

# Invitation to Submit Expressions of Interest (EOI) for Provision of Car and Van Cost and Performance Data

Procurement Event Reference ESC/23/242

**4<sup>th</sup> November 2022**



## Contents

1.	Introduction .....	3
2.	Invitation to Express Interest.....	4
2.1.	Overview.....	4
2.2.	Notices .....	4
3.	Scope of Work .....	5
3.1.	Scope Summary.....	5
3.2.	Project Budget and Completion Deadline.....	6
4.	Requirements for Submission of an EOI .....	7
4.1.	Communications .....	7
4.2.	Intention to Submit an EOI .....	7
4.3.	Submission and Review of Expressions of Interest .....	7
4.4.	Questions and Clarifications .....	7
4.5.	Form and Content of Expression of Interest.....	8
4.6.	Timeline .....	8

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## 1. Introduction

Energy Systems Catapult (ESC) is an independent, not-for-profit organisation set up to accelerate the UK's energy system transformation and ensure businesses and consumers capture the opportunities of clean growth. Part-publicly funded, we collaborate with industry, academia and Government to overcome the systemic barriers of the current energy market to help unleash the potential of new products, services and value chains required to achieve the UK's clean growth ambitions.

The **ESME:Transport** model encapsulates the whole energy system, covering the different forms of energy supply, network infrastructure and end-use sectors. It has a particularly detailed representation of the transport sector and provides an integrated, holistic means of quantifying and qualitatively assessing the impacts on and from infrastructure, consumers, vehicle uptake and use, policy measures and commercial models across the system. The Analytical Framework also allows for different user groups to be represented, each having different travel patterns and charging requirements.

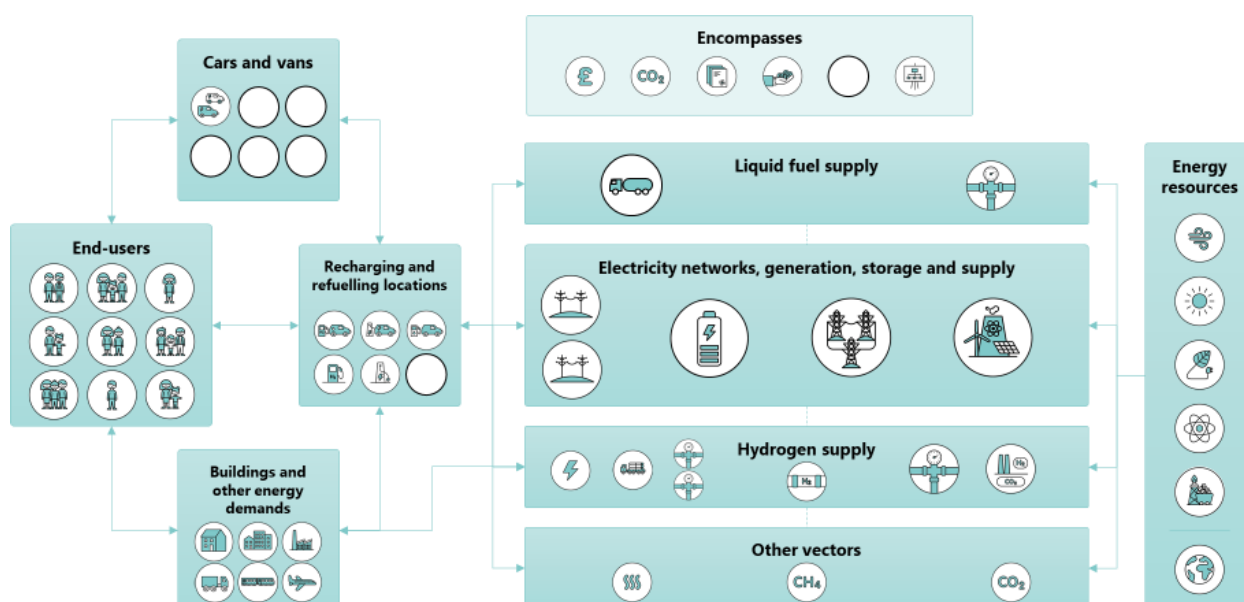


Figure 1: Overview of the ESME:Transport Analytical Framework

ESC wishes to update some of the vehicle input data used in this ESME:Transport model, specifically the cost and performance data for cars and vans. ESC is therefore seeking organisations interested in providing up-to-date data.

## 2. Invitation to Express Interest

### 2.1. Overview

Any organisation which believes it has the skills, experience and access to data required to deliver the scope of work summarised in this invitation is hereby invited to submit an Expression of Interest (EOI) to ESC (as specified in this invitation), and thus to declare itself as a **Candidate** for delivery of this work.

This document:

- provides a summary of the scope of the work required, including the provisional project budget and project completion deadline, (in Section 3);
- sets out the requirements for submission of an Expression of Interest (in Section 4);
- briefly describes the process that will be used in the evaluation and selection of suitable Candidates for the second (Request for Proposals) stage, and the process for questions and clarifications, (in Sections 4.3 and 4.4); and
- sets out the timeline for both the procurement stages and the project delivery (in Section 4.6).

### 2.2. Notices

Any Candidate failing to comply with any of the requirements or conditions specified in this invitation document may be disqualified from the process.

Neither this invitation nor any associated documentation constitutes an offer by ESC to enter a contract and ESC may withdraw from the EOI process at any stage without prior consultation.

ESC shall not be liable for any costs incurred, or work done, by any Candidate either (a) preparing an Expression of Interest in response to this invitation or (b) in anticipation of being awarded a contract in relation to it.

