

BRIDGEND COUNTY BOROUGH COUNCIL

REPORT TO CABINET

19 FEBRUARY 2019

HEAD OF OPERATIONS – COMMUNITY SERVICES

LOCAL AREA ENERGY STRATEGY & SMART ENERGY PLAN

1. Purpose of Report.

1.1 The purpose of this report is to present to and seek approval from Cabinet for the Bridgend Local Area Energy Strategy (LAES) and Smart Energy Plan.

2. Connection to Corporate Improvement Objectives/Other Corporate Priorities

2.1 This report assists in the achievement of the following corporate priority/priorities:-

1. **Supporting a successful economy** – taking steps to make the county a good place to do business, for people to live, work, study and visit, and to ensure that our schools are focused on raising the skills, qualifications and ambitions of all people in the county.

2. **Smarter use of resources** – ensuring that all its resources (financial, physical, human and technological) are used as effectively and efficiently as possible and support the development of resources throughout the community that can help deliver the Council's priorities.

2.2 The LAES and Smart Energy Plan were developed on the principles of most advantageous economic transition and therefore offers better use of resources in achieving the decarbonisation of heat through least cost application of technology.

2.3 The decarbonisation of heat offers a significant economic opportunity for the area which can help support the economy and generate jobs and opportunities for businesses within Bridgend County Borough.

3. Background.

3.1 Bridgend County Borough Council (BCBC) has been engaged with the Smart System Heat (SSH) Programme since 2013 when it submitted a Pre-Qualifying Questionnaire (PQQ) to the Energy Technologies Institute (ETI) and was selected from over 70 local authorities from across the UK to be one of the shortlisted 11 prioritised authorities in the SSH Programme (see Figure 1).

Figure 1 SSH Programme Prioritised Local Authorities



3.2 The next stage of the Programme required BCBC to submit a Request for Proposal (RfP) in June 2014 which was again scored and then used to select 3 local authorities from the prioritised 11. BCBC submitted a RfP and was selected as one of the three demonstrator authorities for the SSH Programme (Greater Manchester Combined Authority and Newcastle City Council were the other selected authorities). Cabinet authorised BCBC participation in the SSH Programme in a report presented on the 3rd February 2015.

3.3 The SSH Programme is divided into three phases with a degree of overlap across each phase. The programme follows calendar years rather than financial with the key constituents of all three stages being:

Phase 1 2015 - 2017

3.4 This phase involves using the EnergyPath Network suite of tools to create a Local Area Energy Strategy for Bridgend County Borough.

Phase 2 Development 2016 – 2018

3.5 This phase will involve the development of a Smart Energy Plan and the creation of a “Living Lab” within Bridgend County Borough.

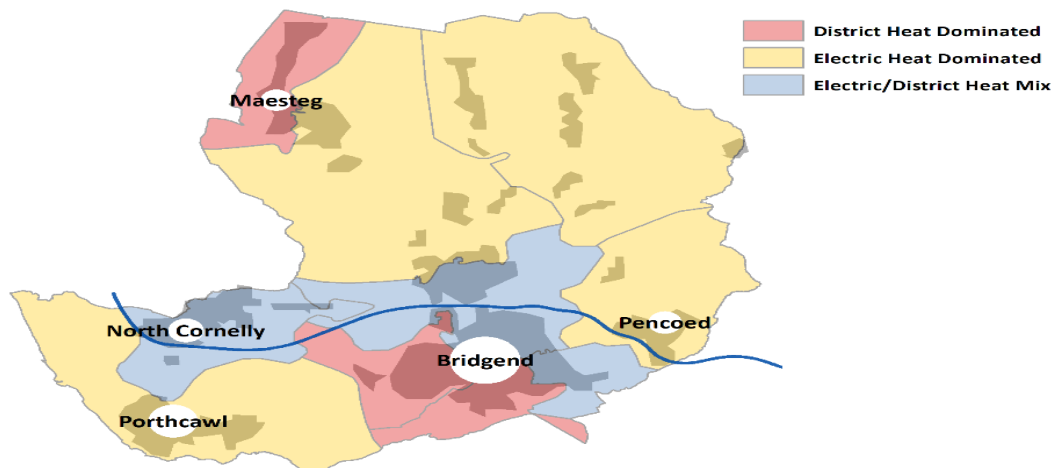
Phase 3 Delivery 2019 – 2025

3.6 This phase will take project proposals from the Smart Energy Plan and deploy them as live projects within Bridgend County Borough. The delivery of Phase 3 is subject to funding and partners being secured to progress with delivery.

