

BRIDGEND COUNTY BOROUGH COUNCIL

REPORT TO CABINET

17 JULY 2018

JOINT REPORT OF THE CORPORATE DIRECTOR COMMUNITIES

INDUSTRIAL STRATEGY PROSPERING FROM THE ENERGY REVOLUTION

1. Purpose of Report

- 1.1 To seek Cabinet approval for Bridgend County Borough Council (BCBC) to be part of a consortium seeking to prepare and submit a proposal to the UK Government to meet the requirements of its Industrial Strategy Challenge Fund (ISCF) as part of the Prospering From The Energy Revolution Programme.

2. Connection to Corporate Improvement Objectives/Other Corporate Priorities

- 2.1 The ISCF supports two of BCBC's Corporate Priorities which are namely:
 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.
 3. **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.

3. Background

- 3.1 The Prospering From The Energy Revolution is part of the UK Government's Clean Growth Strategy and is an ambitious blueprint for lowering carbon emissions, protecting the environment and meeting the UK climate change obligations whilst stimulating growth and prosperity, increasing earning power and creating and supporting thousands of new jobs. The Energy Revolution Challenge is designed to address many of our societal challenges that are linked to energy, namely:

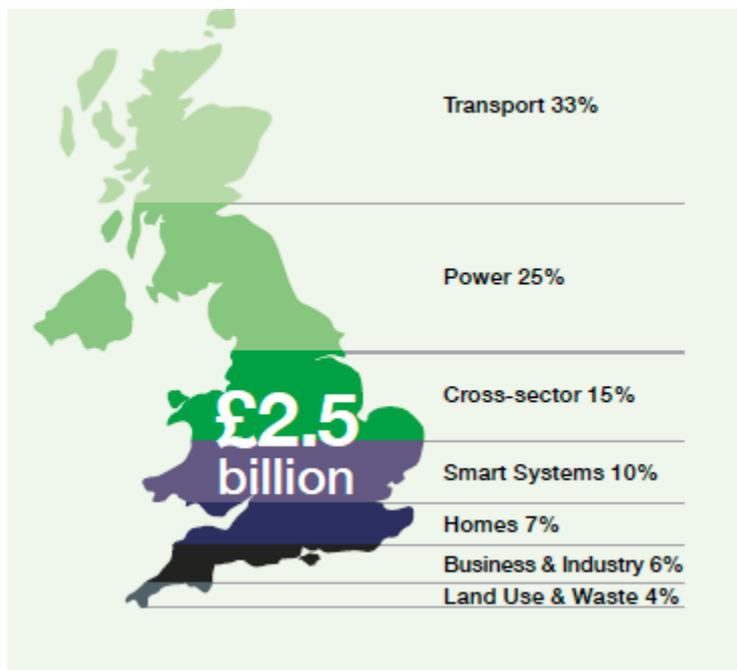
- Clean Air
- Greenhouse Gas Emissions
- Comfort and Mobility
- Cost
- Fuel Poverty
- Energy Security
- Changing Consumer Preferences
- Economic Growth
- Supply chain and skills development

- 3.2 The energy system itself is currently undergoing rapid change due to a number of factors such as:

- Decommissioning of older fossil fuel and nuclear power stations;
- Emergence of wind and solar generation;
- Adoption of electric vehicles;
- Smart meter rollout and creation of new digital platforms and consumer based systems;
- Evolving demand –side management, energy storage and peer-to-peer markets;
- Emergence of hydrogen energy.

3.3 Over £2.5 billion of Government funding will be invested in low carbon innovation up to 2021. 10% of this will be allocated to the development of smart systems designed to provide cheap and clean energy across the heat, power and transport sectors. The long term goal being to ensure that clean technologies cost less than high carbon alternatives and that UK business takes the lead in supplying them to global markets.

Figure 1 Government Funding on Low Carbon Innovation



3.4 The intention is that successful proposals will take an holistic approach to tackling the challenges facing the energy system and

- Design energy systems built around the needs of consumers, local communities and future proofed against change;
- Integrate heat, transport and power to reduce costs and improve efficiency;
- Utilise smarter decision making, best use of information and ICT technologies to improve infrastructure productivity;
- Demonstrate technologies and infrastructures at scale, alongside new business models.

