



**Report to the
Partnership for Urban South Hampshire
Overview and Scrutiny Committee**

Date: **24 May 2016**

Report of: **The Energy and Green Economy Delivery Panel, Alex Parmley,
Corporate Director, Eastleigh Borough Council**

Subject: **Energy and Green Economy – Progress Report and future plans**

SUMMARY

At the meeting of 26 March 2012, the Joint Committee agreed a strategy and approach to developing a low carbon economy with a view to growing business and jobs. This sector was recognised as a strong growth market for the South Hampshire area due to its R&D strengths and the range of businesses within the area. The strategy was incorporated in to the Energy and Green Economy element of the PUSH business plan, attached at appendix A. A partnership group which has subsequently been branded “Future Solent”, was established with the Hampshire Chamber of Commerce and the support of Solent LEP, as a vehicle to engage businesses and the universities in the delivery of the strategy. PUSH has remained central to the delivery of the strategy and is currently represented at Officer level by Alex Parmley, lead for Energy and Green Economy. This report sets out the progress made to date updating on the previous report to the Joint Committee in September 2014 where PUSH agreed to support the objective of developing a Cleantech Cluster. It also sets out the future objectives and requests PUSH’s continued support.

RECOMMENDATION

It is RECOMMENDED that the Overview and Scrutiny Committee:

1. **NOTES** the contents of this report and the progress to date;
2. **SUPPORTS** the ambitions for the next 5 years to support the development of business opportunities and jobs in the low carbon economy of South Hampshire;
3. **NOTES** financial support of £20,000 for the project by PUSH to ensure the continued development and success of Future Solent and enable the development of “Greentech South”, the UK’s leading Cleantech Cluster, to become financially self-sustaining and securing of additional external resources to support business growth and innovation.

1. Background

- 1.1 At its meeting of 26 March 2012, the Joint Committee agreed a strategy and approach to developing a low carbon economy. This included setting up a partnership group which has subsequently been branded “Future Solent”. The approach was supported by Solent LEP at their board meeting in July 2012 and has the active involvement and support of the Hampshire Chamber of Commerce.
- 1.2 The Green Economy and Low Carbon Economy are interchangeable terms that refer to a number of goods and services that span across a range of sectors. This includes Environmental goods and services such as Air Pollution, Contaminated Land, Environmental Monitoring, Marine Pollution Control, Waste and Recycling, Water Supply and Waste Water Treatment; Renewable and Low Carbon Energy; and Low Carbon such as Alternative Fuels, Building Technologies, Energy Management and Carbon Capture & Storage.
- 1.3 Cleantech, also referred to as clean technology, and often used interchangeably with the term greentech, has emerged as an umbrella term encompassing innovative and high technology products and services within the low carbon and green economy. They have the potential to be both disruptive in business and economic terms, but also give rise to competitive advantage to businesses and local economies.
- 1.4 The relative strengths of South Hampshire and the potential opportunity to secure jobs and business growth from the growing green / low carbon economy have been outlined in detail to the Joint Committee previously but can be summarised as:
- UK green goods and services market growing by 5% per annum for the past 5 years. In 2013 the sector had £122bn turnover (double that of automotive industry and GVA five times that of the UK aerospace industry) and employment grew by 12 percent between 2010 and 2013. (BIS , March 2015)
 - The UK now accounts for a 3.7 per cent share of the global Low Carbon Environmental Goods and Services (LCEGS) market which is valued at £3.4tr and the UK currently lies 6th in the league table of national economies for its green economy sector based on value of sales.
- 1.5 Research undertaken on the low carbon economy across South Hampshire in 2012 estimated that the area supports around 1300 businesses and c.15,200 jobs with particular clusterings around Southampton, Portsmouth and the Isle of Wight. In Southampton, the largest sub-sectors are Building Technologies and Environmental Consulting and in Portsmouth, the largest company figures are Building Technologies followed by Recovery and Recycling with Environmental Consulting and Waste Management jointly holding third position. By employment

the largest sub-sectors in South Hampshire are Wave & Tidal, Environmental Consultancy and Building Technologies.

1.6 An assessment of the market opportunities shows particular Solent strengths and opportunities for continued growth in the following areas:

- Offshore renewable energy - with the Solent being particularly well placed to become a European and International leading area for tidal energy technologies
- Energy and waste efficiency: there are opportunities to increase the local supply chain content of energy efficiency measures and retain energy spending in the local economy as well as increase business competitiveness
- Marine monitoring: an example of a high value market that Solent firms are well placed to expand is that of marine survey and data monitoring – building on skills developed through Naval contracts and sensor research.