4. Current situation / proposal.

- 4.1 The development of a Local Area Energy Strategy is a cornerstone of the SSH Programme. Currently local authorities in the UK are not active players in the energy planning space, however in the future the UK Government position (articulated through the Clean Growth Strategy) is that the decarbonisation of energy and the move to a low carbon economy cannot be delivered by central government alone. Local authorities are considered best placed to drive emission reductions through their unique position of managing policy on land, buildings, water, waste and transport allowing them to embed low carbon measures in strategic plans across areas such as health, social care, transport and housing. .
- 4.2 The SSH Programme has provided BCBC with access to the EnergyPath Networks tool which is an analytical model which considers the most cost effective route for decarbonisation within Bridgend County Borough. A project team consisting of staff from BCBC, Welsh Government, Energy Systems Catapult (ESC), Western Power Distribution and Wales and West Utilities used the EnergyPath tool to identify how Bridgend could meet the UK decarbonisation targets by 2050. The development of the LAES and the Smart Energy Plan has been fully funded by UK Government through the Department of Business Energy & Industrial Strategy (BEIS) and delivered through ETI and the ESC.
- 4.3 The outputs from the EnergyPath model have been used to form the LAES which details how heat within Bridgend County Borough will be delivered in 2050 if the area is to meet its decarbonisation targets. The LAES is attached to this report at Appendix 1. A map showing a decarbonised Bridgend County Borough is shown in Figure 2.

Figure 2 Decarbonised Heat within Bridgend County Borough 2050



- 4.4 The LAES and Smart Energy Plan offer a route to achieving the decarbonisation of heat within Bridgend County Borough. The LAES does not adopt a traditional approach to strategy development in that it does not offer a clear what, when and how activities need to happen in order to achieve the 2050 decarbonisation targets. Rather the LAES proposes a pathway to achieving those targets and then the Smart Energy Plan provides the detail of how technologies, business models and consumer

propositions will be deployed and tested in order that scale up can happen and the 2050 targets achieved.

- 4.5 The decarbonisation transition is arguably the largest economic development opportunity Bridgend will have in the next 30 years. The LAES considers that with a local focus on the decarbonisation of heat the economic opportunity for Bridgend County Borough would be between £7.3 and 7.4 billion. The LAES allows BCBC to take a proactive role in that transition providing opportunities to develop the systems, technologies, services, business models, governance and funding solutions that will be needed and ensuring that Bridgend County Borough secures maximum economic gain from the transition.
- 4.6 The local area energy planning approach will enable the decarbonisation process to benefit all the communities in Bridgend and will enable a strong coordinated approach to be adopted between all the various key stakeholders. The alternative is to wait and hope that the market delivers the change in a way that best serves Bridgend however such an approach will almost certainly mean that the economic gain to Bridgend from the transition will be lost and decisions will be made that are not in the best interests of the communities and businesses of Bridgend.
- 4.7 The Smart Energy Plan was developed out of the LAES and considers the decarbonisation pathway presented within the LAES. It sets out the objectives to meet decarbonisation and identifies the projects and activities that will allow BCBC to respond to the challenge of decarbonising heat within the context of the wider energy system. The Smart Energy Plan is attached to this report at Appendix 2.
- 4.8 The Smart Energy Plan formally maps out the near term delivery of the first phase of the LAES (up to 2025). The Smart Energy Plan is aligned to the Welsh Government Carbon Budget time periods and identifies the projects and activities to be delivered during this period. The Smart Energy Plan aims to deliver the following benefits:
- Decarbonise heat within Bridgend County Borough
 - Stimulate economic growth
 - Provide new job opportunities
 - Attract new and existing businesses to trial initiatives and grow within the County Borough.
- 4.9 The projects listed as deliverables within the Smart Energy Plan are described as:
- Bridgend Town Heat Network Project Phase 1
 - Bridgend Town Heat Network Project Phase 2
 - Domestic Energy Efficiency Project
 - A fully targeted retrofit project using ESC developed tools
 - Hybrid Heat Pump project
 - Caerau Mine Water District Heat Project
 - Creating affordable heat network infrastructure
 - Electrification of heat through the energy as a service provision.
 - Intelligent Bridgend Energy System Design.

