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Tiffany Floyd
Air Quality Division Administrator

Michael Brown
Environmental Resources Discipline Lead

Paula Wilson
Rules Coordinator

Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

RE: March 2018 Draft State of Idaho Volkswagen Beneficiary Mitigation Plan

Dear Ms. Floyd, Ms. Wilson and Mr. Brown:

The Idaho Chapter Sierra Club once again appreciates the diligence and inclusiveness with which the Idaho Department of Environmental Quality and all stakeholders are pursuing this important development of the State of Idaho's Volkswagen Beneficiary Mitigation Plan ("Plan").

We also appreciate that the most recent Plan incorporates several of the stakeholder comments and suggestions. We believe the revised Plan builds upon the successful foundation of the Draft Plan and submit these comments on behalf of our 3,600 Idaho Chapter Sierra Club members statewide. As before, our comments urge the DEQ to spend the \$17.3 million allocated Idaho by investing 15 percent on light-duty electric vehicle charging infrastructure and the remaining 85 percent on electric vehicle procurement in the project areas identified by the agency.

Idaho Air Quality

We concur with the Plan's stated goals to reduce the risk of Idaho nonattainment designations and to address their contributing sources – PM_{2.5}, NO_x, and other pollutants that are listed under the National Ambient Air Quality Standards (NAAQS). However, we agree that NO_x reduction opportunities should be a priority given the transportation sector is a primary driver of direct human induced ground level ozone. While funds from this settlement cannot readily address non-road NO_x emissions and other air-quality threats (such as fires or industrial emissions), we believe these funds can realize immediate and long-lasting benefits through reducing vehicle-based NO_x emissions, particularly in Southwest Idaho.

While it is important that the benefits of Idaho Settlement investments accrue to all, it is also important that investments are made or prioritized in ways that recognize the most urgent needs of those parts of Idaho either at nonattainment or at most risk of becoming so.

Goals and Priorities

In the project evaluation matrix, the *total points possible* allocation method in the Draft is structured well overall. However, we have some recommendations and questions we would like to see addressed:

- The **cost effectiveness** criteria should include "projects that reduce the most NO_x emissions for the least dollars spent" that are measured by the *lifetime* costs and emission reductions of the vehicle rather than only the upfront cost of the technology and *lifetime* emission reductions. Including the lifetime measure singularly for emission reductions prevents a full scope of financial



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analysis for each project, disregarding the cost savings that can be leveraged for future clean transportation investments by the project beneficiaries.

- We recommend against the 10 points allocated to **implementation time** (how quickly actual emission reductions can be achieved). It seems counterproductive to the overall scope of the project, which is to maximize emission reductions. We would prefer to see priority given to innovative and thoughtful planning for investments that achieve deep emission reductions as opposed to projects that can be quickly implemented but achieve lesser emission reductions over time.
- With regard to the **population impacted** criteria, which has an ample 25 possible points, we believe measuring this metric should include an analysis of technology specific population impacts. For example, the population served by school buses are more susceptible to the health impacts of diesel emissions than the general population as a result of their age. Another example is that public transit riders generally hold marginalized identities that face higher rates of health impacts from transportation pollutants.
- Regarding the **applicant experience** criteria, we agree there is value in acknowledging that applicants “demonstrate experience and existing administrative and programmatic structure in place for implementing diesel reduction or offset projects.” We note that with these fast-changing technologies, track records may be significant, but the value of innovation and potential of new technologies should not be overlooked.

Implementation Plan

Light-Duty Zero-Emission Vehicle Supply Equipment

We agree with the DEQ plan to use fund “to advance electric vehicle adoption throughout Idaho, as opposed to other ZEV options, by establishing a comprehensive charging network for EVs, which shall be known as the Electric Vehicle Supply (EVSE Program),” and that “installing the charging network and implementing the EVSE program is an eligible mitigation action consistent with the energy use goals and objectives of the state of Idaho. The Trust allows Idaho to set aside 15 percent of the state’s allocation (approximately \$2.83 million) for light-duty ZEV supply equipment.”

We support DEQ’s ongoing partnership with state stakeholders Office of Energy and Mineral Resources, Idaho Transportation Department, and Division of Purchasing to analyze the most appropriate options for mapping out Idaho’s future DC EV charging infrastructure. However, with regard to the Plan’s proposal that “Funds for EVSE will be available statewide, with an emphasis on priority areas identified using the ITD alternative fuel corridor map (Figure 7) on Plan P. 12, we note the absence of Idaho Power’s map of tiered priority areas for DC fast-charging infrastructure siting, please consider including this map as a guide for locale opportunities. We also highly encourage continued attempts to get information about other partners working on charging infrastructure, both in Idaho and boarding states, to ensure complete EV corridor development and minimize duplication of investments.

We also ask for clarification or supporting documentation underlying the statement (P.14) that “Idaho estimates that each charging station will result in a reduction of about 12 tons of NOx over the life of the station, resulting in an estimated reduction of about 360 tons of NOx.” A reference to the source of a reliable formula or the calculation method(s) would be helpful.