1.7 In addition, the universities and other research centres in the sub-region represent a source of strength and potential in developing the green economy with expertise in renewable energy, building technologies and the built environment, sustainable transport, natural environment management, biodiversity & monitoring, Marine Sciences, Geohazard Assessment, and Sustainable planning & communities.

1.8 Research by Future Solent and PUSH as part of the Solent Energy Strategy and a “Mini Stern” style report over the course of 2014-15 found that the Solent has the potential to generate Annual savings for the region of £508 million to businesses and householders and an additional Gross Value Added (GVA) of £102.7 million as well as the creation of over 2000 new jobs through investment in energy efficiency and energy generation within South Hampshire. (The Solent Energy Strategy forms a separate report to PUSH)

2. Progress and Achievements to date

2.1 PUSH initially committed resources to the establishment of Future Solent in the form of a temporary, part-time Programme Manager and an intern position to develop the partnership and programme. PUSH has also provided financial support to attracting external funds. Largely as a result of PUSH’s support and investment, Future Solent has had considerable success in attracting resources to support the delivery of the strategy and programme, and has now secured in excess of £30 million investment in the low carbon economy since October 2012. This includes:

- Future Solent Green Growth RGF Programme - £18m programme with £3m of government RGF which is supporting the growth of innovative green economy companies and the development of Hampshire Community Bank

- Environmental iNet - £1.2m programme with £600k from ERDF - fostering links between 3 universities with expertise in environmental / Cleantech fields and businesses operating in or wishing to move into Low Carbon and Environmental Goods and Services (LCEGS) markets.
- LoToNo - €750k programme with €696k from European Commission. LoToNo is a two-year project promoting emerging industries in the low carbon sector helping them connect with a wide network of expert international resources and access and share innovation
- SAVE – Solent Achieving Value from Efficiency - £10 m programme with £7m from Ofgem, led by SSE as DNO. The project aims to trial and establish to what extent energy efficiency measures can be considered cost effective and predictable and a sustainable tool for managing peak demand as an alternative to network reinforcement. The project is a pilot that if successful, could lead to national roll out and case study.

2.2 As a result of the resources and investments secured the following outputs and outcomes have been delivered to date:

- 65 SMEs across the Solent have been supported to develop innovative new low carbon products and services – many of these are internationally significant and have the potential for high growth and export, with some companies already moving in to export (a profile of some of the companies supported is attached at Appendix B)
- 150 new high value jobs created to date in the Solent Region with an average salary of £30,000 and on target to create 350 by the end of the programme
- “Environmental Technology” Hub created at the University of Portsmouth
- “Wireless Technology” hub created for the Universities of Portsmouth and Southampton

2.3 The development of a Cleantech Cluster in South Hampshire was first considered by PUSH in 2009. Last year PUSH gave its support for the creation of a Cleantech Cluster to support innovative companies in South Hampshire. This included providing match funding towards the employment of a project manager to develop the cluster, the main funding coming from the LoToNo project and employment being with Eastleigh Borough Council. “Greentech South” – the innovation and technology cluster, has now been established with over 100 companies and organisations signing up as members. Greentech South, is the first Energy and Environment sector Cluster in the UK to achieve Bronze accreditation under the EU Cluster Excellence Programme, in recognition of the quality of the support it offers to innovative, high growth potential companies. The ambitions for Greentech South are outlined in the next section of the report.

- 2.4 Progress continues to be made on the development of a Hampshire Community Bank. The aim of the bank is to fill the funding gap to SMEs to support their growth – SMEs continuing to report difficulties in securing affordable loan capital from the national / international banks despite government policies to encourage this. Once established the bank will also support lending to green economy projects which, whilst profitable, are not attractive to the big banks due to the longer payback periods for investments. The establishment of a Hampshire Community Bank has been supported by the Future Solent Green Growth Programme which as well as start-up finance, has commenced lending to SMEs in the region with £1m lent to date, with the support of Eastleigh Borough Council. The proposals to establish the bank have recently passed through a due diligence process to satisfy investors (principally local authorities and the universities) of their robustness. Plans are now on track to secure a banking licence in early 2016, although further lending to SMEs may be possible before that date.
- 2.5 Future Solent continues to engage with the business community in taking forward its proposals. As well as business representatives on the Board and business members of Greentech South, Future Solent holds an annual conference to demonstrate progress and to engage businesses and other partners in shaping future plans and ambitions. The fourth Future Solent annual conference was held at the Ageas Bowl Hilton Hotel in October 2015 and was attended by more than 250 delegates with more that 200 from the green and low carbon economy business sector. The input from delegates at the conference has helped shape future plans and ambitions of Future Solent.

