

REPORT TO: Environment and Urban Renewal Policy and Performance Board

DATE: 21st November 2012

REPORTING OFFICER: Strategic Director, Policy and Resources

PORTFOLIO: Economic Development / Environmental Sustainability

SUBJECT: Liverpool City Region Sustainable Energy Action Plan

WARDS: Borough Wide

1.0 PURPOSE OF THE REPORT

- 1.1 This report should be read in conjunction with the agenda item on the EU Covenant of Mayors as the Sustainable Energy Action Plan forms an action under that pledge.
- 1.2 This report provides a briefing on the Liverpool City Region (LCR) Sustainable Energy Action Plan (SEAP) and the substantial benefits that could be delivered for the City Region and its districts, including Halton. The report sets out how, through the Local Enterprise Partnership (LEP) Low Carbon Economy Committee, the SEAP will be implemented.

2.0 RECOMMENDATION: That the Board

- 1. review the Liverpool City Region Sustainable Energy Action Plan, which forms a programme and framework for the City Region to advance its sustainable energy activity;**
- 2. recommend that Executive Board endorse the SEAP document; and**
- 3. receive progress reports on the SEAP Programme at appropriate periods.**

3.0 SUPPORTING INFORMATION

- 3.1 A Sustainable Energy Action Plan (SEAP) has been prepared for the City Region by the Merseyside Advisory service (MEAS) and consultants ARUP, using external funding from the CLASP (Climate Change Skills Fund). It is in response to the substantial opportunities that a low carbon economy could bring to the region both in terms of economic prosperity and sustainability. The SEAP was officially launched in July 2012. The LCR SEAP is a live document and will be updated on a periodic basis as and when required.
- 3.2 The SEAP has been welcomed by both the public and private sector, including potential investors and energy companies as it provides a larger

scale and more co-ordinated response to the energy agenda for the City Region.

3.3 The SEAP sets out a number of prioritised actions across the City Region to deliver a low carbon economy, with the potential to add value through:

- Joint applications for EU funding and investment opportunities.
- Efficiencies in procurement of goods and services to deliver energy projects.
- Combining projects to increase the scale of energy projects will improve rates of return for investors and help to de-risk investment decisions.
- Development of a LCR heat network.
- Support for integrated programmes of action such as the development of a domestic, industrial and commercial retrofitting programme and alternative fuel strategy for transport and energy infrastructure.
- If appropriate, to design and develop proposals for a Special Purpose Vehicle (SPV) to reduce risk, attract subsidies, create revenues and deliver economies of scale in the delivery of the programme.
- Work across administrative boundaries and ensure co-ordination.
- Signal to investors and energy companies that the LCR considers the SEAP to be a key priority and driver of the City Region's low carbon ambition.

3.4 A co-ordinated approach across LCR is particularly important due to scale and size considerations for three main reasons. Firstly, given the scale of investment opportunities and the potential economic benefits they could bring we are looking at project values of £10M's to £100M's. For example, the UK Green Investment Bank is looking at a minimum project value of £50-£100M and a minimum investment of £25M. It is understood that other investment funds are similarly significant in their investment aspiration. Secondly, the nature of legal agreements, mechanisms and infrastructure requirements becomes less sensitive to investment scale, therefore biggest investment projects tend to deliver greater efficiency and economic benefit. Thirdly, investors are looking for return on investment (ROI), the larger the project, the required ROI may be smaller but more attractive to investors.

3.5 The LCR SEAP is both a framework and a programme and it also provides significant flexibility within which individual district's projects or plans can be advanced but with the support of the LCR Programme and with potentially significant benefits of joining with other LCR projects over time. Examples of the joint working potential include: procurement, sharing of skills and resources, joining and expansion of heat network infrastructure, delivery of heat to customers outside of a Local Authority boundary, project delivery vehicles, joint funding applications and attracting new developments to an area because there is access to modern, resilient energy infrastructure. A

further benefit of the LCR SEAP is to provide reporting on baseline emissions.

4.0 Governance and Reporting Arrangements

- 4.1 The Low Carbon Economy Committee (LCEC) of the Local Enterprise Partnership, has now taken ownership of the SEAP and views it as a key strategic part of the Low Carbon agenda. Progress with the SEAP Programme will be reported to and monitored by the LCEC and reported to the LEP Board and City Region Cabinet.
- 4.2 The existing SEAP Steering Group will continue to meet to ensure that joint project opportunities are identified and to explore the benefits and options for E.U. Covenant of Mayors signatory.
- 4.3 Reports on progress with the SEAP programme will be reported to Halton's Environment and Regeneration PPB.