As stated in our comments on the Draft Plan, we encourage deployment of this portion of the Settlement funds as soon as practical. Idaho’s allocation of these funds will help inform decisions by other public and private parties considering similar or complimentary charging infrastructure investments.

Timely deployment of investments in statewide EV charging infrastructure also promise the most immediate and significant emission reductions, particularly given that this DC fast-charging technology is actionable now. Focusing the first few years of funding in this project area then provides the benefit of most reduction per dollar spent and an expedited timetable for those reductions to be achieved. In addition,



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a focus on this project area while holding off on other investments will allow unfolding electric vehicle technologies more time to mature to market ready and financially competitive options.

Timely installation of DC fast charging-stations can immediately and meaningfully address “range anxiety” by providing charging infrastructure that facilitates EV commuting between distant metropolitan areas using existing EV technologies. While the proliferation of level 2 chargers has helped facilitate EV travel within metropolitan areas, there remains dire need for DC fast-charging infrastructure to allow for more EV owners to make long-distance trips. Additionally, these charging stations will also provide valuable public education opportunity through helping make more Idahoans aware of the affordable and clean transportation options on the market today.

Subsequent Project Areas (4.2, 4.3, 4.4)

We believe that electrification of transportation in all public and private sectors must remain a priority given the unparalleled lifetime emission reductions as opposed to other fossil fuel options. Additionally, EVs realize significant savings from reduced lifetime maintenance and operation costs, provide a critical role in future clean transportation investments opportunities by the beneficiary, and support the distributed, clean grid of the future. We encourage that fuel preference should be shifted away from fossil fuels to electric for each of the project categories included in the Plan where the technology exists, like the explicit electric fuel preference listed in the for airport equipment (4.3). In particular, in direct relationship with our comments about the impacted populations, the Sierra Club would like to see a fuel preference for bus investments in the Plan.

4.2 Trucks and Buses

Prices for all electric buses are dropping. Over the last 4 years, bus costs from two of the leading electric bus vendors, Proterra and BYD, have dropped \$200,000 to \$250,000 or 20-25% to about \$750,000. Both makers estimate further cost reductions of about \$100,000 by 2022 to \$650,000. This decline is consistent with CARB’s recent white paper on battery costs forecasting a \$100,000 or more decrease by 2020 and continuing to decline through 2030. Additionally, adoption of electric buses is increasing with major purchases and contracts by counties and transit agencies across the country. Finally, the costs from maintenance and operation drop significantly for electric buses when compared with new diesel buses, providing long-term financial savings for the project beneficiaries, opening up opportunities for continuous investments in new clean transportation technologies. With the sum of these benefits and the pending emergence of electric bus conversion technologies, we believe holding off on initial investment of these funds to allow more time for these technologies to mature will maximize the benefits procured through the VW settlement funds for the state of Idaho.

As you know, we agree with the emphasis on “maximizing the amount of diesel emissions reduce each year per dollar spent,” but we also believe it is important that this metric be applied *over the lifetime of the vehicle* so that it best reflects the efficacy of the investment. Therefore, the cost should include both the upfront purchasing cost and the estimated lifetime costs of the vehicle (maintenance, operation, fuel).

We would like to ask for transparency for the expected NOx reductions for each of these vehicle categories to be broken down by fuel type. With no fuel preference, it is unclear to us how DEQ arrived at the calculations for the estimated total lifetime reductions, especially in categories where DEQ held open space for both alternative fuel and all electric engine investments. We want ensure that we have clarity around what each technology type is projected to achieve for emission reductions so that we can have a better understand of how each technology will compete based on the criteria in the project evaluation matrix.

DERA funding



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Funding from the Diesel Emission Reduction Act (DERA) is unpredictable and the Plan should reflect such uncertainties as continued Congressional appropriation. The Plan attributes (Table 2) an estimated 71 tons of NOx emissions due to DERA-related investments, but again, the future of that funding remains a large unknown. The Plan should be prepared to re-deploy those funds to other Eligible Mitigation Action (EMA) categories if needed.

The Plan indicates (P. 15) that “Idaho expects to spend 15 percent of funds for projects under the DERA option” and that “Idaho analyzed a sample of eligible projects that include replacing school buses, short-haul trucks, transit buses, and construction equipment with new diesel vehicle or equipment. The estimated total lifetime emission reductions from this group are approximately 71 tons of NOx.” Similarly, it would help to explain the calculations (also P. 15) behind the statement that “The estimated total lifetime reductions from this group (locomotives, airport equipment, and forklifts, Section 4.3) are approximately 54 tons of NOx.”

Thank you for providing additional information related to the methodologies and assumptions related to key cost/benefits calculations.

On behalf of the Idaho Chapter Sierra Club, thank you for continuing to provide the Sierra Club and other stakeholders the opportunity to participate meaningfully as this process moves forward. The Idaho Chapter Sierra Club remains enthusiastic about participating in this important process, and is eager to learn more about next steps regarding public input to the Idaho Beneficiary Mitigation Plan, including scheduling for future meetings.

Best Regards,

Ken Miller
Clean Transportation Chair
Idaho Chapter Sierra Club