

Committee: **Executive Committee**
Date of meeting: **21st July 2021**
Report Subject: **Development of Business Energy Model to enable Business Parks to achieve Net Zero Outcomes**
Portfolio Holder: **Cllr D Davies, Executive Member Regeneration and Economic Development**
Report Submitted by: **Amy Taylor, Team Manager Regeneration Opportunities**

Reporting Pathway								
Directorate Management Team	Corporate Leadership Team	Portfolio Holder / Chair	Audit Committee	Democratic Services Committee	Scrutiny Committee	Executive Committee	Council	Other (please state)
X	X	06.07.21			30.06.21	21.07.21		

1. Purpose of the Report

1.1. To provide the Executive Committee with:

- Details of the background to the Project;
- Progress made as a demonstrator of the Welsh Government Smart Living Programme;
- An overview of the newly established Whole System Business Research Innovation for Decarbonisation (WBRID) Project; and
- An overview of the Blaenau Gwent WBRID Competition.

2. Scope and Background

Smart Living, Welsh Government

- 2.1. The Welsh Government (WG) Smart Living Programme commenced in 2015. Blaenau Gwent was one of the first wave of demonstrator projects across the Smart Living Demonstration Programme. The Blaenau Gwent Energy Prospectus approved by Executive Committee in 2020 identifies the Blaenau Gwent Energy Catalyst Model as a key project opportunity within the Borough.
- 2.2. The Blaenau Gwent Energy Catalyst Project seeks to consider how we can generate local energy, distribute it locally and how we can use it to benefit Blaenau Gwent businesses and residents.
- 2.3. The Project has gone through a number of Phases to reach the current stage of development. During Phase 1, BRE Wales highlighted some of the problems faced by Blaenau Gwent around energy. Fuel poverty is high in Blaenau Gwent which is illustrated by demographic trend across the Borough. The majority of residents rely upon prepayment meters which have the highest tariffs. For residents who have standard meters, they are typically on expensive 'standard' tariffs with many not having investigated switching to lower rate tariffs.

2.4. The breadth of the local energy system in Blaenau Gwent is very wide, so we sought to break down the energy system into groups or categories. We identified four initial categories of buildings across Blaenau Gwent that would be required to form part of a local energy services model. Figure 1 shows details of the four platforms identified.



Figure 1: Blaenau Gwent Energy Catalyst Model – Proposed Energy Platforms

- 2.5. Subsequent phases of the project have considered each of the energy platforms along with consideration of how this can all be brought back together as the Local Services Model.
- 2.6. Across Blaenau Gwent, the Industrial and Commercial sector was found to use the highest proportion of supplied electricity. As a result, the Industrial and Commercial sector platform was selected as the first of the energy platforms to be considered in greater detail.
- 2.7. Another reason for focusing on this platform is the change to Landlord regulations for non-domestic properties. Since April 2018, landlords of non-domestic private rented sector (PRS) properties are not been permitted to grant, extend or renew an existing tenancy if their property has an EPC rating of F or G. Landlords have to ensure their properties achieve a minimum energy efficiency standard Energy Performance Certificate (EPC) Band B by 2030.
- 2.8. Blaenau Gwent is home to 25 Business Sites (**Appendix One**) which includes Business Parks, Town Centres and Out of Town Retail. Our primary focus shall be on what are likely to be larger energy users in Business Parks. The parks across Blaenau Gwent were all developed at different points and as a result vary greatly in age. For example, the oldest of the Council owned business parks are over 60 years old and in some cases this will cause challenges over technologies that can be deployed to support building energy requirements.
- 2.9. This was split into two areas of work, the first being business consumer research and the second platform development:
- Consumer Research focused upon making contact and establishing relationships with various sectoral representative companies across Blaenau Gwent that would help us understand the current energy picture across businesses in Blaenau Gwent.
 - Business Platform Development initially started with building up a picture of the Industrial and Commercial assets across Blaenau Gwent and in later stages looked at the modelling of potential technology solutions.