5.0 Project Opportunities

- 5.1 A number of projects across the sub-region have been identified as part of the ARUP study. 12 projects with a total investment value conservatively estimated at £200 - £500M have been identified as having immediate potential. Two of these projects are within Halton, one at Runcorn Docks and the other at Daresbury Park. These are listed in Appendix 1. A further 'long-list' of 33 projects with longer-term potential is also being monitored.
- 5.2 Many of these projects are still at a relatively early stage of development. Considerable technical work remains to be done to move the potential projects towards propositions capable of attracting investors to take them forward as commercial / investment-ready propositions. In the interim, and to maintain momentum, funding has been secured to advance work on some projects and ensure that project opportunities do not stall. Additional resources secured subsequently from LEP or other sources will be deployed with the agreement of LCEC and Steering Group at the appropriate time.

6.0 Halton Low Carbon Projects

- 6.1 There are a number of low carbon projects within the borough, all at various stages of development. These are listed below:-
 - **Project Viridis** – Joint Merseyside housing project led by the registered housing providers. Project proposes to use ECO funding from the energy companies to install energy efficient measures in homes across the sub region
 - **Widnes Biomass-Fired Combined Heat & Power Plant** - part of the 3MG Stobart Park development. The proposed plant will supply heat and power to local businesses occupying the park and also possibly supply of heat to the local community via a district heating scheme. The Plant will be utilising recycled wood chip sourced from recovered wood.

- **PDM Group (Granox)** proposed anaerobic digestion plant in Widnes
- **The Heath Business Park, Runcorn** – Opportunities for expansion and growth at the site to make use of renewable energy sources and maximise the benefit of water and heat conservation.
- **Castlefields New Build Homes** - To date 1243 unpopular and energy inefficient deck access flats have been demolished and these have been replaced by over 800 new homes. All new homes have been designed to high energy conservation standards and include the 1st new build properties in Halton with solar thermal heating, rain-water harvesting and heat recovery. Measures designed not only to help the environment, but keep household bills low. Success can be seen in recent research which demonstrates fuel poverty in Castlefields is improving, with one of Castlefields three lower super output areas ranked as 89th best in the country for fuel poverty reduction (out of 32,482 areas).
- **Castlefields Retained Properties** - retrofit 500 retained two-storey concrete system built properties. Phase 1 of this project is being delivered by Plus Dane and LHT working with EON and EDF respectively. Phase 1 aims to provide external wall insulation (EWI) to up to 240 homes, about 30% of which are within private ownership. Phase 1 has been made possible by accessing both CESP (Community Energy Saving Programme) and REECH (Renewables and Energy Efficiency in Community Housing), the latter is a European Funding scheme aimed at stimulating the low carbon economy.
A key benefit of the using EWI is that it not only reduces heat loss from a home without the need for major internal work to the property; it also provides an opportunity to improve external visual appearance of properties. Using EWI on retained stock will enhance the neighbourhood as whole, by complementing new build homes. Partners are currently working to secure funding for a phase 2 EWI project to address remaining two-storey system built properties.
- **Daresbury Park** – An Energy Masterplan will be developed to determine how best to meet the energy demands from the future expansion at Daresbury Park and the wider Daresbury area.
- **Runcorn Docks** – This site is allocated within the Core Strategy for a large residential development, which is likely to bring commercial development opportunities which collectively could benefit from a district heating scheme
- **Brookvale Leisure Centre** – proposed new biomass plant to meet the energy demand of the site
- **Solar panels** – Solar panels have already been installed on a number of council owned buildings, including the Stobart stadium. These are helping meet the energy demands of the site and reducing energy costs as well as generating an income for the council from the Feed In Tariffs (FITs)

7.0 POLICY IMPLICATIONS

- 7.1 There are no direct policy implications associated with the SEAP as the SEAP aims to implement the existing policy direction to mitigate climate change and boost the low carbon economy.

8.0 OTHER IMPLICATIONS

8.1 At this stage there are no other implications associated with the SEAP.

9.0 IMPLICATIONS FOR THE COUNCIL'S PRIORITIES

9.1 The SEAP will support the delivery of Halton's Sustainable Community Strategy particularly in connection to economic prosperity, sustainability and the low carbon agenda. It will bring added economies of scale when coupled with schemes across the sub region. This will bring added value for all, including job and training opportunities, additional funding and the benefits from working in partnership, with each bringing their own resources, knowledge and skills to this agenda.

9.2 The SEAP includes projects that are identified within the Borough's Core Strategy and provide an additional catalyst to deliver these developments.

