



May 11, 2017

VIA ELECTRONIC MAIL

Alabama Department of Environmental Management
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**Re: Gasp and Energy Alabama's Comments on the 2016 Volkswagen Settlement
Beneficiary Mitigation Plan**

Dear Sir or Madam,

Gasp¹ and Energy Alabama² (we) respectfully submit the following comment to the Alabama Department of Environmental Management (ADEM) regarding the Volkswagen Settlement Beneficiary Mitigation Plan (BMP). We appreciate the opportunity to weigh in on the BMP. We look forward to ADEM developing a BMP that will achieve measureable, long-term benefits for the State of Alabama.

I. Purpose

As groups advocating for the growth of sustainable energy, we and our members have a vested interest in the success of the Volkswagen Settlement Beneficiary Mitigation Plan for the State of Alabama. Collectively, we believe the BMP offers a rare opportunity to affect large scale, positive change in Alabama's transportation sector. The BMP, if designed correctly, also positions the State to best take advantage of changes already underway and offset required infrastructure costs.

II. Principles

In order to best reduce emissions, we believe the three most important principles to consider when developing the BMP are:

1. Pursuing actions with the largest emissions reduction per dollar spent;

¹Gasp is a non-profit health advocacy organization fighting for healthy air in Alabama. We strive to reduce air pollution through education and advocacy — because Alabamians deserve clean, healthy air.
<http://www.gaspgroup.org>

² Energy Alabama is accelerating Alabama's transition to sustainable energy. Energy Alabama accomplishes its mission by educating at all levels, informing smart energy policy, building the next generation workforce, and providing technical assistance to deploy more sustainable energy.
<http://energyalabama.org>

2. Pursuing actions that reduce future stranded infrastructure costs; and
3. Pursuing options that lend themselves to clear metrics and demonstrable results.

III. Recommendations

At the highest level, electrification of transportation is the most effective and long lasting method to achieve emissions reduction. Comparing the energy yield of gasoline and electricity against the achievable mileage per gallon or per kilowatt hour demonstrates that electrification reduces energy consumption 78%, with an associated reduction in emissions.³ Additionally, electricity is the only fuel source than can become cleaner over time without the assistance of additional technology.

Within that context, Gasp and Energy Alabama respectfully submit the following recommendations for the Beneficiary Mitigation Plan.

1. Emphasize electrification of all transportation

We support projects that encourage the electrification of all types of transportation including, but not limited to, passenger vehicles, fork lifts, school buses and 18-wheelers. Furthermore, we support pilot projects for the electrification of larger vehicles such as bus fleets and other transit operations. Support for the electrification of transportation should also include its related infrastructure such as charging stations.

Investing in projects that simply reduce emissions with existing technology risks creating stranded assets and places Alabama at a competitive disadvantage to its peers. Lastly, investment in the electrification of public transportation not only significantly reduces emissions, but also provides more equity in the sharing of the BMP's benefits.

2. Work with utilities to share data

We support projects that share data with utilities and work to integrate into their systems. By working with utilities additional emissions reductions can be achieved by leveraging utility investment, aligning mutual benefits (IE, nighttime charging), and enabling advanced technologies such as the emerging field of 'vehicle-to-grid' integration.

With utility data sharing the BMP, and as a consequence ADEM, can affect even larger scale air quality improvements currently beyond its reach. Synchronizing benefits with utilities accelerates electrification and increases utility efficiency and cost effectiveness, both of which further reduce emissions.

3. Track and report emissions reduction to the public

We support projects that are easily trackable and reportable. Here electrification provides another benefit in that most electric vehicle chargers meter the energy consumed at the charger. Metering allows ADEM to track the energy consumption of chargers it has supported through the BMP and to quantify related air quality improvements. Electric vehicle chargers, if placed strategically,

³ Seidman, N., "Getting More Mileage from State VW Settlement Funds," Regulatory Assistance Project, 24, April 2017. Available at <http://raponline.org/blog/getting-mileage-state-vw-settlement-funds/>. (last visited May 4, 2017).

leverage private investment in electric vehicles and provide additional emissions reduction far beyond the original public investment.

Investing in projects with publically available data further encourages private investment in the projects with quantifiable benefits. It also provides interested members of the public a basis for which to make decisions for their own benefit. We believe measureable results can provide substantial support for public education efforts of organizations and government across the state.

4. Invest in projects with large immediate emissions reductions for heavy-duty transportation, recognizing the air quality⁴ and health impacts⁵ such upgrades would have.

We understand that the electrification of transportation will not happen overnight. Therefore, we support projects that are quickly deployable to reduce emissions from heavy-duty diesel engines. Examples of projects include:

- i. Heavy-duty diesel trucks should be incentivized to idle less than 5 minutes in any consecutive period;
- ii. Any diesel-powered vehicle with a gross combination or gross vehicle weight rating of over 10,000 pounds should be incentivized to undertake an annual opacity tests for visible smoke; and
- iii. Any diesel-powered vehicle with a gross combination or gross vehicle rating of over 10,000 pounds should be incentivized to install:
 - Diesel oxidation catalysts: this would reduce PM, hydrocarbons and CO₂.
 - Diesel particulate filters: this would reduce PM by trapping it with filters.

⁴ Diesel engines remain one of the largest sources of fine particulate matter. The exhaust from diesel vehicles involves a highly complex mixture of over forty gases and fine particles. Primary pollutants include particulate emissions (PM), carbon monoxide (CO), carbon dioxide (CO₂), Nitrogen Oxides (NO_x), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). According to EPA's National Emissions Inventory for 2008, heavy-duty diesel vehicles contributed to 36 percent of the PM, 30 percent of the NO_x and 26 percent of the SO_x from the transportation sector, yet comprise only 2 percent of the total number of vehicles on the roadway. See "Heavy-Duty Diesel Engines: Trucks and Buses Air Quality Impacts," New Hampshire Department of Environmental Services, 2013, *available at* <https://www.des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-34.pdf> (last visited May 4, 2017).

⁵ In 2012, the International Agency for Research on Cancer, part of the World Health Organization, revised the classification of diesel engine exhaust to a definite carcinogen for humans based on sufficient evidence that exposure is associated with an increased risk for lung cancer. Diesel emissions can also aggravate or lead to heart and lung disease, asthma and other health problems. See "Diesel Vehicles and Equipment: Environmental and Public Health Impacts," New Hampshire Department of Environmental Services, 2013, *available at* <https://www.des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-44.pdf> (last visited May 4 2017).

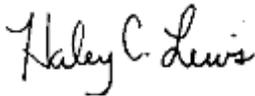
- Selective catalytic reduction: injecting urea into the exhaust gas stream reacts with a catalyst to convert NO_x emissions to nitrogen gas and oxygen.

IV. Conclusion

We strongly support ADEM's efforts to develop a Beneficiary Mitigation Plan and the benefits it will bring to air quality, sustainable energy, and all residents of Alabama. We hope the final plan will reflect the aforementioned recommendations and are available to assist further should ADEM request.

We appreciate the opportunity to comment.

Sincerely,



Haley Colson Lewis
Staff Attorney
Gasp



Daniel Tait
CEO
Energy Alabama

CC: Lance LeFleur, Director, Alabama Department of Environmental Management