Business Consumer Research

- 2.10. Miller Research were engaged by WG to undertake the Business Consumer Research Study. The objectives of the study were to develop business knowledge and understanding of opportunities, benefits and risks for businesses within Blaenau Gwent in the area of energy. In addition, we sought to understand the assets of the businesses or landlords to inform development of the business energy platform to align with the Council Smart Living objectives.
- 2.11. The engagement was carried out using 1 to 1 interviews, phone interviews and online surveys. Stakeholder interviews and the online survey noted energy as not the primary concern for businesses, however, it was seen as a top five priority within the next five years, by 53 per cent of businesses surveyed. Interestingly, cost of utilities was seen as the biggest risk for businesses through the online survey and 86 per cent of respondents noted the cost of energy as the highest perceived risk related to energy.

Business Platform Development

- 2.12. Recognising that we have many business parks across Blaenau Gwent, some with similar characteristics and others with different characteristics we recognised that it would not be possible to adopt a 'one-size fits all' approach. Taking this into account we set about developing a virtual 'typical business park' that could be used to test and model the impact of different energy efficiency / generation technologies. AECOM Limited were commissioned by WG to undertake this element of Phase 2.
- 2.13. The purpose of creating the 'Typical Business Park' was to inform decision making about key items such as scalability of solutions and technologies. It also provides a good indication as to what the market opportunities are in relation to technologies in the business sector and the supply model most suited to delivery.
- 2.14. As part of Phase 2A a range of renewable energy technologies and services were considered and whilst some were discounted due to technical compatibility, relevance in their application and economic viability were able to identify a number of opportunities to be explored further. These were:
- Brokerage service operated by the Local Authority which provides:
 - Solar PV (ground and roof mounted)
 - LED replacement lighting
 - Energy procurement
- 2.15. Further engagement work with stakeholders in Phase 2B enabled more robust and finer grain data to be gathered to underpin proposed options as part of Phase 2B. Engagement along with desk-top and drive-around surveys enabled identification of the levels of energy demand and suitability of PV and lighting installations. From this, four business parks were identified to showcase the opportunities identified. The four parks were selected because they held common characteristics with a number of other business parks that would enable us to simulate potential opportunities across sites in Blaenau Gwent.

Whole System Business Research Innovation for Decarbonisation (WBRID)

- 2.16. In late 2020, the Welsh Government made funding available for four Local Authorities to issue challenges to businesses with innovative products, processes and services to help communities and the public sector adapt to the challenge of net zero developments and integration of multi energy vector and sectors on a whole system basis.
- 2.17. The Whole System Business Research Innovation for Decarbonisation (WBRID) scheme, is a pilot using the tested principles of Small Business Research Initiative schemes, and is offering four challenges up to £100,000 for each challenge for phase one and up to a further £500,000 for each challenge for phase two, subject to budget provision.
- 2.18. Individual challenges will support work with up to four suppliers in phase one up to £25,000 per project. Those suppliers successful in phase one will be able to apply and if successful, progress to phase two in 2021-22.
- 2.19. The four Local Authorities invited to be challenge owners are Blaenau Gwent County Borough Council, Bridgend County Borough Council, Rhondda Cynon Taf County Borough Council and North Wales Economic Ambition Board. Each of the challenges are different but all have to consider potential for replication and scalability.

Overview of the Blaenau Gwent WBRID Competition

- 2.20. The invitation for BGCBC to become a challenge owner in the WBRID pilot has enabled the Business Platform Development to move into its third phase. Our competition shall seek to identify innovative solutions which will support energy supply, demand and storage for commercial end users (and in the future domestic end users) across Blaenau Gwent and to work towards creating zero energy parks as a Unique Selling Point (USP) for Blaenau Gwent.
- 2.21. We will work with suppliers to consider to create a local energy system that would meet industrial and commercial energy requirements and work alongside domestic energy user requirements to help alleviate fuel poverty.
- 2.22. Suppliers were selected using the pre-commercial procurement process. A contract notice was released in December and the deadline for supplier applications was 27th January 2021.
- 2.23. In total 11 submissions were received from suppliers wishing to work with Blaenau Gwent in Stage 1. These have been evaluated and four companies selected to proceed to Stage 1. Between February and April 2021 they worked with the Council and WG on the development of solutions that will support delivery of our challenge.
- 2.24. Results of Stage 1 are currently being considered in conjunction with WG, Smart Living Team with a view towards securing funding for Phase Two and selecting the preferred suppliers.