### 3. Scope of Work

#### 3.1. Scope Summary

ESC is looking to update the car and van input data used in its ESME:Transport model. The collected data will need to fulfil the requirements set out below.

Data is needed on an annual basis for all years between 2020 and 2050 (inclusive).

All data must be fully and demonstrably up to date, with sources identified for each data item, to reflect the state-of-the-art and markets at the end of 2022 and best current sector knowledge in relation to forward projections. Candidates should summarise in their EOIs how they will achieve this requirement.

The data will need to be provided for the following segments:

Car Segments	Van Segments
A MINI	1 Small Car Derived
B SUPERMINI	2 Large Car Derived
C LOWER MEDIUM	3 Standard Panel
D UPPER MEDIUM	4 Large Panel
E EXECUTIVE	5 Pick Up
F LUXURY SALOON	
G SPECIALIST SPORTS	
H DUAL PURPOSE	
I MULTI PURPOSE	

Data will need to be provided for the following powertrains for each vehicle segment and year:

Powertrain Classifications
Petrol ICE
Petrol Full Hybrid
Petrol PHEV
Petrol RE-EV
Diesel ICE
Diesel Full Hybrid
Diesel PHEV
Diesel RE-EV
Electric
Fuel Cell (H2)
Fuel Cell RE-EV (H2)

The required data is listed in the below table:

Variable	Units
Purchase price	£
Battery cost	£
Vehicle cost	£
Fuel consumption (NEDC and WLTP)	l/100km (for liquid fuels) kg/100km for H <sub>2</sub>
Electricity consumption (NEDC and WLTP)	kWh/100km
Total Battery Capacity	kWh
Usable Battery Capacity	kWh
NEDC range	Km/kWh
NEDC and WLTP CO <sub>2</sub> emissions	gCO <sub>2</sub> /km
Insurance cost	£
Maintenance cost	£
Depreciation	%
Real world electricity consumption or real world electricity consumption factor so it can be applied to WLTP or NEDC consumption	kWh/100km %
Real world fuel consumption or real world fuel consumption factor so it can be applied to WLTP or NEDC consumption	l/100km for liquid fuels or kg/100km for H <sub>2</sub> %

### 3.2. Project Budget and Completion Deadline

There is a maximum budget cap of **£40,000** for this work.

The work is expected to start on 16<sup>th</sup> Jan 2023, and must be completed by **20<sup>th</sup> March 2023** (in good time before the financial year end at the end of March).

## 4. Requirements for Submission of an EOI

### 4.1. Communications

ALL communication must be submitted to: [Procurement@es.catapult.org.uk](mailto:Procurement@es.catapult.org.uk)

ALL communication must include the **ESC Procurement Event Reference**, as stated on the front cover of this invitation.

Information received by any other method, and/or delivered after the receipt deadline, will not be considered.

### 4.2. Intention to Submit an EOI

The Candidate is requested to notify ESC (by email to the above email address) of its intention to submit an EOI and to provide the name, job title, address, telephone and email address of the lead person to whom all communication concerning the EOI is to be addressed. This is to help ESC manage and plan for review of submissions.

### 4.3. Submission and Review of Expressions of Interest

Expressions of Interest should be submitted to ESC (at the above email address) by the deadline and in the form specified below.

ESC will review all EOIs received by the deadline.. Only those Candidates that are judged (based on their EOIs) to be credible and to add value will be taken forward for consideration in the second stage.

A Request for Proposals with further specific requirements will then be issued, at ESC's discretion, to those Candidates selected to be taken forward to this second stage.

### 4.4. Questions and Clarifications

All questions and clarifications relating to this invitation, including questions on the scope of work or other invitation content, should be submitted to the email address specified above.

Answers will be provided in writing. Where appropriate, questions and answers may be provided to all Candidates unless a Candidate notifies ESC that the question is commercially sensitive; (Any commercially sensitive questions and answers will not be shared with the other bidders, and the Candidate submitting a commercially sensitive question will not be identified).

## 4.5. Form and Content of Expression of Interest

Before completing an EOI, please ensure that you have read and understood the entirety of this invitation.

Expressions of Interest shall:

- be in either Word or PDF format
- be ideally no more than 1 A4 page in length, and in any event no more than 2 pages
- be in English
- not include any other attached documents unless specifically requested.

The EOI shall briefly:

- confirm the Candidate's interest in carrying out the work outlined in this invitation and its willingness to submit a proposal for this work upon receipt of a request for proposals. ;
- summarise the Candidate organisation's skills, experience and access to data required;
- summarise how it would meet any other requirements specified (or unspecified in this invitation but judged to be important by the Candidate); and
- summarise how the Candidate would deliver the work;
- state any critical assumptions made, along with the rationale for each one, and any dependencies upon ESC or other parties or events; and
- state the name, job title, address, telephone and email address of the lead person to whom all communication concerning the EOI is to be addressed.

Where a specific requirement cannot be fully met, or where the Candidate proposes to deviate from the requirement, the Candidate must identify this in their EOI.

## 4.6. Timeline

Item	Description	Date
<b>Stage 1</b>		
Invitation Issued	The launch of this Invitation to Submit Expressions of Interest.	04/11/2022
EOI Deadline	DEADLINE for Candidates to submit their Expressions of Interest.	05/12/2022 at 0900 GMT
Results of EOI Notified	Notifications sent to Candidates advising whether they have been progressed to the RfP stage.	circa 12/12/2022
<b>Stage 2</b>		
Issue of Request for Proposals	Request for Proposals (RfP) issued to those Candidates selected for second stage.	circa 12/12/2022
Project Start	Effective contract date and start of work.	16/01/2023
Project Completion Deadline	DEADLINE for completion of the project (in good time before the financial year end at the end of March).	20/03/2023