3. Future Ambitions

3.1 The proposed ambitions for Future Solent Partnership for the next 5 years are:

- To provide intensive support to 100 innovative companies
- To be internationally renowned as a cluster of financially self sustaining businesses
- 10% of the energy used in the Solent area will come from within the Solent area
- Every local community in the area will benefit from a Future Solent Project
- Hampshire Community Bank will be loaning £120m pa to local businesses
- We will have had a dramatic impact on energy efficiency (to be quantified)
- The Solent will have its own low carbon and renewable energy company
- Creation of 5000 new jobs
- Strong and productive relationship with our DNO
- Completion of phase one of Greentech South development

These ambitions break down in to more detailed objectives as follows:

- Greentech South:
 - establish a minimum £4 million grant scheme for Innovative SMEs in commercialising ideas
 - Find new markets for export for local Greentech firms
 - Facilitate 200 Greentech apprentices into SMEs within 2 years
 - Build a strong network of active companies with clear areas of specialist interest
 - Create a thriving, financially sustainable and world class Cluster, eligible for EU Gold Level accreditation
- Energise Solent:
 - £2.38 billion new investment into the Region (energy efficiency and energy production)
 - 2,000 new sustainable jobs
 - 8% Carbon savings
 - Create a pipeline of renewable energy projects that will create 10% of the region's energy
 - Support for a vehicle to drive renewable and low carbon energy production in the Solent with increase in GVA and retention of spending in the Solent economy
 - Solent Woodfuel project
 - Low Carbon Construction Hub
- Other ambitions and steps:
 - Creation of business and incubation space to support the development of innovative Greentech and advanced manufacturing companies in the West and East of the Solent and the Isle of Wight
 - Support for skills and supply chain development to support energy efficiency and renewable energy
 - Continued support for the development of a Hampshire Community Bank
 - Continue to secure EU and government funds to support delivery of the ambitions including business growth and new jobs
 - Improve communications with stakeholders, partners and members
 - Develop stronger partnerships with the Local Enterprise Partnerships and Combined Authority

4. Conclusion

- 4.1 Considerable progress has been made through the Future Solent initiative in meeting the aims of the Energy and Green Economy section of PUSH's business plan. This has resulted in support for the growth of innovative companies and the creation of high value jobs across South Hampshire. In addition, it has resulted in an Energy Strategy for the Solent with support across the sectors, and which will produce economic benefits for South Hampshire. A Cleantech Cluster, "Greentech South" has now been established but has some way to go to become self-sustaining. PUSH has received an excellent return on its investment in the past three years which has levered in over £30 million of investment in to the low



carbon economy in South Hampshire enabling the economic and business benefits outlined above to be delivered. However, continued support is required to develop the partnership, meet future ambitions and reap further rewards for all the local authority areas in the sub-region. Therefore PUSH has been requested to support the continued development of Future Solent and Greentech South including endorsing the ambitions for the next five years and providing funding support of £20,000 for 2016-17.

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Appendix A

PUSH Energy and Green Economy Business Plan

Panel Aims

1. To support and promote the development of the Green Economy and in particular, new Low Carbon & Green Technology, capitalising on the world class research in the sub-region in to green technologies and turning these in to business opportunities, growth and jobs as well as supporting strong manufacturing
2. To promote Resource Efficiency in homes and businesses ensuring our homes and businesses minimise waste including waste of energy, to support household disposable income and business competitiveness
3. To support the generation of Secure, Renewable & Low Carbon Energy in the Solent ensuring economic benefits, energy security and decarbonisation

Outcomes (which projects are judged against)

- Business growth
- New/safeguarded jobs
- Develop appropriate skills base
- Measurable carbon reductions

The Panel will take forward the following actions and projects:

