

Appendix B

SMART GRID and Energy Trading Research Centre

Opportunity 1: Smart Grid and Energy Trading Research Centre £15m

Project Name	Smart Grid and Energy Trading Research Centre
Size	35,000 sq ft
Indicative Cost	£15m (depending on land price)
Jobs Potential	350-400
GVA Potential	£17.7m
Location	In the enterprise zone (Either directly linked to the Science Park or on new land close to the Airport). Critically, the centre is proximate to the Fab Link grid connection point and potential future Bulk Supply point at Broadclyst.
Partnerships	Links to the University of Exeter Engineering Department, Western Power Distribution Innovation Team, HotSW LEP Energy Group, Met Office.

The role of the Smart Grid and Energy Trading Research Centre can be summarised as follows:

- Attracting companies to come to work with the University of Exeter to establish and grow their business. Companies will be attracted by the co-location with the Fab Link grid connection, opportunity for innovative trials, the clustering of expertise and East Devon SMART Grid system.
- Engaging 'upstream' with cutting-edge power-grids, optimisation and financial mechanisms research.
- Engage 'downstream' with the skills development, Entrepreneurship and Higher Education providers to encourage research spin-outs and graduate/post graduate start-ups.
- Provide a key conduit for SMART Energy projects including research grants, commercial innovation and large-scale demonstrators.

Opportunity 2: East Devon Private Wire Feasibility Study

Project Name	East Devon Private Wire Feasibility Study
Duration	6 month feasibility study
Indicative Cost	£50,000-£75,000
Jobs Potential	TBC
GVA Potential	Potential reduction in grid connection costs with resulting economic benefits
Location	Opportunity to take connection from FABLink
Partnerships	Links to the University of Exeter Engineering Department, Western Power Distribution Innovation Team and HotSW LEP Energy Group.

The aim of the East Devon Private Wire Feasibility Study is to:

- Understand and model alternatives to direct investment in grid infrastructure assuming an immediate investment of £10m and seeking to compare against forecast grid upgrade costs to 2040.
- Develop the techno-economic case for investment.
- Exploring whether battery storage could reduce grid connection requirements.
- Secure potential anchor sites and users, investigating their power needs and operating model to enable the Private Wire network to deliver these.
- Investigate regulatory challenges and how these can be overcome.
- Liaise with BEIS and other funding bodies regarding innovation funding for a large-scale demonstrator.

ZERO Carbon Community and Living Lab

Opportunity 3: Zero Carbon Community and Living Lab

Project Name	ZERO Carbon Community and Living Lab
Size	Zero Carbon Living Lab focused on the delivery of 1,000 zero carbon homes.
Indicative GDV	£300m-£400m
Jobs Potential	300 ¹ . This would require refinement based on specific benefits of the Living Lab.
GVA Potential	£15.2m ongoing. This could be substantially higher if the community and live lab projects link through to innovation in the built environment.
Location	A network Zero Carbon villages, based on the principles of the 20-minute neighbourhood supported by a Built Environment Innovation Hub.
Partnerships	Links to the University of Exeter, Exeter College, Homes England, and nationally recognised innovators in the Built Environment e.g. UKGBC, LETI

Opportunity 4: Built Environment Innovation and Skills Hub

Project Name	Built Environment Innovation and Skills Hub
Size	20,000 sq ft
Indicative Cost	£10m (depending on land price)
Jobs Impacted	2,000 workers up-skilled annually
GVA Potential	£15m (assumes a blend of increased GVA/job based on skills uplift and new start-ups)
Location	In the enterprise zone (Either directly linked to the Science Park or on new land close to the Airport and Future Skills Centre). Critically, the centre is proximate to the Low Carbon Developments in East Devon.
Partnerships	Links to the University of Exeter, Exeter College, Homes England, nationally recognised innovators in the Built Environment e.g. UKGBC, LETI and local and national contractors and developers (e.g. Bloor Homes, Redrow, Kier etc.).

Sustainable Aviation Research Centre

Opportunity 5: Sustainable Aviation Research Centre

Project Name	Sustainable Aviation Research Centre
Size	35,000 sq ft plus hangar space and re-fuelling facilities
Indicative Cost	£20m (depending on land price)
Jobs Potential	350-400 locally, with significant impact on UK research
GVA Potential	£20m
Location	Located on the North side of the Airport, London Road. The site is currently owned by the Airport.
Partnerships	Linked to a University investment in sustainable aviation research. Exeter Airport. Loganair/Ampaire. Sustainable Aviation UK. Rigby Group Plc and Wider Industry partners.

The role of the Sustainable Aviation Research Centre can be summarised as follows:

- Promoting research into sustainable aviation technology including sustainable fuels
- Providing space for technological advancements into sustainable aviation
- Generating increased use of sustainable flight through the provision of renewable refuelling capabilities, whilst generating new revenue streams
- Provide a commercial base for Sustainable Aviation Research
- Attract Sustainable Aviation companies to establish and grow their businesses at Exeter Airport.

¹ 3.1 jobs for every home built. Drawn from "The Economic Footprint of House Building in England and Wales", 2018. To adjust for potential source bias we have reduced this by a factor of 10 before applying.

Zero Carbon Finance

Opportunity 6: Sustainable Finance Cluster

Project Name	Sustainable Finance Cluster
Size	Initial work-hub cluster 15,000 sq ft with grow on space
Indicative Cost	£6-7m (depending on land price)
Jobs Potential	100-150 locally
GVA Potential	£8.75m, while demonstrating potential for the sector to uplift productivity
Location	A number of locations could be possible. There is potential benefit to locating the cluster next to the Smart Grid and Energy Trading Research centre to combine financing expertise with energy expertise.
Partnerships	Links to the University of Exeter Business School, BEIS, UK Infrastructure Bank, Met Office

Opportunity 7: Crystal Clear Clyst Bond Design Study

Project Name	Crystal Clear Clyst Bond Design Study
Duration	12 month feasibility study
Indicative Cost	£100,000-£110,000
Jobs Potential	TBC
GVA Potential	Potential maintenance and skills development
Location	Opportunity for study to be undertaken locally and skills retained within the region
Partnerships	Links to the University of Exeter Business School, Environment Agency, DEFRA

Clean Growth Gateway Park

Opportunity 8: Clean Growth Gateway Park

Project Name	Clean Growth Gateway Park
Size	Potentially significant site comprising: <ul style="list-style-type: none">• Dedicated EV Service Station• Farm shop• Electric / Hydrogen Freight Re-fuelling facilities• Warehousing• Energy Storage capabilities
Indicative Cost	Private sector
Jobs Potential	200+ depending on site configuration
GVA Potential	£10m but potentially larger depending on site configuration
Location	Within proximity to the Strategic Road Network
Partnerships	Local food and drink supplier



The aim of the Clean Growth Gateway Park and Mobility Hub is to:

- Support the transition to electric passenger vehicles and provide future facilities and infrastructure for zero carbon freight.
- Offers a potential site for a Mobility and Interchange Hub to reduce personal travel into Exeter and wider developments.
- Offers the potential to remove congestion from the Sandygate roundabout (but may require closure of the Exeter services).