- 4.10 BCBC will not be funding and delivering all of these projects. The intention is that the plan acts as the catalyst for Bridgend to grow into a Low Carbon Innovation Zone where both public and private sector investment can be attracted to create the tools, models and supply chains that can be replicated across the UK to ensure that the 2050 decarbonisation targets can be met and that Bridgend can realise the economic benefits accrued from the transition within the UK energy market.
- 4.11 BCBC will not fund and deliver the Smart Energy Plan but will rather adopt the role of enabler providing places and creating the conditions within Bridgend County Borough that will attract private sector partners and the investment required to deliver the Smart Energy Plan. There will be occasions when BCBC plays an active leadership role (Bridgend Town Heat Network and Caerau Heat Scheme) or as part of a consortium (Intelligent Bridgend Energy System Design) but this will be limited. Any major energy scheme which will require internal capital resources will be subject to Council approval for inclusion within the Capital Programme. It is not anticipated that BCBC will be actively bidding for money and managing procurements and contractors to deliver projects contained within the Smart Energy Plan. Rather the role of the Council will be to build partnerships with organisations and support marketing and engagement activities within the county borough around the various decarbonisation activities underway.

5. Effect upon Policy Framework & Procedure Rules.

- 5.1 There are no effects upon BCBC's Policy Framework or Procedure Rules.

6. Equalities Impact Assessment

- 6.1 An equalities impact assessment will be undertaken for the projects delivered through the Smart Energy Plan where BCBC has a clear role to play.

7. Well-being of Future Generations (Wales) Act 2015 Assessment

- 7.1 The LAES and the Smart Energy Plan are a positive step in regard to the Council's role in complying with the Well-being of Future Generations (Wales) Act 2015. The documents show BCBC taking a positive proactive role within the decarbonisation agenda which will ensure that the significant environmental, social and economic opportunities created through the decarbonisation transition of the energy market will be captured for Bridgend.

- 7.2 In terms of meeting the 5 ways of working within the Act:

1. **Long Term:** The LAES and Smart Energy Plan will provide the template and the tools to provide Bridgend County Borough with a decarbonised heat system that meets the UK 2050 decarbonisation targets.
2. **Prevention:** The LAES and Smart Energy Plan will provide an opportunity for all to benefit from the decarbonisation transition and ensure that solutions are designed and available for everyone and not just the ability to pay market.
3. **Integration:** The LAES and Smart Energy Plan offers an opportunity to create a low carbon hub within Bridgend that will offer carbon reductions, reduced fuel bills and create economic opportunities through a clearly identified value chain.

4. **Collaboration:** BCBC is working in partnership with both UK Government and Welsh Government as well as private sector partners to deliver the decarbonisation agenda.
5. **Involvement:** The Smart Energy Plan involves working with a variety of stakeholders to deliver sustainable solutions around the delivery of decarbonised heat for residents.

8. Financial Implications.

- 8.1 The LAES and the Smart Energy Plan have been funded and produced through Phase 2 of the SSH Programme which has been funded through BEIS. BCBC is not committing to funding all of the project proposals included within the the Smart Energy Plan but will play an enabling and facilitation role to bring together the funding partners and the consumers for the successful delivery of the projects. It is not anticipated that funding for all the projects identified will pass through BCBC. Projects such as the Caerau Heat Scheme and the Bridgend Town Heat Network project have clear roles for BCBC but other projects listed within the plan are expected to be delivered through the private sector with no direct financial involvement of BCBC. There maybe occasions (such as the Industrial Strategy Challenge Fund where BCBC and its consortium partners were successful in securing £173,000 from Innovate UK to deliver an energy system innovation project) where BCBC enters into consortia to bid for and deliver projects and under these situations funding would be available to offset staff time, expenses and overhead costs.
- 8.2 Within the Smart Energy Plan both the Bridgend Town and the Caerau Heat Scheme are listed as projects. Both of these schemes are being led by BCBC and whilst discussions are ongoing with UK Government and Welsh Government to meet the funding gaps which still exists on each of these projects.

9. Recommendation.

- 9.1 It is recommended that Cabinet:
 1. Accepts the recommendations of the Local Area Energy Strategy; and
 2. Approves the Smart Energy Plan.

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Background Documents

Energy Transition Plan: Policy and Commercial Insights for Energy System Transformation, Feb 2018