



CITY OF DETROIT  
OFFICE OF THE CHIEF FINANCIAL OFFICER  
OFFICE OF DEVELOPMENT AND GRANTS

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April 19, 2022

The Honorable Detroit City Council  
**ATTN: City Clerk Office**  
200 Coleman A. Young Municipal Center  
Detroit MI 48226

**RE: Request to Accept the Fleet Electrification Plan Grant**

EV re-Fleet Inc. has awarded the City of Detroit General Services Department with the Fleet Electrification Plan Grant, valued at \$5,000.00. This is a non-cash grant. There is no match requirement. The total project cost is \$5,000.00.

The objective of the grant is to conduct a fleet electrification assessment to understand the financial, operating, and environmental impact of adopting Electric Vehicle technology. The services allotted to the department will be utilized to determine which vehicles in the City's fleet are eligible for conversion to electric and how adopting these vehicles will impact the City's long term Capital Plan, including an understanding of the energy infrastructure requirements, the financial impact to different city funds, and the impacts on repair and maintenance operations.

I respectfully ask your approval to accept and appropriate funding in accordance with the attached resolution.

Sincerely,  
DocuSigned by:  
*Terri Daniels*  
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Terri Daniels  
Director of Grants, Office of Development and Grants

CC:  
Sajjiah Parker, Assistant Director, Grants

DocuSigned by:  
*Steven Watson*  
42C91AA10FE84AD...

Office of Budget

DocuSigned by:  
*[Signature]*  
3925B7659A3D409...

Agreement Approved as to Form  
By the Law Department



## Office of Development and Grants

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### RESOLUTION

**Council Member** \_\_\_\_\_

**WHEREAS**, the General Services Department is requesting authorization to accept a non-cash grant from EV re-Fleet Inc., valued at \$5,000.00, to conduct a fleet electrification assessment to understand the financial, operating, and environmental impact of adopting Electric Vehicle technology; and

**WHEREAS**, the Law Department has approved the attached agreement as to form; and

**WHEREAS**, this request has been approved by the Office of Budget; now

**THEREFORE, BE IT RESOLVED** that the Director or Head of the Department is authorized to execute the grant agreement on behalf of the City of Detroit to accept the the Fleet Electrification Plan Grant.



# Memorandum of Understanding

Agreement between City of Detroit and EV re-Fleet Inc.

April 7<sup>th</sup>, 2022

This Memorandum of Understanding (“MOU”) is executed as of **MONTH DD, YYYY** (“Effective Date”) between the City of Detroit (“the City”) and EV re-Fleet Inc. (“Consultant”) (each herein referred to individually as a “Party”, or collectively as the “Parties”). The main purpose of this MOU is to develop a fleet electrification plan that will be incorporated into the City’s Capital Plan, due in August 2022).

## Project Title:

City of Detroit Fleet Electrification Pilot Assessment

## 1. Purpose, Background and Objectives:

The City of Detroit is performing a fleet electrification assessment to understand the financial, operating, and environmental impact of adopting Electric Vehicle (“EV”) technology.

The City is looking to determine which vehicles in its fleet are eligible for conversion to Battery Electric Vehicles (“BEV”) and/or Plug-in Hybrid Electric Vehicles (“PHEV”) and how adopting these vehicles will impact the City’s long term Capital Plan – including an understanding of the energy infrastructure requirements, the financial impact to different city funds, and the impacts on repair and maintenance operations. The City also wants to understand current and future fleet CO<sub>2</sub> emissions as it replaces fossil fuel powered vehicles with electric vehicles. The City is undertaking this project to find cost-effective ways to electrify its fleet and reduce Total Cost of Ownership (“TCO”) as well as CO<sub>2</sub> emissions.

The Consultant will prepare a report that identifies fleet electrification opportunities and prioritizes the replacement of different fleet vehicles according to TCO and Greenhouse Gas (“GHG”) reduction potential. The report will be based on the assessment, interviews, and relevant vehicle data in the City’s records.