- Support the continued development and implementation of the Future Solent Partnership and Projects
- Complete an Energy Strategy for the Solent
- Work with local authorities and businesses to commence implementation of the Energy Strategy
- Support the Implementation of the Future Solent Green Growth Programme and the creation of 315 new green economy jobs
- Continue to support the development of the Solent Green Deal and ECO Partnership and the projects funded by the DECC Communities Fund, including supporting supply chain development and creation of apprenticeships
- Explore other opportunities to progress energy efficiency in homes and businesses in the Solent
- In the absence of PUSH funding, seek external funding to develop a Solent Sustainable Food Strategy to increase economic and employment benefits from local food growth and processing and tackle issues of food poverty and food security



- Support the establishment of a Hampshire Community Bank to support SMEs generally and help sustainable funding of green economy and renewable energy projects
- Seek funding and partnership engagement in the development of an Environmental Technologies hub to support creation of new and growth of existing businesses and take advantage of the sub-regions research assets and capabilities



Future Solent Green Growth Programme Sample of businesses assisted

Gemma Lighting - Portsmouth

Gemma Lighting, a Portsmouth based LED lighting company applied for and succeeded in winning a Green growth Grant. Initially this helped to create five new jobs in engineering and research and development. These roles will help complete the development of a new, leading edge technology, solar LED light. In addition, the creation of a further 15 jobs in the manufacturing sector is planned over the next three years.

MD Craig Manuel says “We are proud to be a British manufacturer and we are glad the team at Future Solent have supported our proposal.”

Recycled Assets Company - Portsmouth

This innovative company has developed a sustainable biomass fuel product which can be used in both domestic and commercial boilers, stoves and open fires. The fuel is derived from several waste streams including shredded confidential waste paper and wood waste. Owner Jason Bentley (pictured) “Without the support of Future Solent and their network partners this project would not have succeeded. Their partners helped us to shape our proposal and ultimately led to a successful grant application and six disadvantaged people are now employed as a result ”

Global Pollution Solutions - Southampton

Winners of the Innovation Award at this year’s Seawork Expo received a £100,000 Green growth Grant having convinced the Future Solent Investment panel that their innovative oil spill recovery boat has a commercial future

Owner and inventor Paul Jauncey said “the project would have failed if the Future Solent team had not awarded a grant.” GPS now have orders for their boat from the US Coast Guard and Gulf states.

Bowman Power - Southampton

Bowman Power Group of Southampton design, manufacture and sell waste heat recovery systems for reciprocating engines using a technique called electric turbocompounding and a unique micro turbogenerator product. Their systems increase engine efficiency significantly and therefore save significant CO2 and other emissions.



David Lamb Financial Director (pictured with Ellie Bain) “We currently do not have a very high power test facility in house to test these new products (which is about twice the power output of our largest system) and we are therefore investing c£600k in developing our facilities (we currently have to outsource testing of these prototype larger products to Cranfield University but they cannot support volume production). Future Solent helped with a Green grant and a loan from the lending team responsible for the creation of Hampshire Community Bank. This helped speed up the project and will lead to the creation of 20 jobs in the Solent area.”

Sustainable Marine Energy - Isle of Wight

The Isle of Wight’s innovative tidal energy firm, Sustainable Marine Energy (SME), created new jobs as it developed a unique sustainable electricity project thanks to a grant from Future Solent. SME’s PLAT-O system uses the flow of the tide to generate electricity for local communities and is capable of producing sustainable and predictable carbon-free electricity with zero emissions throughout the year. It is also unobtrusive as it sits underneath the sea surface.

Jason Hayman Managing Director of SME, said “We are very excited to receive this funding, and extremely grateful to the Isle of Wight Council and Future Solent for their vision and support which ensure we can deliver key projects and employ more staff for the development of PLAT-O. We are proud of the part we already play in the Isle of Wight’s thriving marine engineering industry as PLAT-O is being designed, built and tested on the Island.”

Sample of other Companies supported:

Business Edge - Waterlooville based air conditioning manufacturer developing a new system that will reduce energy consumption by up to 40%.

KCC – Waltham Chase & Eastleigh based packaging company developing new ready-meals packaging both made of a waste product and compostable, to replace plastic packaging.

SAL - Developer of new life sciences research techniques which save significantly on resources including energy and therefore on costs, located at Southampton Science Park.

SEAB - Developer and manufacturer of “Muckbuster” mini AD plants located at Southampton Science Park.

Senical - Portsmouth based developer of smart fuse technology.

Tapflo - Pump Manufacutrre based in Chandlers Ford developing a new highly efficient type of compressor which will save energy usage and costs.