigned in HB2020 are an acceptable but should not be diminished in the final bill.

3. Section 8 (9)(a) Definition: "A reduction or avoidance of emissions of any air contaminant other than a greenhouse gas": Comment: Why is "other than" used in this context? Reduction of CO2e is the goal of the Act, I see no purpose in stating it is not a benefit to reduce it. Attempting to understand the author's purpose here, I would guess the term "co-benefits", incidental to the act but meaningful to health and quality of life may be the term to use to describe parallel benefits from the bill purposes.

4. Section 8 Definitions. Comment: "Emissions intensive trade exposed processes or entities" is used in Section 18 but should probably be included in Definitions Section 8, as a new (13)?

5. Section 8 (13) Definition "General market participant". Comment: This definition seems like a worrisome category capable of becoming a market manipulator profiteer, the very role which will poison public confidence. Could this category be more carefully considered in terms of permissible entry as an entity participant?

6. Section 9 (4)(c) Surrender Penalty Clause. Comment: This compliance surrender penalty clause seems ambiguous. The implication is that an additional sum of compliance instruments be surrendered for failure to surrender the original quantity required, but for this clause to be effective it needs clear

specificity. California AB32 possessed as much as a 3:1 penalty untimely surrender of compliance instrument plus the original allowance obligation.

7. Section 9, Omission. Comment: Not covered in implementation here is ongoing concern that accuracy of emission computation which evolves with best practicable science. For example, for some time natural gas has been proclaimed by that sector as "the clean fuel" while evidence has accumulated that fracking and handling of natural gas is actually equivalent to coal energy. The solution to this concern can be addressed through recognition of 'life cycle analysis' protocol. The language brought into the 2016 bill should be considered, here modified to reflect the new proposed administrative agency:

The Carbon Policy Office, by rule, shall proceed to require covered entities required to report covered emissions to include fugitive and energy expended in extraction, waste, transport, and storage; based on best available practice, with full adoption not later than 2025. Implementation of this clause shall employ ISO 13064 standards for guidance, shall not double-count emissions, and the Carbon Policy Office may issue uniform standards based on industry averages derived from credible research to assist computation methodology.

7. Section 10 (2)(e). Comment: Couldn't this convoluted language be effectively shortened to: "Greenhouse gas emissions attributable to a consumer-owned utility if the three-year average of the annual greenhouse gas emissions attributable to electricity for consumption in this state is less than 25,000 metric tons of carbon dioxide equivalent."

8. Section 14 (2). Comment: What is the purpose of a funded "voluntary renewable electricity generation reserve"?

9. Section 18 (2). Comment: In the section "...or an electric generating unit, may not receive allowances...", "may not" should be changed to "shall not" to avoid ambiguity in the context of this clause.

10. Section 18 (5)(c)(A). Comment: In this above section regarding calculating the allowances on the three prior year average, how do you monitor and/or prevent fabricated or exaggerated emission accounting procedures 2019 & 2020? Could there be a penalty clause sufficient to tamp down the temptation?

11. Section 18 (6)(a)(B). Comment: The sub-section assumes only an increase in leakage risk, but the risk could likewise decrease based on changes in industry standards or practices, so this clause should add "...or decrease...". Furthermore, the policy could include incentives which nudge EITEE to 'best practices.

12. Section 18 (6)(c)(A) and (B): Comment: The phrasing here seems contorted and could be made more clear.

13. Section 29 (2)(d) Make use of domestically produced products. Comment: I see no definition for domestically produced products. Is this Oregon or USA? Is it not problematic to mandate trade with a non-affiliated state which is not participating in a greenhouse gas reduction policy above an international jurisdictional emission reducing partner, say Quebec or when British Columbia joins?

14. Section 30. Comment: When will the blank spaces of participation rates be filled in?

15. Section 31 Uses of Climate Investment Fund. Comment: There appears to be omission of Research and Development Practices language in this bill? Consider adding clause (10), something like:

"(10) Funding of research and development of climate stability and emission reduction techniques, technologies and applications including empirical evidence from other jurisdictions, receptivity to new information, and adaptability in achieving the purposes of this 2019 Act for purposes of efficiency, cost-effectiveness and public co-benefits."

16. Section 34 (3)(d)(C). Comment: Same comment as #13 above related to domestic protectionism over trading with partners who possess equal status in emission reductions.

15. Section 35 (1). Comment: Why appropriate to Higher Education Coordinating Commission instead of the Department of Health and Human Services?

16. Section 39 (1) Biennial Auditor Selection. Comment: Would it be better to have an independent party select the auditor instead of the entity being audited? It seems incongruent to have the auditee select the auditor. The Secretary of State has statutory audit authority and capability, and perhaps save costs of auditor selection logistics.

17. Section 45 Energy Burden Report. Comment: "Burden" is an unfortunate implied presumption in this context. The report should change to "...Burden and Benefit Report".

18 Section 53 Statutory Amendments (7). Comment: This sub-section draws attention that there is no functional life cycle analysis or "best practices" language in this Act, yet. In calculating the greenhouse gas emissions associated with fossil fuel, as with electric energy, the calculation should include issues of transportation and fugitive emission components based on applicable best practices.

19. Section 55 (3)(a). Comment: How is this not a big loophole?

20. Section 56 generally. Comment: This section should explicitly include 1) Demonstration of need; 2) include "Should be consistent with Oregon's carbon reduction goals", and 3) strike the present wording "this subsection is not subject to judicial review."

21. Section 58 (2)(c). Comment: Typographical error, "in" should be "is".

General Comment about Agriculture and Forestry Sectors: In disclosure, I offer the following view as an owner of 800 acres of low elevation western Oregon farm and forest land. The state of the science and economic cost-benefit to both of these sectors is evolving rapidly but appears sufficiently unsettled to make confident assessments and policy commitments. Additionally, resistance from these sectors is intense while their overall fossil fuel emission contribution is disproportionately small. While I believe both forestry and agricultural sectors have considerably more climate risk than their spokespersons publically acknowledge, and that climate stability solutions offers these sectors considerably more benefit than burden, if I were negotiating emission pricing on fuels for these sectors I would recommend a five year exemption to specific to bona fide sector uses similar as we do presently for agricultural exemption for highway fuel taxation. From a negotiating standpoint, if feasible, I would trade this exemption for these sectors in exchange for withdraw of opposition. Nevertheless, I firmly believe

evidence will become overwhelming to these sectors that their role in low carbon fuels will be both necessary and a benefit to their long term existence stability.

In closing, reputable opinion polling shows that given a choice, Oregonians support the HB2020 Cap and Invest concept above a 70% level. The scientific data is overwhelming that we must initiate meaningful policy immediately. The Economic evidence from other jurisdictions shows that this policy provides significant cost-benefit.

People who deny the need for action or think there is a better option are not paying attention. Legislators who say Oregon is too small to make a difference exhibit a double standard when accepting small campaign contributions. Those who agree climate change is an approaching crisis but argue that a cap and trade isn't the right policy are deflecting responsibility in lieu of responsible analysis.

I have studied the various policy options extensively and the HB2020 policy model has the greatest prospect of success and benefit for our state above all the alternatives. I urge you to pass this bill, with some small improvements, this legislative session.

Tom Bowerman