EAST STAFFORDSHIRE BOROUGH COUNCIL

REPORT COVER SHEET

Title of Report:	Produce Options to Create a Community Wealth-Building Energy Model for ESBC	To be marked with an 'X' by Democratic Services after report has been presented
Meeting of:	Corporate Management Team – 21 February 2024	X
	Pre-Cabinet – 29 February 2024	X
	Leader's / Leader of the Opposition's Advisory Group / Independent Alliance Advisory Group - 7th and 13th March 2024	X
	Cabinet - 25th March 2024	
	Audit Committee [DATE] / Scrutiny Regeneration, Development and Market Hall Committee [DATE] / Scrutiny Health and Well Being Committee [DATE] / Scrutiny Climate Change and Environment Committee / Scrutiny Value for Money Council Committee [DATE]	

Is this an Executive Decision:	YES	**Is this a Key Decision:**	YES
Is this in the Forward Plan:	YES	**Is the Report Confidential:** **If so, please state relevant paragraph from Schedule 12A LGA 1972:**	NO

Essential Signatories:

ALL REPORTS MUST BE IN THE NAME OF A HEAD OF SERVICE

Monitoring Officer: **John Teasdale**

Date ……. Signature ……..

Chief Finance Officer: **Lloyd Haynes**

Date ……. Signature ……..

OPEN AGENDA

EAST STAFFORDSHIRE BOROUGH COUNCIL

Report to Cabinet

Date: 25th March 2024

REPORT TITLE:	**Options for ESBC to develop community wealth-building energy projects**
PORTFOLIO:	**Cllr Fletcher – Environment and Climate Change**
HEAD OF SERVICE:	**John Teasdale**
CONTACT OFFICER:	**Sharon Walker Ext. No. x1134**
WARD(S) AFFECTED:	**All Wards**

1. Purpose of the Report

1.1. The purpose of this report is to present a list of community wealth-building energy projects for the council to consider.

2. Executive Summary

2.1. In alignment with corporate targets around growing community wealth and enabling a greener economy, this report explores pathways for developing localised, sustainable energy systems for East Staffordshire.

2.2. Opportunities exist to leverage the council's assets, regeneration sites and cross-sector relationships in deploying solutions ranging from tried and tested solar photovoltaics (PV) to exploring new technologies such as virtual power plants, and investigating the viability of introducing a district heat network.

2.3. As well as opportunities, the complexity of the energy industry means it is not without risks. Cautionary cases such as Nottingham City Council's 'Robin Hood Energy' and Thurrock Council's 'Toucan Energy Holdings', as detailed later in the report, show that careful project selection and risk mitigation are necessary.

2.4. With this in mind, building our capabilities gradually through pilots or partnerships enables methodical growth and can greatly reduce risk.

2.5. Partnering with specialised entities such as Staffordshire Community Energy, (SCE) to launch initial solar schemes provides the council a high probability path

to near-term measurable wins setting the stage before more ambitious commitment in spaces unfamiliar to the council.

2.6. Further partnerships with academia, for example, Keele University, and private organisations leading on new technologies, such as AMP's Battery Box, can help bring supplementary financing, expertise and participatory delivery competence.

3. Background

3.1. The UK government has committed to reaching Net Zero emissions by 2050. It has set targets for decarbonising all sectors, including the ambition that by 2030, 95% of British electricity will be produced by low-carbon means, and by 2035 the Government aims to have a fully decarbonised electricity system.

3.2. ESBC plays a key role in this effort and in 2020 declared a climate emergency, setting a target 'to make the Council's activities carbon-neutral by 2040 and to aspire to make the Borough carbon neutral by 2050'.

3.3. The UK government has signalled a growing policy emphasis on decentralised and community-based energy systems. Upcoming heat network zoning mandates will require the identification of cluster areas suitable for district solutions. A reform of the energy market aims to enable the optimisation of small-scale assets through platforms like virtual power plants.

3.4. East Staffordshire emitted 655 kilotonnes of carbon dioxide equivalent (kt CO_2e) in 2021, representing a 39% reduction since 2005, which is below the mean estimate averages of local authority districts in the West Midlands. However, over 60% of emissions still stem from energy used to power buildings and fuel transport.

3.5. East Staffordshire electricity and gas consumption levels also exceed regional comparators. 2021 saw 642 Gigawatt hours (GWh) of electricity and 1120 GWh of gas usage district-wide.

