

# The Severn Edge (Bro Hafren) Bid To host the UK's first fusion energy plant



Western Gateway Porth y Gorllewin



NUCLEAR SouthWest

# Forest of Dean Economic Partnership Meeting April 2022

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The Opportunity

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Severn Edge STEP

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What Next

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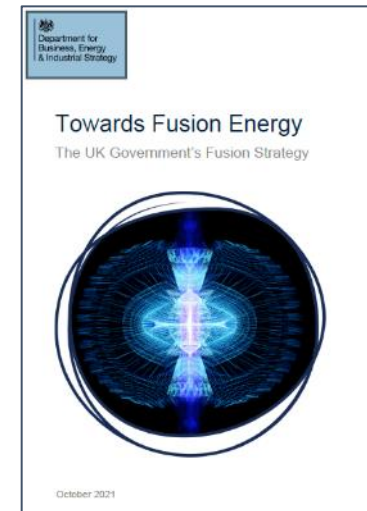
Discussion

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# The Challenge

- Globally need to de-carbonise, to mitigate climate change
- Demand for electricity is forecast to at least double and possibly quadruple at peak times
- Renewable energy a big part of energy mix but need reliable 'always on' low carbon power, necessary to phase out fossil fuels, maintain supply, inc energy security
- Role for nuclear: Net Zero Needs Nuclear
  - Technology Roadmap: Large, Small, Advanced
- Role for fusion
  - Towards Fusion Energy: UK Government's Fusion Strategy

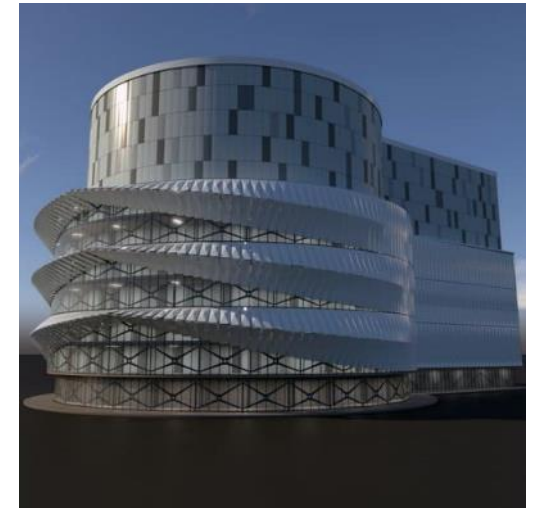


# The STEP opportunity

- Overarching Goals of UK Fusion Strategy:
  - Prototype fusion plant producing electricity by 2040
  - Build a world-leading fusion industry : Export fusion technology
- STEP (Spherical Tokamak for Energy Production), initial £222M
- The UKAEA looking for a home for STEP : Siting process is live, including the Severn Edge Nomination
- Final selection by the Secretary of State for Business, Energy and Industrial Strategy (BEIS), end of 2022



UK Atomic  
Energy  
Authority



# Widespread alliance of support and co-operation





# Severn Edge STEP - Ready To Go

- Community Support
- Real Need and Impact
- Great Industrial Base / Supply Chain
- Strong Science Base
- Committed Political Leadership
- Skills Today, Workforce of Tomorrow
- Benefits two countries



# The Competitors

- Ratcliffe-on-Soar nomination has withdrawn replaced by West Burton, also in Nottinghamshire
- The 5 shortlisted nominations are:
  - Severn Edge
  - Goole – East Riding of Yorkshire
  - Moorside – Cumbria
  - Ardeer – North Ayrshire
  - West Burton – Nottinghamshire