3.5 The Prospering from the Energy Revolution has created a local energy systems fund which contains over £40 million to support smart local energy system demonstrators and designs. The fund is designed to accelerate up to 3 innovative local smart energy system demonstrations and 3 design projects able to deliver new

benefits across the energy value chain by 2022. The fund will run from January 2019 to March 2022 and is open to bids from across the UK.

- 3.6 Total costs can be between £26 and £160 million with private sector match funding being at a 1:1 ratio and leverage funding (public sector investment) being at 3:1. Projects should last 24-36 months, with between 9 – 12 months of operating data secured within that period.

4. Current Situation / Proposal

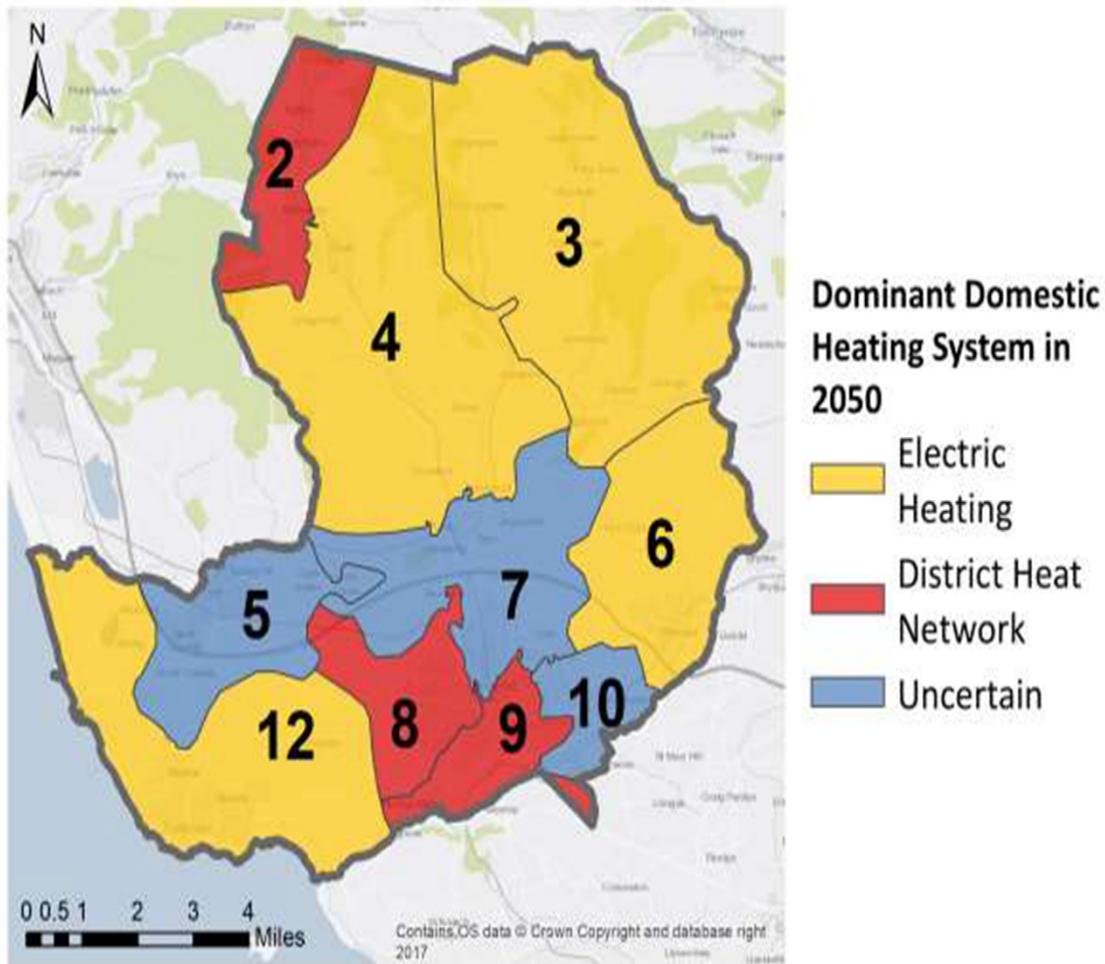
- 4.1 The Prospering from the Energy Revolution Programme is designed to be business led and would be delivered through an innovative and ambitious consortium. The ideal consortium (comprised by Innovate UK) would be comprised of:

- Project Developers
- ICT Specialists
- Technology Developers
- Local Authorities
- Energy Sector Companies
- Research Institutions
- Multi-disciplinary Consultants

- 4.2 The Proposal will be led by Cenin Renewables a local company based at the Parc Stormy site. Hitachi and Jacobs (who are a multi-disciplinary consultancy) are also involved in the development of the proposal.