The fleet electrification report will be delivered as a PDF document with an Excel spreadsheet that provides additional context. The report will include the following content:

- A breakdown of fleet vehicles eligible for conversion to BEV and PHEV including benefit-cost analysis by vehicle class, department, and operating codes
- A determination of energy infrastructure requirements to support the conversion, including high-level cost estimates



- An evaluation of current fleet CO<sub>2</sub> emissions and expected future fleet emissions

## 2. Period of Performance:

- Start Date: upon MOU execution
- End Date: upon delivery of all services defined herein (targeted: July 31, 2022)

## 3. MOU Scope:

The scope of the Fleet Electrification Pilot Assessment is described below:

The Consultant will work with City staff to complete a systematic assessment of existing fleet vehicles of all City departments, including, but not limited to, Police, Public Works, and other department 'pool cars' (herein referred to as the "Assessment"). The Assessment will use an inventory of the overall fleet size; vehicle types and number of vehicles in each vehicle type; and the off-duty locations, routes, level of usage, and fuel consumption patterns of each vehicle, to determine EV opportunities. The Consultant will rely on City staff to provide all necessary information in a timely manner.

The deliverables for this project will cover three main areas:

1. Assess and report on the electrification potential of the City's fleet of vehicles
2. Assess and recommend vehicle charging needs
3. Evaluate current and future fleet CO<sub>2</sub> emissions

The Consultant will apply mathematical models and software to systematically collect and assess the electrification potential for the City's fleet. Refer to Exhibit A for background information about the Consultant.

### 1. Assess and report on the electrification potential of the City's fleet of vehicles

The Consultant will collect fleet inventory of the City's overall fleet size including vehicle types and number of vehicles in each vehicle type, along with information on the utilization of those vehicles - utilization data will include driving and fuel data, parking locations, and maintenance data. After compiling the relevant data sources, the Consultant will determine EV adoption opportunities. For this area of the project, the Consultant will prepare:

- i. An analysis of all City owned vehicles within each current vehicle standard, including operational needs, and other attributes that would determine potential timelines for EV adoption. These recommendations will be broken down by vehicle standard (such as the City's operating codes), by customer department, and by parking location.
- ii. A fleet report and accompanying spreadsheet that identifies and summarizes fleet electrification opportunities, segmented by vehicle standard, recommended for further analysis, including providing a prioritized list of fleet vehicles to consider for EV conversion, inclusive of vehicles already in production and planned for production within 2022 and 2023.



- a. High level cost-and-benefit estimates of purchasing EVs vs. ICE vehicles
- b. High level cost estimates of charging infrastructure and existing rebates available
- c. Integrating TCO analysis over a 5-year lifetime of each vehicle, incorporating resale potential value.

## 2. Assess and recommend vehicle charging needs

Consultant will use the fleet assessment to determine vehicle energy requirements and charging needs, to match-make with charging infrastructure opportunities at various municipal building locations. The Consultant will work with City staff to make reasonable assumptions about the expected charging schedule of electric vehicles adopted by different City departments. For this area of the project, the Consultant will prepare:

- i. A summary of charging profiles, showing how much electricity each vehicle needs/would need, where vehicles are parked and when and where they would or could charge tied to the prioritized EV transition plan prepared in area 1 of the project
- ii. High-level analysis of EVSE deployment plan and associated costs

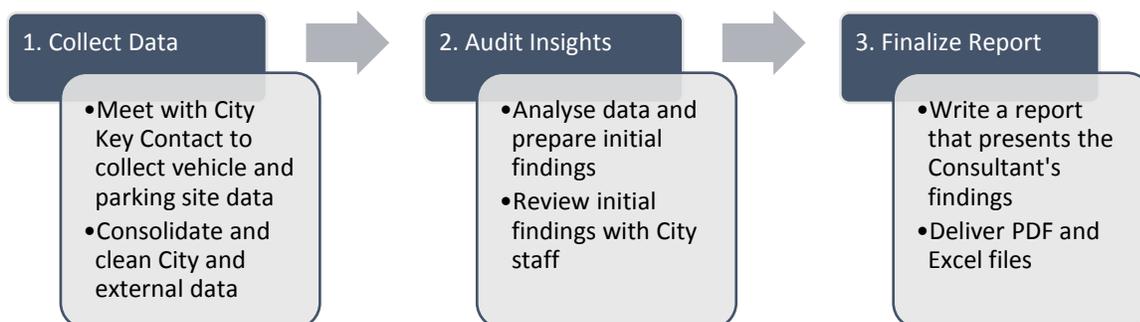
## 3. Evaluate current and future fleet CO<sub>2</sub> emissions

