Comments on Draft Summary of the Market Marketing and Analysis of the Washington State Climate Commitment Act

Eric Strid July 8, 2022

Thank you for the opportunity to comment on the <u>Vivid Economics marketing</u> and modeling analysis of the Climate Commitment Act (CCA).

**Summary:** This report is significantly misleading, in that major assumptions about other planned emissions policies are not highlighted or clarified. As with Ecology's other CCA information, the reader is left with the impression that CCA will close all remaining gaps between business-as-usual emissions and the proposed emission cap, which is not true at all. Without other aggressive policies for at least the transportation sector, the inelasticity of fuel prices would either drive allowances prices far beyond the proposed ceilings, or the cap would have to be adjusted higher.

By far the largest emission sector covered by CCA is transportation. Section 3.2.1 in the report states, "The sensitivity analysis considers an alternative scenario which covers two major policies in the transportation sector." It is unclear to what degree these two policies are part of which scenario calculations. The first major policy is the California ZEV program (requiring light-duty EV sales to reach about 8% by 2025) plus California's Advanced Clean Cars II, which will increase zero emission vehicle (ZEV) sales of passenger cars, light-duty trucks, and medium-duty vehicles to 100 percent starting in 2035. The second major policy is the Clean Fuels Standard, which reduces the GHG emissions of most transportation fuel sectors by 20% by 2038.

The sensitivity analysis parameters are unclear, and the application of these two major policies is unclear. "The proposed rules for these two programs are excluded from the baseline configuration for other scenarios as they are not yet final." But they are final except for the California Advanced Clean Cars II.

What would be far more useful is analyses of a set of relevant scenarios:

- business-as-usual with the existing ZEV and CFS programs;
- a scenario that adds California's Advanced Clean Cars II;
- a scenario that accelerates Clean Cars II to 100% by 2030;
- a scenario with CCA and no Clean Cars II;
- and a scenario with CCA and Clean Cars II; etc.

These would demonstrate which policies are needed and which do the heavy lifting. Numerically, that would also indicate that achieving the state's 2030 goal will require 100% EV sales closer to 2030 than 2035 (or other strong policies.)

Section 3.4 appropriately notes that "The sensitivity analysis focuses on the transport sector because this sector accounts for nearly 45% of covered emissions and has a relatively high technology switching friction. The default calibration of the transportation sector was chosen to represent a plausible pathway of electric vehicle adoption in the future." The footnote for this sentence states, "Under the default calibration of technology adoption frictions, adoption of electric vehicles (including hybrids) reach 41% of the total passenger vehicle stock by 2030." (This is unclear whether "hybrids" refers to gasoline-only hybrids or pluggable hybrids.) 41% is a convenient choice because fewer allowances are needed to achieve the cap. However, 41% implies a linear ramp to 100% EV sales around 2030.

Thus the scenarios seem to assume at least the California Advanced Clean Cars II policy; otherwise, the allowance prices would be well above the price ceiling. The report is also unclear about other sector policies, such as the recent building code changes banning new natural gas hookups. Section 4 doesn't provide much insight, and section 4.2.2.6 cites a list of academic papers on price elasticities without stating what elasticities were used in the modeling. In 2014 the EIA noted a short-term price elasticity of gasoline around -0.02. In other words, price has very little impact—a 10% increase in price cuts consumption only around 0.2%. The EIA also noted that price elasticity is difficult to separate from other factors affecting consumption.

## **Conclusions:**

- Policymakers should demand better modeling of the CCA, to understand what other policies are necessary. As I previously opined, Washington state lacks a comprehensive, long-term plan for energy and emissions. A comprehensive plan would include aggressive policies for EV adoptions and electrification of buildings, including modeling of policy interactions such as with CCA.
- Ecology should exercise greater diligence with reports from consultants who distract us from the main topic, feature their bells and whistles, and won't disclose their proprietary data or calculations.

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