3. Options for Recommendation

- 3.1 The Regeneration Scrutiny Committee noted the progress within the report at its meeting on 30th June 2021.
- 3.2 This report provides an update on progress therefore there are no options for recommendation. The Executive Committee are asked to note progress of the Project.

4. Evidence of how does this topic supports the achievement of the Corporate Plan / Statutory Responsibilities / Blaenau Gwent Well-being Plan

- 4.1. Generation of renewable energy in Wales is supported and encouraged through legislation as follows:

Welsh Government Energy Policy Statement 'A Low Carbon Revolution' (2010) - Notes the potential involvement of WG in encouraging renewable energy industries in order to both reduce greenhouse gas emissions and promote sustainable economic growth.

Well-Being of Future Generations (Wales) Act 2015

- 4.2. Welsh Government 'Well-being of Future Generations (Wales) Act' 2015 – Large scale renewable energy is directly aligned with:

'A prosperous Wales' goal, striving towards creating an innovative, productive and low carbon society, which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.

- 4.3. There is also a direct link to the well-being goal for 'A globally responsible Wales' in tackling climate change. The Act encourages long term generational thinking by public bodies to improve the economic, social, environmental and cultural well-being of Wales.

Blaenau Gwent County Borough Council Corporate Plan Refresh 2020-2022

- 4.4. This topic supports the achievement of the Council's Corporate Plan Refresh 2020-2022 in the following areas:

- To create strong and environmentally smart communities we are taking a strategic approach to the management of our land in different ways;
- To be a carbon neutral Council by 2030;
- To develop a portfolio of potential energy opportunities to deliver economic, business and community benefits; and
- To develop a more commercial organisation to generate income and deliver cost reductions to make local services sustainable and raise money to re-invest in our priorities.

Blaenau Gwent Local Development Plan

- 4.5. In Blaenau Gwent generation of renewable energy development is supported within the LDP under LDP Strategic Policy 7 – Climate Change, which seeks to address the cause of climate change through ‘encouraging more of the County Borough’s electricity and heat requirements to be generated by renewable and low/zero carbon technologies’.
- 4.6. Development Management Policy 4 – Low and Zero Carbon Energy, also encourages major development proposals to incorporate schemes which generate energy from renewable sources.

Blaenau Gwent Energy Prospectus 2019

- 4.7. The project is one of a number identified within the Energy Prospectus endorsed by the Council’s Regeneration Scrutiny and Executive Committees.

Blaenau Gwent Decarbonisation Plan, 2020-2030

- 4.8. This project will also work towards addressing some of the key challenges identified within the Council’s decarbonisation plan 2020-2030. For the Council to become carbon neutral by 2030 we will have to exploit local opportunities for renewable generation and using energy differently.

5. Implications Against Each Option

Cost

- 5.1. There have been no direct financial implications as a result of our involvement in the Smart Living Demonstration Programme. All work completed to date has been fully funded and commissioned via the Smart Living Team at Welsh Government. Existing staff resources have been utilised to support the project to date and this will continue to be the case over the next 12 months.
- 5.2. There are no direct financial implications for Stage 1 or the potential Stage 2 of WBRID as Welsh Government have committed research and development funding as noted above to fund the whole of the project prior to commercial purchase of any model developed during the research and development phase of the project.
- 5.3. Funding of £100,000 has been awarded to the Council from Welsh Government for the purposes of running the WBRID Challenge. If we successfully complete Phase 1 and receive approval to proceed to Phase 2 funding of up to £500,000 would be made available by Welsh Government.

Risk including Mitigating Actions

- 5.4. Throughout the Project a risk register will be maintained, with any high risks being reported within Regeneration Services Business Plan. A table containing initial risks for the project is included below.