- 4.3 The strategic basis of the proposal will be to utilise the Local Area Energy Strategy (LAES) (Figure 2) that has been developed for Bridgend as part of the Smart System and Heat Programme alongside the Smart Digital Master Plan created by Hitachi. The LAES shows how heat within Bridgend can be decarbonised out to 2050 to meet UK Government carbon budgets. The digital master plan details how digital technology can develop integrated solutions for the decarbonisation of heat, power and transport that have benefits across the entire energy system.

Figure 2 Local Area Energy Strategy



* Uncertain means there is no dominant solution and there will be a mixture of district heat, electrification and hybrid systems.

4.4 The proposal for the ISCF is subject to commercial confidentialities due to the role of the private sector within the proposal. However the intention is that the Cenin Renewables site near Porthcawl could utilise its power generation capability to become a decarbonised hub. Essentially the proposal is built around the premise that:

1. The energy mix within Bridgend County Borough would be changed and decarbonised;
2. A smart grid would be created led by a primary aggregator (private sector role);
3. Energy generation would become decentralised and decarbonised through the use of local generation (e.g. Cenin site, creation of new CHP assets);
4. Use of innovation tools to create peer to peer trading networks, storage, charging facilities for electric vehicles and new business models;
5. New energy efficiency and storage techniques will be driven by costs and carbon targets;
6. Bridgend will evolve into an inter-connected area where customers will be at the heart of the energy system through connectivity and empowerment;

7. Change will be felt across the entire value chain creating business opportunities for multiple players within the energy space.

4.5 Discussions have been held at a City Deal level and the Bridgend proposal will be a pathfinder project for the Capital Region where learning and supply chain opportunities can be generated for the region. If successful City Deal monies could be leveraged into scheme at a future point.

5. Effect upon Policy Framework & Procedure Rules

5.1 BCBC is not leading the consortium and any projects over which BCBC has direct control would follow normal procurement routes.

6. Equality Impact Assessment

6.1 The BCBC Equalities Impact Assessment Toolkit would be utilised for BCBC elements of the proposal.

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

7.1 The programme is a positive step in regard to the Council's role in complying with the Well-being of Future Generations (Wales) Act 2015. The programme offers an opportunity for Bridgend to be established as a strategic decarbonisation hub within the UK and builds on the work being developed with the Energy Systems Catapult through the Smart System and Heat Programme

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

1. **Long Term:** The programme will provide a low carbon source of heat, power and transport that will provide long term solutions to the decarbonisation of the energy system within Bridgend.
2. **Prevention:** Offering price stability will ensure that decarbonisation offers solutions for everyone not just the ability to pay market.
3. **Integration:** The project 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 project involves working with a variety of stakeholders to deliver sustainable solutions around the delivery of heat and comfort for residents.

8. Financial Implications

8.1 BCBC is not leading the consortium developing the proposal for the ISCF bid and will not be directly handling grant funding for any of the consortium partners. A governance structure for the consortium would be put in place if the proposal was successful. There will be annual stage gate reviews with each partner being responsible for drawing down their own grant monies from Innovate UK. No other partners within the consortium will be responsible for covering partner's

contributions or repaying grant funding due to the actions of other members of the consortium.

- 8.2 BCBC is not expected to offer funding into the consortium beyond what it is seeking to do as part of its commitment to delivering the Bridgend Town Heat Network Project which could form part of the proposal. There still remains a funding shortfall on the Town Heat Network as outlined in the report to Cabinet in April.
- 8.3 There will be an opportunity for the Council to recover project management staff costs from any successful application provided that these do not exceed 30% of the overall project costs. For this reason, it is anticipated that there would be no additional burden to the Council for participating in the Consortium.

9. Recommendations

It is recommended that:

- 9.1 (i) Approve Bridgend County Borough Council participating in the Prospering from the Energy Revolution ISCF proposal.

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Background documents:

- 1. ISCF Introduction Slide Pack**
- 2. Prospering from the Energy Revolution Slide Pack**