HB's 6030 and 6031 AAC Zero Emissions Vehicles

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Co-Chair Doyle, Co-Chair Reed, Committee Members and staff. My name is Joel Gordes and I am an independent energy consultant purely representing myself. I am sorry I cannot be with you today in person to answer any questions but I appreciate the opportunity to comment on these bills.

Most of my environmental colleagues will do a fine job of covering the positive environmental aspects of providing buy downs for electric vehicles, and I agree with them on this. What I would like to add to this discussion are additional arguments in favor of this but based upon energy security considerations at the national, state and personal level.

Dr. Barry Commoner, a noted environmentalist developed Fours Laws of Ecology; the first being "Everything is connected to everything else." As strange as it may sound, climate change mitigation via enhanced use of electric vehicles may lessen future involvement in conflicts that have drained this country of blood and treasure. It is not just myself saying this but, rather, US Department of Defense officials who issue what is called the Quadrennial Defense Review: In it, they state:

> Climate change may exacerbate water scarcity and lead to sharp increases in food costs. The pressures caused by climate change will influence resource competition while placing additional burdens on economies, societies, and governance institutions around the world. These effects are threat multipliers that will aggravate stressors abroad such as poverty, environmental degradation, political instability, and social tensions – conditions that can enable terrorist activity and other forms of violence.[1]

For those who may be against what they see as "subsidies" for these vehicles, it is vital that they understand that since the mid-1940's there has been subsidies for oil in the form of defense spending to keep open our access to oil in the Middle East. From 1980-1991 alone multiple sources estimate we spent from $30 to $50 Billion dollars per year to that end.[2] While today there are rosy forecasts on increasing US oil reserves due to enhanced recovery techniques, the ability of some nations to produce oil for less than $10/ barrel can force those methods of recovery, which may only compete with oil at $50/barrel or higher, to shut down. Our long-term predictions on many energy aspects do not have a good record and we may find ourselves in a deep dependency position again.

Finally, on a more personnel level of security, the more people who purchase electric vehicles may be able to aid in lowering the cost of them for everyone. Aside from cleaning the air, they may be able to better balance the output of power generators via off-peak charging and increase capacity factors which could decrease rates. An added bonus would be the use of the storage batteries in these vehicles to run critical equipment at homes during periods of electric grid outrages. Such systems are already advertised by Nissan as possible for use with their Leaf model automobile.[3] Such vehicles, which may be able to run home heating systems during emergencies might also find favorable treatment by our insurance companies. This should be nurtured.

Thank you for the opportunity to comment.

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[1] *Quadrennial Defense Review: 2014*. US DoD. March 14, 2014. p. 8.
[2] Mass, Peter. *The Ministry of Oil Defense*. Foreign Policy. Aug. 5, 2010 and Institute for the Analysis of Global Security. *How much are we paying for a gallon of gas?*
[3] See http://www.nissan-global.com/EN/TECHNOLOGY/OVERVIEW/vehicle_to_home.html