AIA
Washington Council

December 10, 2020

Washington State Department of Commerce
1011 Plum Street SE
Olympia, WA 98504-2525

Re: Comments on the Second Draft State Energy Strategy

Dear Members of the 2021 State Energy Strategy Advisory Committee:

Thank you for the opportunity to submit comments on the second draft of the State Energy Strategy. We appreciate the work your committee has put into this draft and especially the thoroughness with which you have identified the action areas necessary to significantly reduce greenhouse gas emissions across all of our state's energy sectors.

AIA Washington Council represents architects and the architecture profession across Washington, and these comments are the work of AIA Washington Council's Climate Committee. Our comments primarily address Section D on the built environment because that is where we engage the most with climate policy. We agree with other commenters that the draft Strategy would benefit from clear prioritization among its many recommendations as well as a timeline that lays out the optimum order for implementing changes. That said, we strongly endorse the Strategy's focus on total market transformation through deep decarbonization.

Below are specific comments and questions regarding the second draft for your consideration.

Embodied Carbon

- We believe it is essential that Washington address embodied carbon beyond state-funded buildings (via the pending Buy Clean/Buy Fair legislation). This would most likely be achieved by adding embodied carbon requirements to the state energy code, which would require state legislation to direct the building code council to incorporate it.

Preferencing Washington's Manufacturers

- As we electrify Washington, the state's products will have preferable embodied carbon levels and EPDs. We believe the state should study how zero-carbon electricity would impact Washington's manufacturing sectors and their products and then promote these lower-carbon materials to provide preference for in-state manufactured products. Similarly, the state could place the same emphasis in its work to transition manufacturing away from fossil fuels. This is vaguely discussed in the draft strategy. But this focus should be central to Washington's Clean Buildings program and any embodied carbon policy, as it will incentivize in-state manufacturers to participate in the transition. As carbon emissions close in on zero by 2050, state requirements related to embodied carbon would become, essentially, a Buy-Washington effort.

Decarbonization Policy Framework

- Consider adding a building and manufacturers support program such as British Columbia has for its step code and incentive programs. Section D, 1.3, page 59-60, starts to address this, but it is unclear to what extent.

Off-site Renewables

D, 2.2, page 63-64

- The state will need to figure out how state policy will approach off-site renewables; we do not see that addressed here.
- The Zero Code is an option as part of the 2021 IECC. The Zero Code would require owners of new buildings to offset all electricity with new (or at least high quality and dedicated) off-site renewable energy. This means that building owners would choose between above-code efficiency and buying off-site renewable energy to get to net zero energy. As a result, owners would share the utilities' capital costs in providing 100% renewable energy at the time of capital expenditure.

Higher Education Fuel Switching

- Consider work to transition the state's colleges and universities off fossil fuel and steam systems and onto electrified, renewably powered systems. This is a significant capital expenditure, but it overlaps with the energy reduction requirements under the Clean Buildings Act, so funding both should be a priority. If the state funds a few of these transitions in the near-term, it is likely that the universities could monetize these efforts to provide other in-state and out-of-state schools with products or services that help them make the same transition. Every university in the country has similar issues around electrification and de-carbonization. Partnerships with ESCOs or a C-PACER-like funding program might be able to assist with the capital costs.

Building Electrification

- D, 2.1, page 61-62: the Clean Buildings Act does not address electrification. This is a significant shortcoming that should be added by the legislature via amendment to the Act.

Refrigerants

- D, 1.4, page 60-61: the section on refrigerants is important, but there should be a more clearly defined emissions limit and an effort to incentivize manufacturers to find other low global warming potential alternatives.

Integration with Local Planning Efforts

- We would like to see action items that emphasize integrating state efforts with local planning efforts. For example, could local comprehensive plans be asked to address the action items from the State Energy Strategy and translate that into action items on a local level? Having a clear connection and a more cohesive resource would be helpful.

Other Notes

- Page 8, Figure 1, Historical and Projected Gross Emissions in Washington State. The COVID-related gap in emissions on this chart may imply that total economic shutdown is desirable. A more expansive note could provide more nuance and prevent this from being misstated by opponents.

- B, 2.1 page 26 (second to last paragraph): there is no evidence that pipeline gas can be decarbonized, yet that is stated here without a footnote or other reference.

- B, 2.2, page 28: "The Gas in Buildings Scenario sees a 25% drop in total energy demand by 2050. In contrast to the Electrification Scenario, customers replace gas consuming appliances with more efficient modern gas appliances. Differences in the pace of electrifying transportation accounts for the largest differences in demand between the scenarios." It is our understanding that gas tops out near 100% efficient while heat pumps are 200% or more efficient.

- B, 2.4.2, page 36: "Vehicles are the largest energy-consuming infrastructure purchase that many customers and businesses make." We believe this statement should consider the cost of buildings.

- B, 3.1 page 36-37: for the transportation sector, there is no discussion of how we can maintain roads without the gas tax as we electrify our transportation system. There is also not a thorough discussion on the transition from gas to hydrogen to electric. Presumably, there will be gas stations, hydrogen stations, and EV stations all at the same time, but the coordination of this will be extremely important from a policy perspective.

- B, 3.4, page 39, last bullet under "Action": "Gas generators in Washington burn de minimus quantities of gas after 2030…". This needs clarification – does it refer to backup, building-scale generators or utility scale generators?

- D, 2.2, page 53 (second Action bullet): Legislation (E3SHB 1257, page 22) was already passed related to EV infrastructure in new buildings. This will be part of the 2018 state code in the next few months. (When the legislature directs the State Building Code Council to change something, the Council does not need to follow the regular three-year code cycle).

- D, page 57, Figure 20. Scale and Pace of Energy Use Reductions Required to Meet Economy-Wide Emissions Limits: Should the Electrification and Gas in Buildings columns include the embodied carbon of energy infrastructure and emissions from fracking leakage?

- D, 1.2, page 60: as the state works to establish clear energy utilization and greenhouse gas emissions limits for buildings, it needs to be sure to consult with practitioners within each industry to make sure we are setting achievable paths that allow each segment to meet its goals.

Thank you for the opportunity to comment on the draft Strategy.

Best regards,

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