The Consultant will prepare an evaluation of current and expected fleet CO<sub>2</sub> emissions throughout the transition to an EV fleet. For this area of the project, the Consultant will prepare:

- i. Fleet emissions report detailing the current (estimated) fleet CO<sub>2</sub> emissions informed by the collected vehicle type, age, usage, and consumption data
- ii. Report estimating the expected fleet emissions over the course of the City's fleet EV transition (using the timeline postulated in the first area of this project - a report on the City's fleet electrification potential), using emission assumptions provided by City staff.

## 4. Project Phases

The Consultant will deliver its proposed Scope in three phases:





## 5. Deliverables

The Consultant will deliver its scope in accordance with the project phases defined in section 4 with the associated deliverable and timelines listed below.

Project Phase	Timeline*	Deliverables
1. Collect Data	2 – 4 weeks	a) Fleet map, visible in Excel, that combines inventory, fuel and driving data, parking locations, and maintenance data
2. Audit Insights	2 – 4 weeks	a) Excel file with a breakdown of information per vehicle for vehicles to be replaced in 2022 b) Draft recommendations on how to evaluate current and future fleet CO <sub>2</sub> emissions
3. Finalize Report	2 – 4 weeks	a) PDF report b) Excel file with summary recommendations and vehicle breakdown for vehicles to be replaced in 2022

*\*Note: Timeline may vary depending on City Staff availability and the time required to collect all necessary data from the City.*

## 6. Project Key Persons

For this MOU, the resources listed in this section will be considered 'Key Persons'.

City of Detroit Key Contact	Joel Howrani Heeres Director of Sustainability	<a href="mailto:howraniheeresj@detroitmi.gov">howraniheeresj@detroitmi.gov</a> 313-224-2094
EV re-Fleet Key Contacts	Adrian Gomez Co-Founder	<a href="mailto:adrian@evrefleet.com">adrian@evrefleet.com</a> 416-885-0688
	Igor Lukac Co-Founder	<a href="mailto:igor@evrefleet.com">igor@evrefleet.com</a> 905-399-3671

## 7. Dependencies

Overall project timing is dependent on the ability for City staff to provide the necessary fleet and department data on a timely basis as well as to provide timely feedback on the deliverables prepared by the Consultant. The Parties understand that time is of the essence and will work in good faith to complete all deliverables before the End Date stated in Section 2 of this MOU.

## 8. Fees and Invoicing

There are no fees associated with this MOU. The market value of the services to be provided is \$5,000.



## 9. Miscellaneous:

It is mutually agreed upon and understood by the Parties that:

1. Each Party will work together in a coordinated fashion for the fulfillment of the MOU Scope.
2. In no way does this agreement restrict the Parties from participating in similar agreements with other public or private agencies, organizations, and individuals.
3. This MOU will be effective upon the signature of both Parties.
4. Nothing in this memorandum shall obligate any Party to the transfer of funds. Any endeavor involving reimbursement or contribution of funds between the Parties of this MOU will be handled in accordance with applicable laws, regulations, and procedures. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the Parties involved and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority.
5. This MOU is not intended to and does not create any legal Partnership or joint venture, nor any right, benefit, or trust responsibility.
6. The City agrees that information about this project may be promoted on the Consultant's website and marketing materials. The City agrees that the Consultant may use the City's name, logo, and other trademarks to promote its work. Nothing in this MOU transfers to the Consultant any right, title, or interest in the City's name, logo, or other trademarks. All private information pertaining to the City will remain confidential.
7. The Consultant will protect the privacy and confidentiality of the data shared by the City for the purposes of completing this MOU.
8. The Consultant may aggregate and anonymize the City's data to further refine and advance its products, solutions, and business purposes. The aggregated and anonymized data, as well as all the procedures, designs, software, and mathematical models developed by the Consultant will be deemed intellectual property under this MOU. Title and full ownership rights to all intellectual property developed under this MOU will remain with the Consultant.
9. Any Party may terminate its participation in this MOU by providing written notice to other Party.
10. This MOU does not modify or amend the Mutual Nondisclosure Agreement between the parties, which continues to be in full force and effect



By signing below, the Parties authorize that they have authority to enter into this agreement on behalf of their Party.

