

**REPORT OF THE CABINET MEMBER FOR ECONOMIC DEVELOPMENT AND ASSET
MANAGEMENT****SPHERICAL TOKAMAK for ENERGY PRODUCTION (STEP) FUSION PROJECT UPDATE****Purpose of the Report**

1. To provide an update to Cabinet regarding the United Kingdom Atomic Energy Authority's (UKAEA) Spherical Tokamak for Energy Production, (STEP) fusion project and to seek approval for the County Council's further role in facilitating the benefits of the STEP prototype being located at West Burton.

Background

2. STEP was announced as part of the Government's Ten Point Plan for a Green Industrial Revolution in 2020, and is an ambitious Government led programme to design and construct a prototype fusion power plant. It will result in the UK being one of the first countries in the world to commercialise fusion energy and therefore be at the international forefront of the clean energy revolution.
3. The programme is being led by the United Kingdom Atomic Energy Authority (UKAEA) which launched a nationwide search for a site to host its ground-breaking STEP fusion project in early 2021. The decision to select West Burton as the home of STEP was formally announced in October 2022.
4. In line with the UKAEA's project timetable, work is underway on the evidence gathering phase. This is focused on better understanding the wider West Burton site and undertaking detailed site-specific assessments.
5. Between 2024 and 2032, the design of the STEP facility will be further developed through detailed engineering design and, at the same time, planning permission to build the power plant will be sought. The aim is to have a fully evolved design and approval to build by 2032, enabling construction to begin. By 2040 STEP will bring the world's first commercially viable fusion plant into commission.
6. On 6 February 2023 the Science and Innovation Minister, George Freeman, speaking at West Burton, announced the creation of UK Industrial Fusion Solutions Ltd (UKIFS). The establishment of UKIFS will enable STEP to accelerate its journey towards delivery of electricity from fusion energy to the grid. The new body is established as a programme delivery organisation, driving performance and pace and engaging industry in this endeavour. The delivery of STEP will be led by UKIFS, as a wholly owned subsidiary of the UK Atomic Energy Authority (UKAEA), with Professor Sir Ian Chapman remaining as the UKAEA Group CEO.

7. On 19 October 2023, the Minister for Nuclear and Networks, Andrew Bowie MP, further announced the appointment of Paul Methven as the inaugural CEO of UK Industrial Fusion Solutions (UKIFS). The County Council has been working closely with Paul in his role with the UKAEA and welcomes his appointment which ensures continuity of partnership working.
8. Minister Bowie made the announcement during his first visit to STEP's home at West Burton where he also emphasised the wider benefits the programme will bring to the region, saying: *"The STEP programme is at the heart of our Fusion Strategy – key to making the potential of new fusion energy a commercial reality, and to drive economic growth."*

Securing STEP in Nottinghamshire

9. The County Council played a key role securing STEP by acting as the nominating body and working with the landowner, relevant Local Authorities and a wide range of stakeholders such as the Midlands Engine, D2N2 LEP, local universities and businesses to promote West Burton as the site for STEP. The Council continues to play a key role in promoting STEP by securing stakeholder engagement and ensuring major economic funding initiatives such as the East Midlands Investment Zone are linked closely to the presence of STEP in Nottinghamshire.

Ambition 7 of The Nottinghamshire Plan 2021-2031 - Attracting investment in infrastructure, the economy and green growth - states that the Council will: *"with the owners of Nottinghamshire's coal-fired power stations, we'll plan long-term futures for them to secure investment and create new jobs. We'll also continue working with our partners on technological innovations like Spherical Tokamak Energy Production (fusion power) to benefit Nottinghamshire's economy and environment."*

