
Report to Communities, Highways and Environment Scrutiny Committee

23 January 2023

2030 Energy Strategy – Progress Update

Report by Assistant Director Environment and Public Protection

Summary

A new Energy Strategy was developed in 2021 which set out a focus on 5 key priorities and also set out 5 enabling actions. The report provides a review of the activities completed to date and an indication of the next steps required to implement the Energy Strategy. Particular attention is drawn to the sequencing of delivery of various priorities. Specifically, the immediate focus is given to the council's work on reducing emissions from its corporate built estate and activities and priority projects already in progress.

Focus for Scrutiny

1. Delivery of the aims and actions outlined in the Energy Strategy and particularly their alignment with and contribution to County Council objectives around decarbonisation, financial resilience and green skills.
2. Whether any changes in the societal/economic (cost of energy) context since adoption of the Energy Strategy might merit revisions to the Strategy or the proposed sequencing of action.

Update

1 Background and context

- 1.1 The County Council agreed an [Energy Strategy](#) in 2021 which set out a vision that, by 2030, West Sussex County Council will have actively supported a resilient and equitable local energy transition through decarbonisation of energy sources and the delivery of projects which have enabled economic development and contributed to the needs of our communities
- 1.2 The strategy was based on the National Grid's 'Leading the Way' scenario from their Future Energy Scenarios. The Strategy put forward five priority areas for action including:
 - Development of Sustainable Energy projects
 - Reduction of County Council emissions

- Development of social value from energy
- Achievement of local energy resilience
- Increase in sustainable income generation, savings, and cost avoidance

1.3 The strategy also identified 5 areas where additional improvements would enable the County Council to achieve these priorities:

- Collaboration
- Data Management
- Innovation
- Green Energy Skills
- A Future Energy Transition Hub

1.4 The Communities, Highways and Environment Scrutiny Committee scrutinised the draft strategy in November 2021. The Committee:

- Agreed that the rationale for the chosen scenario is justified and therefore the best fit for the County.
- Agreed that the County Council's climate change priorities have evolved to a degree since its 2016 strategy in response to the ever-developing international and national landscape.
- Noted future concern of potential funding cuts to local authorities in recognition of the challenges faced by central government in balancing varying priorities.
- Agreed that the strategy is significantly ambitious and that its deliverability will need to be assessed following the provision of further detail about its implementation and at the conclusion of the consultation period in early 2022.

1.5 This report provides an update on the implementation of the strategy.

2 Implementation of 2030 Energy Strategy priorities

2.1 Development of Sustainable Energy projects

2.1.1 **Halewick Lane Energy Park:** The £24m project to develop a battery storage installation at Halewick Lane in Sompting has been taken forward with two key contracts let and managed; the first to lay the necessary ducting and cabling connecting the site to the local electricity network and the second to develop the battery storage installation itself.

2.1.2 The cabling contract was let to [Green Frog Connect](#) and this aspect is on schedule with minimal complaints from local residents affected by the temporary road closures. The second contract has been let to [Kier Construction](#) who have engaged a specialist supply chain and have begun the detailed site design and planning revisions. Work is ongoing with them to

secure the pipeline 'slot' from a manufacturer to ensure that the programme is not delayed as a result of industry wide supply chain constraints.

- 2.1.3 **Solar PhotoVoltaic (PV) and Battery Storage:** A £7.7m programme has been developed to roll out solar PV and battery storage across more of the County Council and school/academy estate. Building on the lessons learned from the earlier 'Solar Power 4 Schools' programme, this programme will offer battery storage in addition to solar PV so that the bill payers will benefit from more of the on-site renewable energy.
- 2.1.4 A Programme Board has been established and a contract with the County Council's Multi-Disciplinary Consultancy (Faithful & Gould) agreed to provide develop the tender pack and to provide contract management for the design and construction stages. Two additional roles (a Technical Engineer and a Project Officer) have been identified and funded to support delivery of the programme.
- 2.1.5 The procurement allows for a maximum contract value of £22m which, subject to the successful delivery of the initial £7.7m of projects, will be used to roll out solar PV and battery storage across the remainder of the County Council's sites as well as those of schools and academies.
- 2.1.6 As explained in section 2.4 below, a major challenge for the County Council is securing access to the local grid capacity which is strictly regulated by the District Network Operators. Some land holdings – such as former landfill sites have great potential but are simply too far from potential connection points to be economically connected.
- 2.1.7 Two projects in particular are seeking to work around this constraint:
- (a) **Baystone Farm Solar Farm:** A new solar farm is being proposed for the closed landfill known as Baystone Farm near Broadbridge Heath. An initial feasibility study has indicated a viable business case for a 1.5MW solar farm. The Energy Team aims to mitigate the high risk and long timescales of connecting to the national grid by using the solar farm to serve the power needs of a third party within an economic connection distance with a significant long term need for electricity.
 - (b) **Service Support:** The Energy Team are exploring the use of rooftop solar PV at the county council's Waste facilities. An initial feasibility assessment of the Mechanical Biological Treatment plant at Warnham indicates that over 1MW of solar PV could subject to further technical surveys be installed there. The great advantage of using our existing waste facilities – in addition to the roof structure for mounting being in place - is that a grid connection with surplus capacity to allow export of solar energy is already installed.

