From: Gray, Laura [Laura.Gray@vermont.gov]
Sent: Friday, April 15, 2016 10:51 AM
To: Johnson, Justin
Subject: Fw: Incentives
Attachments: Incentive Proposal 12.30.15 MB Edits.docx

another! secret meeting?

From: Cole, Chris
Sent: Monday, April 11, 2016 3:26 PM
To: Gray, Laura
Subject: Incentives

Here you go,….

Proposal for a Vermont Consumer Purchase Incentive for EVs
Prepared by VTrans, December 30, 2015

I. Approach and Funding Source

Increase the motor vehicle registration fee by $.50 to generate $300,000 annually for an electric vehicle incentive program, with the purpose of creating a market entrance point for EV purchases by Vermonters of all income levels, boosting the growth in EV sales, and helping our EV market reach a tipping point.

II. Potential Structure for the Program *(informed by successful programs in CA, MD, MA, CT etc.)*

a. Structure incentives as a rebate delivered at the "point of sale"
b. Announce a multi-year program to give potential consumers predictability and to create more impact on the early EV market in VT
c. Create two tiers of incentives to boost the adoption of the greenest EVs with the largest batteries (in 2017 several models will go 200 miles on their batteries)
    i. Tier One: $1500 for batteries with a capacity of 18 KWh and above (e.g. all electric vehicles like the Nissan Leaf, Chevy Volt and Bolt, Ford CMAX and others
    ii. Tier Two $750 for batteries with capacity of less than 18 KWh (e.g. Prius plug-in and other hybrids. Used vehicles could also be included at this level.
d. Include a small dealer incentive per vehicle incentive to encourage knowledgeable and supportive customer service
e. Structure eligibility to benefit middle and lower income Vermonters (see below)
f. Inform the public as the capped funding goes out in incentives, to increase excitement and rapid uptake.
g. Step the incentive down as sales rates pick up and the market becomes more sustainable (as states have done with successful solar PV incentive programs)
h. Hire a program administrator, as most of our partner states have done, to minimize administrative burden on the state (12 to 15% of program cost)

III. Program Impact

a. **Cost is the biggest barrier preventing higher sales in VT.** Survey data suggests that for more than 90% of Vermonters, cost is the most significant barrier to deciding to buy an EV
b. **Vermonters will use these incentives**. Other states with robust programs have seen a two to four times increase in sales rates for EVs once they instituted incentives
c. **Funding level will support almost 250 incentives annually.** A $.50 registration fee increase to fund the program described above would be spent as follows:

Total annual revenue ($.50 x 600,000 vehicles	**$300,000**
Administration cost at 10% (external administrator)	-$30,000
Total Revenue for incentives	**$270,000**
Small dealer incentive fund (10% of the value of purchase incentives)	-$27,000
81 Incentives for All-Electric Cars (assumes half of the incentive fund goes to purchasers of all electric vehicles	-$121,500
162 Incentives for Plug-In Hybrids (assumes half of incentive pool goes to incentives go for all electric vehicles	-$121,500

d. Program Expansion. New sales of EVs in VT currently represent just over 1% of all new passenger vehicle sales, and need to reach 15% (or about 4500 vehicles per year) by 2025

to reach our CEP and ZEV Action Plan goals and create a sustainable market. VTrans and ANR are considering other potential funding sources that could be used to expand the program. Incentive levels would be stepped down as the market starts to gain steam.

IV. Ways to Ensure Benefits Go to Middle and Lower income Vermonters

Many states have taken steps to avoid the use of EV incentives by people that have the means to buy them without assistance. Vermont should take these steps. Options include:

i. ***Model Price Cap:*** Set a ceiling on the purchase price for eligible models (such as $40,000-$50,000). *(A downside is that thresholds may seem arbitrary to automakers if their models fall just on the other side of the break point.)*

ii. ***Income Cap***: Eligibility could be limited to people with incomes below a threshold. CA recently instituted this approach. Income is self-reported during EV transactions, and a spot audit promotes compliance while minimizing administrative cost. VT could do the same.

V. BACKGROUND: Why Incentivize the Purchase of EVs?

There is a broad consensus among automakers, public officials in states that regulate ZEVs, and market experts that incentives will be critical to supporting the transition to EVs past the very first adopters to an early majority of consumers. The benefits for Vermont include:

Achieving Vermont's Energy, GHG Emissions and Environmental Goals

- The Total Energy Study (and new CEP) conclude that electrifying transportation is essential for Vermont to successfully reach its energy and GHG goals; we'll fall short without it.
- Since a large and growing portion of the electricity sold in VT comes from clean renewable sources, getting more EVs on our roads really propels progress towards these goals
- As Vermonters buy EVs air quality, especially in congested areas , will improve

Ensuring Automakers Bring New EV Models to Vermont

- Due to "pooling" provisions in ZEV regulations, automakers can meet distribution requirements for EVs by selling them in any New England state. They will decide where to bring new models based on where they think consumers are most ready to buy them. States with incentives will have a very large advantage.
- If VT cannot secure new EV models, our adoption of these cars will lag behind other states and Vermonters will not be able to find them in in-state dealerships.

Fuel Cost Savings for Vermonters and Vermont's Economy

- The typical driver of a conventional gas-burning passenger vehicle spends about $700 to $1,800 per year on fuel to travel an annual distance of 10,000 to 12,000 miles.[1] The same number of miles can be driven in an electric-powered passenger vehicle at an annual fuel cost of almost half that amount — around $500 to $900. Converting to electric vehicles can save a typical customer almost $1,000 in annual fuel costs. If all the cars in Vermont became electric overnight, hundreds of millions of dollars currently leaving the state's

[1] Calculation assumes a range in vehicle fuel efficiency of 20 to 30 MPG, and a range in the price of gasoline from $2.10 to $3.00 per gallon.

economy to purchase commodity fuel would remain right here, and EVs are very inexpensive to own and maintain once purchased.