# STEP Timelines 2021-2022

**31 March 2021:** Site nomination deadline  
**SEVERN EDGE NOMINATION SUBMITTED**

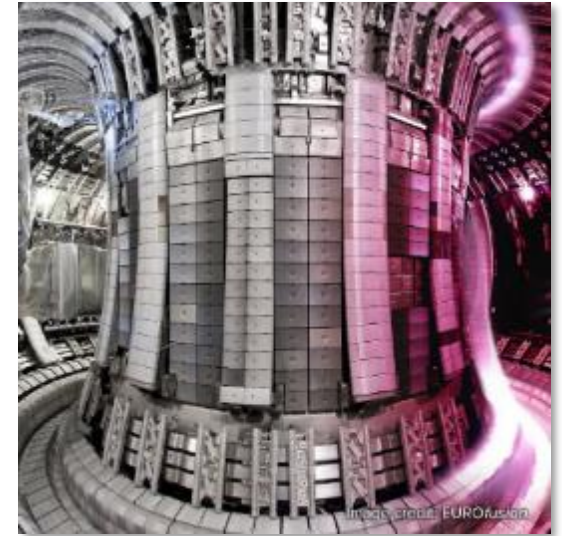
**May 2021:** UKAEA 'showstopper' assessment of nominated sites  
**SEVERN EDGE THROUGH TO NEXT ROUND**

**June 2021 – October 2021:** UKAEA detailed assessment of nominations  
**SEVERN EDGE THROUGH TO LAST 5 NOMINATIONS**

**Winter 21 – Early April 22:** Completion of Technical and Commercial Assessments

**Spring 22 – Summer 22:** BEIS Evaluation and Ministerial Review

**Autumn 22 - Winter 2022** Ministerial Announcement on home for STEP





# Public Engagement

## Public Drop-In Sessions at Oldbury, Berkeley & Thornbury

More than 250 people

Lots of positive feedback

Enthusiasm for the high-quality education, training, skills & business opportunities

Interests in plant location, transport and flood mitigation

## UKAEA Community Webinar

c.135 attendees with compelling enthusiasm and desire to act as Severn Edge Ambassadors

## Western Gateway Annual Conference

Michael Gove

Vaughan Gething



# Next Steps

- Completion of Technical and Commercial Assessments
  - April 2022
- **Severn Edge Webpage now live**
  - A place to register support for Severn Edge
  - Opportunity to comment / show support  
[www.western-gateway.co.uk/severnedge](http://www.western-gateway.co.uk/severnedge)
- **Public Relations Campaign**
  - Raise awareness of Severn Edge in Govt
  - Ready to deliver: STEP + Levelling Up
  - Benefit two countries
  - Global race to be the first



## Pledge your support. Back the Severn Edge bid

Severn Edge is one of 5 shortlisted bids to host the UK's first STEP fusion prototype plant. The winning bid will be announced at the end of 2022. The Severn Edge STEP fusion bid is an incredible opportunity for the people and businesses across the Western Gateway. The competition is strong and we need all the support we can get to demonstrate that Severn Edge is the perfect place for STEP. Give us your support or comments using the boxes below. Back our bid and help us bring STEP fusion to Severn Edge.

\* indicates required

Email Address\*

First Name

Last Name

Give us your support or comments

Marketing Permissions  
Tick the box if you would like to hear from Western Gateway:  
 Consent

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# In Summary

- Continue to make the compelling case for Severn Edge, as the home for STEP  
Technically - Commercially - Economically - Spiritually
- Demonstrating to UKAEA and BEIS the depth and breadth of support for  
Severn Edge STEP: Your voice important  
Communities - Industry - Business - Academia - Politically
- PR Campaign – Stakeholder Pack
- Your views and support matter: [www.western-gateway.co.uk/severnedge](http://www.western-gateway.co.uk/severnedge)

# More information on STEP

<https://ccfe.ukaea.uk/fusion-energy/fusion-in-brief/>

source [https://step.ukaea.uk/wp-content/uploads/2020/12/STEP\\_Background-Document.pdf](https://step.ukaea.uk/wp-content/uploads/2020/12/STEP_Background-Document.pdf))

<https://www.youtube.com/watch?v=KHBUuKfCOyU>

<https://step.ukaea.uk/host-step-in-your-community/>