2.2 **Creation of emissions reductions for the County Council**

- 2.2.1 **Funding for emissions reductions:** A series of successful bids have been awarded funding from the Government's Low Carbon Skills Fund (LCSF) Scheme. These are being used to deliver 90 Heat Decarbonisation Plans using the MDC and specialist consultant, [Hamson Barron Smith](#). The

delivered Heat Decarbonisation Plans outline the scale of decarbonisation achievable in the surveyed buildings and the likely cost of delivering them.

- 2.2.2 **LED lighting:** A series of LED lighting projects have been piloted across several schools which have demonstrated the potential cost-effectiveness of the County Council funding the up-front costs of this energy efficiency measure and having this investment paid back as the school realises savings on their utilities budget. A scheme to replicate these projects and produce emissions savings from lighting improvements is in development and an indicative budget of £4m has been allocated to this.
- 2.2.3 **Service support:** Services are being supported to identify how to best work with the electricity network to achieve emissions reductions. For example, Highways Services' work to decarbonise their fleet of vehicles is supported by engagement with the Distribution Network Operator (DNO) so that sufficient electrical capacity can be secured to accelerate the adoption of Electric Vehicles. Additional support has been provided to help Highways Services further decarbonise their activities through a targeted funding bid to the 'ADEPT Live Labs 2: Decarbonising Local Roads in the UK' scheme.
- 2.2.4 **Worthing Heat Network:** The County Council has worked with Worthing Borough Council to establish the basis for the County Council to connect one of its main buildings to the heat network which is planned for build out in 2025. The County Council has established the potential for reductions in carbon emissions from Worthing Community Hub as well as the cost implications of doing so. Discussions will continue with the Borough Council's preferred contractor following award of the concessionaire contract.

2.3 Development of social value from energy

- 2.3.1 **Supporting County Council finances:** The additional revenue from the sale of renewable electricity from the County Council's solar farms has been used to alleviate increased financial pressure in the County Council's utilities budget, thereby insulating the County Council from energy market volatility.
- 2.3.2 **Group buying:** The County Council has used the Solar Together Sussex scheme as provided by iChoosr to deliver over 5MW of additional rooftop solar projects (in addition to new battery storage) across West Sussex. An additional round of Solar Together Sussex is planned for Summer 2023 and a specific emphasis is planned to support Small and Medium Sized Enterprises (SMEs) to benefit from the scheme. The partnering Sussex councils are also exploring how to achieve more value from the 'group purchasing' model in coming years, be that through additional services or a financing solution.
- 2.3.3 **Financial support for action on Fuel Poverty:** The long-standing relationship with Citizens' Advice continues to deliver Emergency Fuel Vouchers to residents in West Sussex facing a financial crisis.
- 2.3.4 **Local Ownership of energy transition:** The County Council has secured a contractor to support the development of a Local Energy Community (LEC) in Manor Royal Business Improvement District (BID). Brighton Energy Cooperative will provide advice and guidance to the nascent LEC through funding the County Council has received as part of the LECSea project.

2.3.5 Initial meetings have been held with Community Energy South to explore the potential for West Sussex to support the development of Community Energy Groups in the county.

2.4 **Achievement of local energy resilience**

2.4.1 **Review of grid constraints across the county:** A wide ranging review of the grid constraints was completed with independent network specialists [Roadnight Taylor](#) in 2021. As a result of this work, the County Council's pipeline of energy projects has been reviewed and amended to reflect the potential difficulty, cost and extended timescales associated with connection to the electricity network. The outputs of this review are feeding into a revised Service Asset Management Plan.

2.4.2 **Westhampnett Solar Farm optimisation:** Despite the high financial value gained from the co-located solar farm and battery storage systems at Westhampnett, the grid poses constraints upon their operation which means that, occasionally, output from the solar farm is turned down or the battery is taken out of operation for short periods. A project is currently being developed to acquire additional grid capacity for the Westhampnett site that will allow both assets to work continuously.

2.5 **Increase in sustainable income generation, savings, and cost avoidance**

2.5.1 **Ground-mounted solar PV assets:** The County Council's solar farms have, to date, generated £2.6m of income above that which was expected of them in their original business cases. This has been realised through the procurement of new Power Purchase Agreements (PPAs) that support both Tangmere Solar Farm and Westhampnett Solar Farm.

2.5.2 **Rooftop solar PV assets:** No such market is currently operational for electricity generated from rooftop solar PV systems and exported to the electricity network. As a result, the County Council receives income from the electricity supplier offering the most competitive Smart Export Guarantee (SEG) – currently [Good Energy](#).

2.5.3 A small number of companies are beginning to offer rooftop-specific Power Purchase Agreements and the County Council is exploring the potential for additional value to be generated from selling surplus electricity from rooftop solar PV systems in this way.