Theme	Description	Likelihood (1 to 3)	Impact (1 to 5)	Status	Mitigation
Engagement	Blaenau Gwent businesses do not take advantage of bulk material, energy purchase	2	2	Medium	Miller research tested different methods of engagement to increase stakeholders part of phase 2 studies face to face engagement identified as a successful form of engagement increased communications with businesses to keep them updated on the project and progress Standalone energy event to bring businesses together - possibly create a network of businesses
Technology	Solutions do not provide as much improvement in energy performance as anticipated	2	3	Medium	AECOM collected further data around energy usage and performance in Phase 2B Further energy information to be collected to validate and model against original assumptions Pilot project carried out to test performance and consider how modelling / forecasting should be adapted
Procurement	Lack of interest from companies wishing to participate in this research project	2	1	Low	Promote using same methods as SBRI (Innovate UK) Work with KTN to promote the project Communications campaign developed to promote the project with potential suppliers

Legal

- 5.5. Across the industrial and commercial portfolio, we see mixed ownership (public, private, owner occupier) which adds complexity to project delivery. In some cases, where tenancies are in place there will be different forms of tenancy agreement which adds further layers of complexity around carrying out works.

Personnel

- 5.6. The challenge will be project managed within Regeneration Services and will involve working with a number of teams including Economic Development, Estates, Legal and Community Services.

6. Supporting Evidence

Performance Information and Data

- 6.1. Once the project is established a performance framework will be developed and reported accordingly.

Expected outcome for the public

- 6.2. Some of the many benefits of low cost, low carbon financial, technical and digital investment for the public will include benefit from economic development for the region. Businesses that invest in and deliver low carbon infrastructure would further sustain businesses through local energy supply and offer the potential to own and manage local energy generation assets as part of a partnership arrangement with the Council.
- 6.3. Local businesses would also have the opportunity to shape and support the development of any commercial offering and to support the facilitation role of the Council in attracting further inward investment into the region. The project can also enhance the reputation of Blaenau Gwent and move towards low carbon sustainable business parks as a unique selling point.
- 6.4. There is also an opportunity in the future for the Council to generate lower cost, locally sourced renewable energy for the benefit of residents to tackle fuel poverty, improve local energy generation and resale of surplus energy generation on Blaenau Gwent business parks to the local community.

Involvement (consultation, engagement, participation)

- 6.5. Blaenau Gwent Council will continue to work with local business parks and carry out further engagement with building owners and tenants. The project will seek to bring together a range of partners to work collaboratively to assist Blaenau Gwent to meet its aspirations of Net Zero Business Parks.

Thinking for the Long term (forward planning)

- 6.6. The project will assist the Council with balancing its short term needs to identify areas for potential financial efficiency (reduced energy costs, digital efficiencies) both for its own business and property rental portfolio, alongside its long term support for businesses and community needs for a sustainable, low carbon future through local the development of energy generation.
- 6.7. Should this test also prove that the solution is replicable we would then look to consider scalability and replicability with some of our neighbouring Local Authority Partners. Blaenau Gwent has successfully led on joint Local Authority projects

and we could consider a similar approach towards deployment of the challenge solution.

Collaboration / partnership working

- 6.8. Business developments across Blaenau Gwent are in mixed ownership (Public, Private and Owner/Occupier) and this will require us to collaboratively work with each of the ownership groups if we are to fully achieve the aspiration of Net Zero Business Parks.

Integration(across service areas)

- 6.9. As outlined above work for this project will need to take place across multiple service areas. Service areas including Economic Development, Estates, Legal and Community Services will be included in discussions and invited to provide feedback on potential solutions.

7. Monitoring Arrangements

- 7.1. As a result of receiving grant funding from Welsh Government to carry out the challenge we are required to report back on progress and seek approval for future stages of funding. A Stage One completion report is required at the end of Stage One.
- 7.2. Weekly meetings are held with the Lead Officer from Smart Living at Welsh Government and the other four challenge owners. These meetings are used to provide updates on progress, discuss risks and/or issues and discuss common themes that support Welsh Government in evaluating the success of the WBRID programme.

Background Documents /Electronic Links

Appendix One – Business and Industrial Estates Across Blaenau Gwent

Executive Committee Report, Energy Prospectus, 18th December 2019
Executive Committee Report, Energy Prospectus Annual Review, 13th January 2021

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