Planning

Modelling Park & Ride Sites as Zero Carbon Facilities (PIN)

Essex County Council

F01: Prior information notice
Prior information only
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Procurement identifier (OCID): ocds-h6vhtk-040dcf
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Section I: Contracting authority

I.1) Name and addresses

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Region code

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Internet address(es)

Main address

https://www.essex.gov.uk/

Buyer's address

https://www.essex.gov.uk/

I.3) Communication

Additional information can be obtained from the above-mentioned address

I.4) Type of the contracting authority

Regional or local authority

I.5) Main activity

General public services

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Modelling Park & Ride Sites as Zero Carbon Facilities (PIN)

Reference number

DN695796

II.1.2) Main CPV code

- 72242000 - Design-modelling services

II.1.3) Type of contract

Services

II.1.4) Short description

1. What is the purpose of this market engagement?

Ahead of publishing this opportunity in late October 2023, Essex County Council is looking to assess the interest and capability of the market to provide and deliver the requirement, as set out in the Project Description below, and would like to invite parties meeting the requirements to register their interest in this opportunity and respond to the questions set out in section 4 below. The contract will commence in November 2023 and end in March 2024.

2. Project Description

The facilities would serve as hubs for power generation with solar PV as the base case. In time, the facilities could also provide a range of power-related services including electric vehicle charging, power supply offtake to the local area and power network balancing services.

The changing nature of park and ride facilities will be a key consideration within the project. The project partners recognise that different financing and operating models will need to be considered taking account of different travel and transport needs for the localities as we transition to zero carbon mobility for individuals, businesses, and communities. The project scope will therefore include exploration of the role of park and ride facilities as multi-modal

transport refuelling centres.

3. Project Aim

The aim of the project is to help the public sector develop Park and Ride sites and potentially other public car parking assets, as local Hubs to address Net Zero and delivering wider value into the locality.

4. Objectives

1. To design a suite of tecno-economic assessment materials to assist local authorities and other public sector organisations in the evaluation of the potential opportunity for park and ride sites to act as net zero hubs.

2. To test the materials to help local authorities develop business case(s) based around a minimum suite of low-zero carbon technologies, financing arrangements and delivery options for developing renewable energy schemes (including renewable energy generation, storage, local use of power and EV charging).on.

3. To collaborate with the project partners located across the Greater South East Hub area, with the capability of replication for use beyond the project team's Park and Ride portfolio.

This requirement will be sourced via a Request For Quotation (RFQ) issued by the Authority on the 27th of October 2023.

If you would like to take part in this Request for Quotation, Please register your interest via emailing John.Sharman@essex.gov.uk with your organisations name and contact details by the 27th of October 2023 at 12:00 PM.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 71313440 - Environmental Impact Assessment (EIA) services for construction

II.2.3) Place of performance

NUTS codes

- UKH3 - Essex

II.2.4) Description of the procurement

Project Aim

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Required Outcomes

Any solutions that are developed must be capable of assuring the following outcomes:

• Creates realisable opportunities (i.e., financially, technically and within the capabilities of the asset owner/operator) for wider integration and coordination

• Deliveries project models that fulfil carbon accounting requirements set out in the HM Treasury Green Book and any locally applied

• Evaluates wider environmental, social, and economic benefits for the place being served

• Ensures that projects are designed in a way that allows some flexibility for future proofing recognising the growth of smart local energy and potential change in key parameters such as technology mix, and growth in demand for EV charging

• Addresses local gaps in skills, capabilities, capacity to deliver and manage such projects

• Builds in resilience to externalities including changing transport and mobility needs and behaviours, decarbonisation pathways, and the impact on extreme weather patterns due to a changing climate

• Allows local retention of value and oversight, as appropriate

• Demonstrates value for money and achieves success against locally and nationally agreed requirements.

Outputs of the commission

The key outputs of the commission will be:

• A feasibility modelling package designed to help the interested public sector organisation assess the feasibility and viability of developing a parking asset into a Net Zero Transport and Travel Hub.

• A minimum of four sites tested across the project partners' portfolios with outputs evaluated by the project partners and feedback incorporated into the feasibility modelling package by the end of this commission

• A road map to deploying the package including the anticipated maintenance cost and added value opportunities by collaborating with the project team.