2.5.4 **Energy Reinvestment Scheme:** Following the announcement from Government of its intention to close the 'Invest to Save' fund in 2025, the Energy Team has proposed an independent 'Energy Reinvestment Scheme' and allocated £4m to support the delivery of LED lighting projects (noted above) from the fund. The scheme would pay for the upfront capital costs of energy efficiency projects and be topped up from the savings achieved by bill payers. Unlike the County Council's solar PV schemes, the equipment will be owned and operated by the bill payer and the fund will act as a targeted loan.

- 2.5.5 The governance arrangements for the fund are currently being developed with input from across Finance, Property and Assets and Environment & Public Protection.

3 Implementation of 2030 Energy Strategy enablers

3.1 Collaboration

- 3.1.1 **Distribution Network Operators (DNOs):** The County Council has developed a collaborative approach with both DNOs serving West Sussex (UK Power Networks and SSE Power Networks) and meet regularly with both parties to identify areas for closer collaboration and joint working.
- 3.1.2 **Local Energy Communities:** Drawing from the experiences of the LECSea funded project to create a Local Energy Community at Manor Royal BID the Energy Team is exploring the potential for other Business Parks and Parish Councils to form Local Energy Communities. The Energy Team is supporting East Preston Parish Council to understand their options to accelerate the uptake of renewable energy in pursuit of their Net Zero goals.

3.2 Data Management

- 3.2.1 The County Council is reviewing the role that the existing corporate energy management database (TEAM Sigma) can play in managing the data associated with emissions and carbon offsets in the period up to 2030.

3.3 Innovation

- 3.3.1 **Local Energy Communities:** In addition to the sharing of LEC information with East Preston Parish Council, the County Council is supporting East Preston Parish Council to undertake a small piece of work with the Design Council (funded through their DESIGN, *DIFFERENTLY* Programme) which will identify the best way for Parish Councils to engage with their energy transition.
- 3.3.2 **Hydrogen:** The Energy Team represents the County Council on the pan-Sussex [Hydrogen Sussex](#) group and monitors the planned development of hydrogen infrastructure across the county.

3.4 Green Energy Skills

- 3.4.1 **Primary/Secondary Education:** The County Council is evaluating a range of schemes that support students to engage with the energy element of climate change. By partnering with a dedicated educational provider, the County Council expects that the data generated by the solar panels on schools will be used to help develop and enhance Science, Technology, Engineering and Maths (STEM) offerings in schools.
- 3.4.2 **Further Education:** The County Council has had initial meetings with representatives from Chichester College Group outlining the potential for a collaborative approach toward green energy skills. The County Council has begun supporting Chichester College Group with site visits to Westhampnett Solar Farm where the role of (and engineering supporting) renewable energy and battery storage on the electricity network is discussed.

3.5 A Future Energy Transition Hub

- 3.5.1 It is planned that the Future Energy Transition Hub will be developed in 2024/25 to formalise the collaborative relationships that the County Council has established, particularly with the county's DNOs, District and Borough Councils, Universities, Further Education providers and Community Energy South.

4 Next Steps

- 4.1 Though all 2030 Energy Strategy priorities will continue to be taken forward, the County Council's immediate focus will be on creating the required emissions reduction from the County Council's built-estate and corporate activities. This will be brought forward on the basis of growing capacity and capability across the County Council to tackle emissions, but also as this is an area that is likely to attract Government funding in the short term. Without focus on this specific area of activity, the County Council is likely to lose out on Government grants/subsidies for emissions reductions, which would make the task of decarbonising more expensive than otherwise.
- 4.2 In addition, the County Council will shortly focus on establishing the basis for creating or buying carbon offsets. These are medium-long term investments and should be made on the basis of excellent data quality and a clear understanding of the potential emissions from the County Council's built-estate and activities in 2030.
- 4.3 The further development of sustainable energy projects will continue. As the County Council's assets have been shown to be constrained by the difficulty, cost and timescales associated with connecting to the electricity network, the council will explore working more with third parties where feasible.
- 4.4 The County Council has made a block Capital allocation to develop this area, of which £23.7m remains to be assigned to specific business cases, which will be allocated in the years up to 2024/25.

5 Risk implications and mitigations

Risk	Mitigating Action (in place or planned)
Partners' capacity to support collaboration and shared projects	An assessment of partner's capacity to support collaboration will be undertaken before the precise nature of the collaboration is established.
Availability of further finance following current allocation	Savings attributable to projects delivered under the strategy will be highlighted to demonstrate value to the council. Any bids for further funding will also be based on a positive financial business case.
Availability of viable projects or sites	Where the availability of council-owned land is likely to diminish over time, partnerships with

Risk	Mitigating Action (in place or planned)
	third parties will be explored as a route to continue development work
Availability of Grid Capacity to enable future connections	Review of the grid constraints completed with network specialists Roadnight Taylor. Immediate emphasis on sites with capacity eg Warnham MBT, Westhampnett and Halewick Lane.
Availability of technologies and supply chain to deliver	The County Council will take a broad approach toward market engagement so that it has a clear understanding of the supply chain constraints before individual projects are commissioned

Steve Read

Assistant Director Environment and Public Protection

Contact Officer: Dr Daire Casey, Energy Services Manager
Tel: 0330 2223005, daire.casey@westsussex.gov.uk