STEP Enabling Collaboration: a proposed approach update

10. In order to build on the successful collaboration that helped to secure STEP, the Council and key stakeholders have continued to shape the approach to collaboration as proposed in a previous report to Cabinet in March 2023. This approach is building a strong network to ensure that the socio-economic benefits are realised for communities, businesses, and academic institutions across the county and wider geographic area.
11. Continued progress has been ensured through the STEP Collaboration Programme Team which has continued to meet monthly, and the Programme Interface Board which has met on a regular basis.
12. At a more strategic level the STEP Strategic Collaboration Group held its inaugural meeting on 20 September 2023. Chaired by Sir John Peace (Midlands Engine) with representatives from EDF, UKAEA, academia including Nottingham University and the Energy Research Accelerator (ERA), MPs, Midlands Connect, and Bassetlaw District Council. The representatives from the County Council included the Chief Executive, the Leader and the Cabinet Member for Economic Development & Asset Management.
13. The Group was set up to support and create an attractive inward investment environment for fusion and associated industries in the region. Its aims are to maximise the benefits of the STEP programme being located in Nottinghamshire, and to promote wider enabling matters not covered by the STEP programme but complementary to it. It will also provide an ambassadorial role linking into government departments and agencies and encouraging and working with fusion companies and organisations wishing to relocate to the region to better understand the conditions required to improve the long-term success of the region as a base for such industries.

14. The Group was keen to ensure that it is action driven and the following were the essential actions which emerged from its first meeting:

- *Widen the group to include representatives from Department for Levelling Up, Homes and Communities (DLUHC) and Department for Energy Security and Net Zero (DESNZ), Lincolnshire County Council, West Lindsey District Council and the East Midlands Combined Authority.*
- *Further develop the partnership working between the different parties as the detail around the STEP project increases.*
- *Commission the STEP Economic Impact Assessment (EIA).*
- *Begin work on developing a vision for the local area around the STEP site at West Burton including the two other decommissioned coal fired power stations at Cottam and High Marnham. Ensuring the vision for the area ties into the UKAEA's vision that is being developed specifically for the STEP site at West Burton.*
- *Working collectively to identify and start to develop transport schemes that would be required for the STEP development due to long lead in times.*
- *Ensure that these meetings happen on a more frequent basis than that originally proposed. The next meeting of the STEP Strategic Collaboration Group is scheduled for 31 January 2024.*

15. Actions taken to date:

- All the additional organisations proposed have been approached and all have agreed to join the Group as active participants.
- In terms of further developing the partnership as STEP progresses, key considerations are resources and capacity. The time is right to consider further resources and officer capacity. In this respect, establishing a dedicated Programme & Stakeholder Manager should be considered and funding opportunities for the role explored further. The County Council could act as the employing body as it has done for the emerging EMCCA secondees and interim appointments.
- It has been agreed that the cost of the EIA will be made up of contributions from the UKAEA, Nottinghamshire County Council, Bassetlaw District Council, Lincolnshire County Council and West Lindsey District Council. The Cabinet Member for Economic Development & Assessment Management has approved the County Council's contribution and that the County Council undertake the procurement of the EIA on behalf of the STEP partners.

Emerging vision

16. Following the direction given by the Group, consideration is now being given to how best to develop a strong and coherent partner vision for STEP, to act as a platform for the longer-term development of the programme and the North Notts area. It is intended that the vision will set out how STEP is an anchor for the wider area and a cluster point for green industries, helping STEP partners to attract major industry, innovative businesses and research and design, and other investment in fusion, in clean energy, and related supply chains from around the world. North Nottinghamshire has real potential, with its energy infrastructure of former coal fired power stations, alongside other opportunities from Government, such as the East Midlands Investment Zone with its focus on green industry and advanced manufacturing, to be a national and internal focal point for inward investment over the coming decades. The emerging East Midlands Combined County Authority will be a catalyst to help

harness investment, boost local skills and deliver the infrastructure needed to ensure the maximum possible benefit from STEP for residents.