**EV re-Fleet Inc.**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**The Corporation of the City of Detroit**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

PO Number: \_\_\_\_\_



## Exhibit A – About EV re-Fleet Inc.

### Adrian Gomez, MBA

Co-founder, Fleet Consulting Lead

Adrian Gomez has a decade of experience with transportation electrification through work in the utility and automotive space, as well as in the fleet industry. As a co-owner of his previous software company, he led the fleet analytics software practice and assessed over 13,000 vehicles for electrification.

Adrian also led strategy and business development efforts to grow the transportation electrification portfolio at Ontario Power Generation, one of Canada's largest electricity generators. He also developed a deep understanding of the electric vehicle industry while working in strategy and corporate development at Lucid Motors, where he was a key contributor to the company's \$1 billion USD fundraise.

Adrian applies his industry experience and extensive network to provide high value fleet electrification advice. He has worked with state, county and city government fleets in the USA and has also provided cleantech advice and support to the governments of Finland, Canada, and the State of California.

### Igor Lukac, P.Eng

Co-founder, Technical Solutions Lead

Igor Lukac, a licensed professional engineer, discovered his passion for high-tech clean energy while building a solar-powered electric car with a team of engineers. Since then, his engineering firm has helped clients throughout North America to deploy renewable energy projects.

Igor holds two degrees, one in Integrated Engineering and one in Business Administration with a specialization in finance. Through collaboration with General Electric and Siemens on wind turbine projects in Canada and the United States, Igor developed a deep understanding of the challenges that coincide with rapid deployment of renewable technology.

Now, more than 14 years after building his first electric car, Igor has developed a systematic approach to deliver affordable fleet electrification assessments using robust mathematics and software algorithms.

### About the EVRF Team

Over the last decade, the Consultant's engineering team has taken responsibility for critical communications systems for some of the largest Telecommunication providers in Canada, USA, and Australia and for wind power turbines for some of the largest developers in the US. Clients have trusted our team to analyse their projects, identify potential structural risks, recommend solutions, and provide engineering signoff. These analyses could include assessments of risks and potential harms to the public, environmental impact assessments in ecologically sensitive environments, potential dangers from weather calamities, and aging structures.

Our business is preventative medicine to provide confident solutions while protecting the public from as much harm as possible. Our methodology is thorough, based on sound data, engineering analysis, and



numerous quality checks before any project completion. Our team of engineers is inspired by the need for an evolving ecological consciousness. This belief has propelled us to strive for organizational change through powerful data analytics to lower the negative environmental impact of our clients' projects.

We have taken that same level of trust and critical thinking into the fleet electrification space where we developed an energy engineering approach to determine the electric vehicle feasibility of our clients' fleet. Using proprietary mathematical models and software, we prepare in-depth analyses of fleet data, with a primary focus on identifying cost-efficient ways to decrease CO<sub>2</sub> emissions and presenting a roadmap towards future charging infrastructure and electric vehicle deployments.

# COMMENT HISTORY



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Please DocuSign: 47\_PGRT-Fleet Electrification Assessment Plan FY 2022

**Sender:** Bashar Dimitry

**Envelope Id:** 864996e4-2617-42f9-b379-e0b4c980e49a

**Time Zone:** (UTC-05:00) Eastern Time (US & Canada)

**Date Sent:** 4/19/2022 | 11:33:01 AM

**Date Completed:** 4/22/2022 | 2:35:14 PM

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*Private: macklinm@detroitmi.gov, tollivert@detroitmi.gov*

**Melva Macklin** -4/19/2022 | 1:45:57 PM  
macklinm@detroitmi.gov

EV re-Fleet Inc. has awarded a non-cash grant for Assessment Services to determine which vehicles in the City's fleet are eligible for conversion to electric and how adopting these vehicles will impact the City's long term Capital Plan to the General Services Department. There is no match requirement. There is a MOU on file with the details of this non cash grant.