Feasibility of an Electric Vehicle Incentive Program Administered by the Clean Energy Development Fund Zachary Handelman, Student, University of Vermont March 20, 2019

This report was written to aid the legislature in its efforts to appropriate automobile fraud settlement dollars. The majority of these dollars are received through the Volkswagen emissions scandal and settlements with the State of Vermont. Additional funding may be available through settlements with Fiat Chrysler and Bosch for similar emissions cheating. This raises the question of what to do with these funds. This report focuses on the idea of using them to implement an electric vehicle (EV) incentive program administered by Vermont's Clean Energy Development Fund (CEDF).

History of CEDF

The CEDF was established in 2005 by the Vermont General Assembly.² It is administered by the Department of Public Service (DPS) and was initially funded through payments by the Vermont Yankee Nuclear Power Plant, supplemented with funding from the American Recovery and Reinvestment Act of 2009.³ In Fiscal Year 2014, the General Assembly appropriated \$7.5 million to the CEDF, which included a final \$5.2 million payment from Vermont Yankee.⁴

The purpose of the fund is to:

Increase the development and deployment in Vermont of cost-effective and environmentally sustainable electric power resources, primarily with respect to renewable energy resources, and the use in Vermont of combined heat and power technologies.⁵

It is managed by a staff member at DPS. The Fund manager provides information to the Clean Energy Development Board (CEDB), an advisory committee that reviews CEDF projects and aids in fiscal decision making. Statutory requirements of the CEDF can be found in 30 V.S.A § 8015.

¹ Office of the Vermont Attorney General, "Attorney General Donovan Resolves Consumer and Environmental Protection Cases; \$3 Million Coming to The State," January 17, 2019, https://ago.vermont.gov/blog/2019/01/17/attorney-general-donovan-resolves-consumer-and-environmental-protection-cases-3-million-coming-to-the-state/.

² 30 V.S.A. § 8015

³ Ibid.

⁴ State of Vermont Department of Public Service, "Annual Report to the Legislature Fiscal Year 2018," January, 2019, https://legislature.vermont.gov/assets/Legislative-Reports/CEDF-Annual-Report-Fiscal-Year-2018.pdf.

⁵ State of Vermont Department of Public Service, "Clean Energy Development Fund: Overview & Purpose," accessed March 17, 2019, https://publicservice.vermont.gov/renewable_energy/cedf

The CEDF has not received funding since the 2014 appropriation from the legislature. According to the DPS 2018 Multi-Year Strategic Plan, the CEDF may be powered down as it awaits new sources of funding.⁶ According to Sam Swanson, co-chair of the CEDB, it is the legislature's job to appropriate funding and determine guidelines for the CEDF. The CEDB does not advocate for more funding, rather they determine how available dollars can be best spent.⁷ At this time, the legislature is considering whether to appropriate automobile fraud settlement dollars to the CEDF. Without such an appropriation, the CEDB would lack the necessary resources to develop an EV incentive program as a part of the CEDF portfolio.

CEDF Program Types

In recent years, the CEDF has been dedicated to transforming the advanced wood heating market. The principle goal for FY 2019 is to continue this trend without starting new programs.⁸ Over the years there have been six primary types of CEDF awards, as outlined in the 2015 evaluation of the CEDF.⁹

- 1) Competitive grants,
- 2) Loans,
- 3) Rebates issued through Small Scale Renewable Energy Incentive Program (SSREIP),
- 4) Grants issued by means other than competitive solicitations (e.g., legislative directives),
- 5) Feasibility studies, and
- 6) Contracts for services.

An EV incentive program would most likely be modeled off existing and past rebate programs. At a recent meeting, the CEDB discussed such a program.

Notes from 3/6 CEDB Meeting

On March 6, 2019, the CEDB held its first meeting of the fiscal year. Board members considered current legislation that might affect the CEDF. This included consideration of an EV incentive program. Jared Duval, chair of the CEDB, answered two questions about an EV program. First, the CEDF is eligible to support this sort of program. Second, American Recovery and

⁶ Vermont Department of Public Service, "CEDF Multi-year Strategic Plan," May, 2018, https://publicservice.vermont.gov/sites/dps/files/documents/Renewable_Energy/CEDF/Reports/CEDF%20 5-Year%20Strategic%20Plan_Approved%20by%20CED%20Board.pdf.

⁷ Sam Swanson, phone conversation with author, February 27, 2019.

⁸ Vermont Department of Public Service, "Fiscal Year 2019 Annual Program Plan and Budget," September, 2018,

https://publicservice.vermont.gov/sites/dps/files/documents/Renewable Energy/CEDF/Reports/CEDF FY 19_Program%20Plan%20and%20Program%20Allocations.pdf

⁹ NMR Group, Inc., "Evaluation of the Vermont Clean Energy Development Fund," February 25, 2015.

Reinvestment Act funds could be available for deployment but are not sufficient to make an EV incentive program feasible. Additional funding, such as the monies available from the VW settlement, could provide the basis for a viable program. Board members also discussed how the EV program could be modeled on the CEDF's experience with transforming the advanced wood heating market. They would likely design the incentive program and contract it out for implementation as they have with wood heating programs.

Existing EV Incentive Programs

Drive Electric Vermont, a partner organization of Vermont Energy Investment Corporation, is a useful resource for information on existing EV incentives in the state. Several Vermont electric utilities offer incentives ranging from \$250 to \$1,500 dollars. ¹⁰ Some utilities, such as Vermont Electric Coop, offer bill credits, while others, such as Burlington Electric Department, offer rebates. ¹¹ These incentives can be coupled with the federal government tax credit program for new EV purchases. ¹² Federal tax credits range from \$2,500 to \$7,500. ¹³

Outside of Vermont, more diverse incentive programs are in effect. For example, Arizona has adopted policies such as allowing EVs to access carpool lanes, and reducing the license tax rate for EV owners.¹⁴ The success of incentive programs vary by state, and it remains to be determined whether states with more ambitious programs are those that have seen an increase in EVs on the road.

Conclusion

With the CEDF winding down operations due to a lack of funding, the legislature needs to decide what will become of it. As this report noted, if more money is appropriated to the fund, an EV incentive program would be feasible. According to CEDF board members, the CEDF may be the most appropriate entity in Vermont to administer such a program due to its prior experience in facilitating market transformations.

¹⁰ Drive Electric Vermont, "Purchase Incentives," accessed March 17, 2019, https://www.driveelectricvt.com/buying-guide/purchase-incentives

¹¹ Ibid.

¹² Office of Renewable Energy & Energy Efficiency, "Electric Vehicles: Tax Credits and Other Incentives," accessed March 17, 2019, https://www.energy.gov/eere/electricvehicles/electric-vehicles-tax-credits-and-other-incentives.

¹³ Ibid.

¹⁴ U.S. Department of Energy, Alternative Fuels Data Center, "High Occupancy Vehicle (HOV) Lane Exemption," accessed March 17, 2019, https://afdc.energy.gov/laws/11739. U.S. Department of Energy, Alternative Fuels Data Center, "Reduced Alternative Fuel Vehicle (AFV) License Tax," https://afdc.energy.gov/laws/4179.