Scope of Work

These materials should be designed so that the user can consider various design configurations to find the optimal operational model, with solar PV as the base case technology asset, to determine preferred technology blends and business delivery approach which brings the most benefit to car park asset owner and the local area. The materials should be structured so that the user can follow a clear, well evidenced logic pathway to their preferred choice of solutions for their facility. The materials will need to address issues including but not limited to:

• Network connectivity and resilience

• Technology interoperability

• Whole life carbon and cost/value

• Operational dynamics (e.g., uptake of EV, seasonality of power generation, patterns of car park use)

• Finance sourcing, revenue creation in current and best estimate future market conditions

• Financial and economic performance

• Use of power onsite/offsite by different parties (via the grid or not)

• Most appropriate delivery and operating business arrangements including procurement

• Risk identification and management.

The work will need to establish a template of inputs, analytical methods, and outputs (e.g., standard data capture, benchmarking, cost appraisal methodologies, sensitivity analysis) with outputs that form the inputs in line with HM Treasury Green Book guidance for outline business cases.

The scope of the work shall comprise of the following:

1. Based on discussion with the project team, identify base case and most common variants for modelling

2. Draw up and gather input data sets, assumptions and co-dependencies and arrange them in a way that they can be used by a range of project developers

3. Identify technical requirements and considerations to inform initial design of any schemes

4. Assessment of locality energy conditions i.e., power distribution network status and potential for change, demand, and generation (current and future) and potential for connection to the grid and local private wire loads

5. Create a minimum suite of scalable designs utilising as a minimum solar PV as the onsite generation technology, allowing additional low-zero carbon technologies to be incorporated; these will include Electric Vehicle charging provision, battery storage and wind power as well as the management solutions (e.g. technical and financial performance management software) although not be exclusive to these technologies and solutions

6. Design a financial model for evaluating different scenarios to generate a set of key project performance metrics including IRR, NPV, Payback Period, CAPEX, OPEX, kWh generated and used on-site and exported, CO2 saved and any other key outputs relevant to building a robust business case. Cost and revenue assumptions will be based on up-to-date market conditions allowing sensitivities to be modelled

7. Design of decision logic to allow different scheme and site operating configurations to derive most appropriate options for assessment using the materials.

Key delivery milestones

• Test product available for trial – end of January 2024

• Trials run on agreed sites and delivery plan prepared for review by the project team – End of February 2024

• Package revised based on team review – End of March 2024

Collaboration in design

The project team wish to deliver this project and its deployment through co-design and collaboration.

4. Timeline

PIN released: 20/10/2023

Register of Interest deadline: 27/10/2023 at 12 PM.

Anticipated date for Request for Quotation publication: 27/10/2023

Anticipated Contract Start Date: 20/11/2023

Anticipated Contract End Date: 31/03/2024

II.2.6) Estimated value

Value excluding VAT: £56,000

II.3) Estimated date of publication of contract notice

27 October 2023

Section IV. Procedure

IV.1) Description

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: No

Section VI. Complementary information

VI.3) Additional information

This requirement will be sourced via a Request For Quotation (RFQ) issued by the Authority on the 27th of October 2023.

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Everyone's Essex

'Everyone's Essex' sets out four strategic aims and 20 commitments. Within the strategic aim of "Environment" there are the commitments:

• Green Growth: We will develop Essex as a centre for innovation, supporting new technologies and business models to enable our economy to transition to net zero and secure green jobs for the future by ensuring we have the right local skills and drawing in investment opportunities.

• Net Zero: We will work across the Council and the County to hit our net zero targets, by ensuring that the Council significantly reduces its carbon footprint whilst also supporting an acceleration in the progress towards sustainable housing and energy…across the county.

• Transport and Built Environment: We will deliver a step change in sustainable travel across the county, by growing passenger transport and active travel, and will ensure we support the move towards net zero, climate resilient developments, including our new garden communities, by delivering sustainable, healthy neighbourhoods for the future.

As part of this commitment, Essex County Council are keen to explore opportunities to develop a modelling package to help assess the feasibility and viability for developing Park & Ride facilities as zero carbon facilities.