

Lancaster City Council | Report Cover Sheet

Meeting	Cabinet	Date	23 rd March 2021
Title	STEP Site Nomination – Expression of Interest (EOI)		
Report of	Head of Property, Investment & Regeneration		
Purpose of the Report: Cabinet to Approve the Submission of the EOI			
Key Decision (Y/N)	Y	Date of Notice	
		Exempt (Y/N)	

Report Summary
<p>To approve the submission of an Expression of Interest nominating a site for the Spherical Tokamak for Energy Production (STEP) project to the United Kingdom Atomic Energy Authority (UKAEA)</p> <p>In accordance with the Constitution Part 3, Section 3 of Overview and Scrutiny Procedure Rule 17 the Chief Executive has consulted with the Chair of Overview and Scrutiny in relation to Urgency and Call-in regarding this item. The reason for the urgency is that the Expression of Interest needs to be provided before the 31 March and if the report was called in the deadline would pass for the submission of the expression.</p>

Recommendations						
To submit the Expression of Interest by the deadline 31st March 2021						
Relationship to Policy Framework						
Conclusion of Impact Assessment(s), where applicable						
<table border="1"> <tr> <td>Climate Not known at this stage</td> <td>Wellbeing & Social Value See Introduction below</td> </tr> <tr> <td>Digital Not known at this stage</td> <td>Health & Safety Not known at this stage</td> </tr> <tr> <td>Equality Not known at this stage</td> <td>Community Safety Not known at this stage</td> </tr> </table>	Climate Not known at this stage	Wellbeing & Social Value See Introduction below	Digital Not known at this stage	Health & Safety Not known at this stage	Equality Not known at this stage	Community Safety Not known at this stage
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Digital Not known at this stage	Health & Safety Not known at this stage					
Equality Not known at this stage	Community Safety Not known at this stage					
Details of Consultation						
The portfolio holder has been consulted.						
Legal Implications						
None						
Financial Implications						
None						
Other Resource or Risk Implications						
None						
Section 151 Officer's Comments						

The s151 has been consulted and has not comments to make at this stage

Monitoring Officer's Comments

The Monitoring Officer has no comments to make at this stage

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Links to Background Papers

None

1.0 Introduction

STEP (Spherical Tokamak for Energy Production) is an ambitious programme to design and build a prototype fusion power plant.

It is a UKAEA programme, currently with £222million funding from the UK Government to produce a concept design by 2024.

Beyond 2024, the UKAEA will move into the engineering design and build phases of the programme and will work with a range of partners to deliver the prototype of a commercially viable fusion plant.

The STEP prototype will demonstrate the commercial viability of fusion. The learning from this will enable the future development of a fleet of commercial fusion plants.

Once constructed, STEP will produce net energy and prove electricity can be predictably and stably produced in a fusion power station.

In Autumn 2020, there was an open call to communities across the UK to host the prototype. UKAEA will make a recommendation to the Secretary of State for BEIS on the most suitable locations for STEP following a rigorous process of assessment using a defined set of key criteria.

More information can be found on the siting process on the website step.ukaea.uk.

2.0 Site Requirements

With the plant still in design phase it's not possible to be too precise about what buildings and facilities will be needed on site. This will become increasingly clear in the coming years as the design develops and a site is established.

STEP will have the many features of a fully operational power station, including infrastructure and associated research and development facilities. It is likely to be of a comparable scale and value as any major power station.

The basic site criteria are:

- Minimum site area of 100 hectares
- Access to National Grid
- Local skills base - nuclear supply chain, design engineering, high-tech manufacturing, power station operations, fusion and high-tech R&D
- Transport & Infrastructure – access to strategic road network, rail line a port
- Close proximity to a significant mass of water

3.0 Community Benefits

There will be long term and enduring economic benefits to the host community.

STEP will create opportunities for growth across the UK, with jobs at all levels created in the region. The programme will also have a focus on skills development.

The skills needed will mostly be in science, technology, engineering and maths although there will be opportunities across a wide range of roles and skills.

UKAEA has already allocated resources to support an apprentice training scheme in the area selected to host STEP and will work with local education and training providers at the earliest opportunity.

4.0 Programme

Phase 1 – Produce a concept design by 2024.

Phase 2 – Design development through detailed engineering design, while all consents and permissions to build the plant will be sought.

Phase 3 – Construction of the prototype power plant with completion c. 2040

5.0 Options and Options Analysis (including risk assessment)

Options Analysis
<p>Advantages: The benefits to the community and economic advantages are outlined above. Lancaster City Council is collaborating with EDF at Heysham, Lancashire County Council, Lancaster University and other local stakeholders, institutions, industry supply chain and service providers to gather all relevant information for the EOI. It is understood that at some point in the near future, the decommissioning of Heysham Power Station may be implemented. This would have a significant negative impact on the local economy including revenue loss for the city council. The council has to investigate suitable alternatives to such an event and the STEP programme would provide an enduring benefit for the local economy.</p>
<p>Disadvantages: Not known at this stage</p>
<p>Risks: None at this stage, this is an Expression of Interest</p>

4. Officer Preferred Option (and comments)

4.1 The officer preferred option is to submit the Expression of Interest