



TOWN OF FRANKLIN

2020 Green Communities Grant Submission

PURCHASE OF 2 FULLY ELECTRIC VEHICLES

MAY 1, 2020

Submitted by: Alecia Alleyne

Title: Administrative Assistant

Email: aalleyne@franklinma.gov

355 East Central Street, Franklin MA, 02038

508-520-4949

ATTACHMENT A

PROJECT NARRATIVE - PURCHASE OF TWO (2) ELECTRIC VEHICLES

TOTAL GRANT FUNDS BEING REQUESTED: \$15,000.00

- 1. The Town of Franklin's total energy consumption for the 2019 year is as follows:**
 - a. Total Energy Consumption (Weather Normalized): **113,669 MMBtu**
 - b. Please View *EXHIBIT 1: Annual Municipal Energy Use*

- 2. The total vehicle energy use is as follows:**
 - a. Diesel usage across the municipality: 33,286 Gallons (*EXHIBIT 2*)
 - b. Gasoline usage across the municipality: 74,828 Gallons (*EXHIBIT 2*)
 - c. The average energy use for the two vehicles that will be replaced is approximately 130.3 gallons per vehicle per year, with an average fuel efficiency of 17.95 miles per gallon, and an average of 2,357 Miles traveled per vehicle over the course of one year.

- 3. Specification Sheets for all equipment to be installed:**
 - a. The Town of Franklin will be purchasing two new, fully electric, battery powered vehicles. The proposed vehicle to be purchased is the 2018 Nissan Leaf, two vehicles in total will be purchased.
 - b. The Specifications Sheet is included in *EXHIBIT 3*.

- 4. Proposed Budget for the Purchase of Two Fully Electric, Battery Powered Vehicles:**
 - a. Two 2018 Nissan Leaf Vehicles will be purchased for a combined total of \$49,765.00
 - b. *EXHIBIT 4* - For the Budget Sheet

- 5. Provide a description of the applicant and the project team and its qualifications for completing the project, including all identified partners, contractors, and any technical service providers. Applicants are encouraged to seek qualified, independent project managers or clerk of the works to coordinate the day-to-day activities. Grant administration funds can be used for this purpose.**
 - a. The entire purchasing process will be done in-house by the Town of Franklin's Purchasing Agent, John Bugbee. John Bugbee has several years of experience working for the Town of Franklin as the Purchasing Officer and will be responsible for purchasing the two new, fully electric, battery powered, vehicles (2018 Nissan Leaf) off of the State Bid List and he will also be responsible for selling the two (2) 2010 Chevrolet Cobalts which the Nissan Leaf vehicles will be replacing.

- 6. For hybrid, plug-in hybrid, and fully electric vehicles (including leases), grant applications must include type and model of vehicle that is being replaced, its average annual mileage and fuel costs, as well as the make/model of the proposed vehicle, and the mpg for both vehicles.**

- a. Information on vehicles to be replaced: Two vehicles will be replaced, their average usage and data is the same (same make/model and used for the same purpose throughout Town).
 - i. Make & Model: Chevrolet Cobalt
 - ii. Model Year: 2010
 - iii. Average Annual Mileage: 2,357 miles/year
 - iv. Average Fuel Costs: \$250
 - v. Average MPG: 17.95 MPG
- b. Proposed vehicle information:
 - i. Make & Model: Nissan Leaf
 - ii. Model Year: 2018
 - iii. MPGe: 112 MPGe

7. Energy Audit

- a. *EXHIBIT 5*

PROJECT PROPOSAL & SCOPE

The Town of Franklin has set out to purchase two fully electric, battery powered vehicles to replace two existing gas-powered vehicles owned by the Town. The Town is currently in possession of two (2), 2010 Chevrolet Cobalts. On average just under 2,500 miles are put on each car every year. In 2019 the average fuel consumption per vehicle was 131.30 gallons of gasoline, the calculated fuel efficiency per vehicle is 17.95 miles per gallon and with an average gasoline cost of \$1.90 per gallon for the 2019 year, the Town spent an estimated \$250 on fuel per vehicle over the course of 2019, for a total of approximately \$500 dollars in fuel costs over the course of the 2019 year.

The Town of Franklin would like to reduce its carbon footprint and greenhouse gas emissions. There have been several projects and initiatives implemented around Town that have improved the efficiency and environmental impact of the municipal buildings within Town. We would now like to start the implementation of a more efficient vehicle fleet. Over the next three years we would like to replace twelve (12) non-exempt vehicles with fuel efficient full-battery electric vehicles, this grant application will mark the beginning of this process.

The procurement of the new, fully electric, vehicles will be done by our Procurement Officer, John Bugbee. Procurement will be initiated if/when grant funding is approved. The Town of Franklin is requesting \$15,000.00 in Green Community Grant funding to supplement the purchase costs of two Nissan Leaf, fully electric vehicles to be used by municipal personnel on site visits, inspections, and any other approved municipal business. Using the State Bid List we have determined that the average cost of the vehicles is approximately \$24,882.50. We are requesting for \$7,500.00 in Green Communities grant funding to be applied towards each vehicle, totalling \$15,000 in grant money requests. The remaining \$34,765.00 in costs associated with the purchase of both vehicles will be covered by the Town using available Capital Funds.

The implementation of a fully electric (12 Vehicle) fleet will produce many benefits to the Town. It will diminish fuel costs, and greatly reduce maintenance costs. Unlike gas vehicles, battery-powered fully electric vehicles do not need oil changes and require minimal yearly maintenance. By replacing just two gas powered

vehicles the Town will save approximately \$500 on annual gasoline costs, reduce gasoline usage by approximately 260 gallons per year and reduce its energy impact on the community.

In the Town's five year energy reduction plan it was determined that vehicles were the second largest energy consumer for the Town, accounting for 13% of the Town's energy consumption in FY16. In the five year energy reduction plan, the Town sought to purchase more efficient vehicles. Municipal fleets often account for over one third of total energy consumption which points to vehicles as important targets in the reduction of energy consumption and greenhouse gas emissions. The purchase of two full battery electric vehicles to replace two nonexempt gasoline internal combustion engine vehicles is the first step in the process of replacing twelve gas vehicles in our current fleet with fully electric vehicles as outlined in our energy reduction plan.

Grant funding is needed to help supplement the purchase costs of the two new full battery electric vehicles. The acquisition cost of two 2018, Nissan Leaf vehicles is approximately \$49,765.00 total. The Town is reliant on grant funding to supplement some of the costs associated with this purchase.

The Town will host a meeting with staff to introduce the two new vehicles to the fleet, this meeting will be focused towards the Assessor's Department and the Building Departments which are the two departments that will be primarily using the vehicles. Employees will be educated on the benefits of using a fully electric vehicle and will also be given a tutorial on how to properly use and charge the car and highlight any unique features it may have.

We greatly appreciate your consideration.

Respectfully Submitted by,
Alecia Alleyne