17. The vision for STEP will also consider emerging Nationally Significant Infrastructure Projects (NSIPs) in the area, to support a proactive approach to integrated development that will best support STEP and ensure the greatest and most sustainable set of benefits for the region. Given the desire to develop a unified vision for the area, driven by green industry and advanced manufacturing that offers both high skills and high-volume employment, STEP partners will look to work collaboratively with all private sector partners (including energy promoters) to deliver and achieve shared long-term objectives for energy generation in the area.
18. Work is underway to consider the joint commissioning approach for the wider vision described above. In addition, the UKAEA has appointed transport consultants to commence the site-specific transport requirements. This will interrelate with the wider visioning work to ensure a comprehensive and strategic long-term consideration of transport requirements.

Other Options Considered

19. The selection of the West Burton site has secured the high-profile STEP project in Nottinghamshire. This will result in the creation of thousands of highly skilled jobs in Nottinghamshire and across the East Midlands and drive the green industrial revolution. As a result, the 'do nothing' option was discounted.

Reasons for Recommendations

20. Fusion generated energy is needed to radically decrease carbon emissions. The County Council has an ambition to raise the profile of Nottinghamshire, doing all the authority can to create the best conditions for investment and growth. Nottinghamshire as home to the UK's ground-breaking prototype fusion power plant will pave the way to a supply of low carbon, clean energy and help support thousands of new highly skilled jobs.
21. By acting as the nominating body, the County Council has been instrumental in securing STEP in the County. It can continue to facilitate the delivery process and ensure that the knowledge from a wide range of bodies and stakeholders can be harnessed and fed into the next stage to ensure economic growth opportunities are fully realised.

Statutory and Policy Implications

22. This report has been compiled after consideration of implications in respect of crime and disorder, data protection and information governance, finance, human resources, human rights, the NHS Constitution (public health services), the public sector equality duty, safeguarding of children and adults at risk, service users, smarter working, sustainability and the environment and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

Financial Implications

23. There were short term County Council resource requirements to support the successful STEP site nomination submission which amounted to £50,000 which was funded through the Investment and Growth Service budget.

24. The focus on supporting the additional work for the final stages of the nomination process were identified as an additional budget requirement of up to £100,000 including programme leadership, technical information gathering, research, public relations, programme coordination and associated activity. A range of these resources including officer capacity have previously been commissioned through Arc Partnership Limited. Those costs were met from the Investment and Growth Services budget for major projects.

25. Stakeholders including the UKAEA, Midlands Engine and Bassetlaw District Council have combined expertise and financial resources in order to fund studies such as the economic impact assessment. The County Council provided an allocation of up to £200,000 from the existing Investment & Growth Services budget to continue to develop the STEP programme for economic growth alongside contributions from other parties.

RECOMMENDATIONS

It is recommended that Cabinet:

- 1) notes the current proposals for the regional collaboration arrangements which continue to be progressed as outlined in the report, subject to any future approvals by the relevant decision makers required to establish these bodies, agree their terms of reference and nominate relevant members and officers to them;
- 2) approves the building of capacity across the partners to drive the STEP programme forward;
- 3) agrees to receive a further report to review the delivery of STEP and the collaboration arrangements in twelve months' time.

Cllr Keith Girling

Cabinet Member for Economic Development and Asset Management

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26. Constitutional Comments (LW 28/11/2023)

The recommendations fall within the remit of the Cabinet by virtue of its terms of reference.

27. Financial Comments (PA 23/11/2023)

The financial implications are set out in paragraphs 23 to 25 of the report. A sum of £200,000 has been allocated within Place major projects in the Investment and Growth Services budget to further the necessary work to support the STEP programme, including the economic impact assessment.

Background Papers and Published Documents

Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

- [Policy Committee 17 March 2021: A zero carbon energy future for the UK: Potential sites in Nottinghamshire for energy production](#)

- Economic Development & Asset Management Committee 7 December 2021: [A zero carbon energy future for the UK: potential sites in Nottinghamshire for energy production](#)
- [Cabinet 3 March 2023: Spherical Tokamak for Energy Production \(STEP\) fusion project update](#)

Electoral Division(s) and Member(s) Affected

- All.