10.0 RISK ANALYSIS

10.1 Not applicable.

11.0 EQUALITY AND DIVERSITY ISSUES

11.1 Not applicable.

12.0 LIST OF BACKGROUND PAPERS UNDER SECTIONS 100D OF THE LOCAL GOVERN

12.1 Liverpool City Region Sustainable Energy Action Plan (SEAP) – link to the full document is below:

<http://www.liverpoollep.org/PDF/LiverpoolCityRegionSEAP1stEdition190712WEB.pdf>

Project Opportunities Identified

Sub Region LA	Location Description	Space-types Potential customers/partners	Approx Viable Capacity	Potential Constraints	Comments
Halton	Green-field area in Daresbury to West of A56	Existing Business Park Science Park Emerging New employment land build-out New residential	≈ 0.6 MWe	Planned build-out area is relatively large at approx 2KM in length	Existing load centres are at either end of planned development area, with feasibility of connection dependent upon new- build elements and precise types New-build scheme providing opportunity to introduce DH from the start
Halton	Runcorn Docks	<i>Planned</i> Large Residential area Likely requirement for complimentary non-residential spaces	≈ 0.2 - 0.7 MWe (based solely on residential build-out of between 1,200 – 4,000 homes)	Pure residential would not provide suitable mix to maximise plant size	Scheme at this scale is likely to require provision of associated additional Community, Commercial and Retail spaces New-build scheme providing opportunity to introduce DH from the start
Liverpool	City centre area to West of Lime Street station and East of Prince's Dock	Commercial buildings Retail (shopping centres) Hotels Town Hall Law Courts and prisons Leisure facilities Residential buildings (flats)	≈ 3 MWe	Likely costs of pipework installation in dense urban area Mix of land ownership Built heritage Air quality	Any CHP capacity will depend heavily on take-up within identified area SHLAA plans feature new build-out areas in close proximity to priority zone Need to identify potential energy centre sites
Liverpool	Royal Liverpool Hospital & University of Liverpool	Hospital University Campus	≈ 3.5 MWe	Requirement to cross Lime St rail cutting to link to South of University Campus	Royal Liverpool Hospital represents key anchor load
Knowsley	Knowsley Business Park & South of Industrial Park	Existing Commercial buildings Light Industry Emerging New employment land build-out Energos energy-from- waste plant	9.0 MWe (proposed by Energos)	Potential requirement to cross East Lancashire road to access emerging Industrial Park load centres	Significant benefit offered by the commitment of Energos to install generation plant Heat availability not necessarily limited by emergence of related demands
Sefton	Development	Existing Hospital	≈ 1.5 MWe	Planned Kew	Southport &

Sub Region LA	Location Description	Space-types Potential customers/partners	Approx Viable Capacity	Potential Constraints	Comments
	areas around Southport & Formby District General Hospital	Emerging New College Residential Light Industry Hotel		Southport residential development is awaiting cleanup of contaminated land Build-out dates for new King George V College not known	Formby District General Hospital represents key anchor load Good mix of space-types planned within close proximity to Hospital
St Helens	Area around Sutton Leisure Centre and Lea Green distribution centre	Existing Leisure Centre Sports College Distribution Centre Emerging New employment land build-out	≈ 0.5 MWe	Viability will depend on build-out phasing on employment land	Leisure Centre represents potential anchor load
Wirral	Wirral Waters (Peel)	Planned Commercial/Office space Retail & Leisure Residential Hotels	≈ 3.5 MWe	Extent to which heat network could serve entirety of site could depend on timing & phasing of scheme Any anchor load(s) would ideally emerge early within scheme build-out	Potential to size plant against sizeable and mixed heat loads New-build scheme providing opportunity to introduce DH from the start
Sefton	Bootle Docks	Biomass energy plant with allied energy requirements and commercial case energy export needs. Capacity >100MWe.	Application in progress with Major Infrastructure Unit.	Work in Progress	Tie-in potential to Peel Liverpool Waters development (DES 12) Proximity to Renewable Energy Systems Proximity to Sefton Council Public buildings
Liverpool	Liverpool Waters	High density, large scale mixed-use development to modern standards of energy efficiency.	Work in Progress	Work in Progress. Depends on model adopted, could be on-site energy centre or link to existing heat network.	Tie-in potential to Sefton EMR (DES 11) energy centre supplies of energy forming links with wider Sefton community
Liverpool	Eldonian Village	Dual fuel energy centre proposed with district heating network. ESCo arrangement under development.	28MWe (based on information from Eldonian Group.	Engineering constraints.	Tie-in with Liverpool Waters and other local areas.
Knowsley	Jaguar Land Rover		Work in Progress	Work in Progress	