3.6. Locally, renewable energy sources such as solar PV, hydro, and wind installations combined generated 50,094 MWh during 2022 – approximately 8% of the total electricity consumed in the borough.

3.7. High energy consumption paired with the low deployment of clean energy contributes to issues like the estimated 18%, or 8300, households facing fuel poverty. Tackling areas like efficiency, affordability and sustainability are therefore key.

3.8. The council accounts for an estimated 2119 tonnes of CO_2e, approximately 4% of emissions in the area.

3.9. Efforts to reduce this include auditing buildings and developing heat decarbonisation plans, procuring green energy through REGO contracts, electrifying vehicles, and partnering with our leisure centres on sustainability. Meeting ambitious 2040 carbon-neutrality commitments will require continued proactivity.

3.10. A full analysis of this information with a breakdown by sector (industry, commercial and domestic) and comparison metrics can be found in Appendix 1: The Current Energy Picture in East Staffs.

4. Contribution to Corporate Priorities

4.1. **Improving Local Democracy:** This report recommends inclusive participation mechanisms such as cooperatives and joint partnerships, so that the community is empowered throughout the energy planning and delivery process.

4.2. **Developing a Green New Deal for East Staffordshire:** Mapping generation and storage opportunities advances sustainability aims while benefiting residents.

4.3. **Standing up for our communities:** The projects deliver benefits for local communities by tackling fuel poverty, developing skills/jobs, and boosting energy security and affordability.

5. Community wealth-building energy projects

5.1. Community wealth building is an approach that aims to redirect wealth back into local economies. Developing local energy projects using small-scale renewable generation creates additional economic activity and skilled jobs, for example in the construction, maintenance, and asset management sectors.

5.2. Any energy project that provides a long-term revenue stream will help alleviate financial pressure and enable more effective delivery of public services. It also supports decarbonisation by transitioning away from fossil fuels toward low-carbon and renewable energy systems.

5.3. The efficiency gains can be used to fund and deliver additional interventions into vulnerable areas that need additional support to deal with inequalities, such as additional support for residents that are struggling with the cost of living.

6. Existing Energy Projects

ESBC Energy Projects

6.1. ESBC has several key energy and sustainability initiatives that are being progressed. Among them are energy audits and decarbonisation plans, which will roadmap a costed route to net zero for four corporate council buildings.

6.2. A project to install a mini pop-up solar car park and EV charging hub is being developed (as illustrated in Figure 1 below) for the Maltings car park in Uttoxeter and the forthcoming budget has been approved to support this. This will help boost EV infrastructure in the borough and accelerate the transition to electric vehicles.

Figure 1: Papilio3 Mini Solar Carpark & EV Charging Unit

6.3. Furthermore, ESBC is working to support local businesses in reducing emissions through green solutions assistance. Alleviation of fuel poverty continues through the delivery of energy efficiency upgrades to vulnerable households and electric vehicle infrastructure development is being progressed.

6.4. Importantly, a potential regeneration project: Project D (High St, Burton) opens up an opportunity to explore a decentralised low carbon district heating network.

6.5. A more detailed list of current ESBC projects can be found in Appendix 2: Current Energy Projects.

Successful Local Energy Projects

6.6. There are a number of existing large-scale energy projects using solar, wind and smart energy systems to manage energy distribution which include:

6.7. **University Hospitals Roof-mounted Solar Panel Installation:** Non-profit community energy society, Staffordshire Community Energy (SCE) works in partnership with the University Hospitals of North Midlands NHS Trust on an innovative project to reduce the hospital's carbon emissions and energy costs, whilst helping patients suffering from respiratory problems and alleviating stress on the NHS.

6.8. In 2016 they installed 1,000 solar panels on eight of the Trust's buildings at Royal Stoke and Stafford County hospitals, providing low-cost solar power to the hospital with annual surpluses invested back into local fuel poverty charity, Beat the Cold, to support local residents and reduce the chances that vulnerable residents are admitted to hospital.

6.9. It is worth noting that the government 'Feed in Tariff' (FiT) was still in place when this project was implemented, albeit at a much lower rate than when first introduced, however, the SCE model is still perfectly viable in the right circumstances given the reduction in solar install costs and increases in energy costs since 2016, and they are working to bring forward a further phase of solar installations across other hospital sites.

6.10. Further reading on this project can be found here: Solar Panel Installation - Royal Stoke Hospital - Staffordshire Community Energy

6.11. **Zero Carbon Rugeley:** The Innovate UK-funded project created a blueprint for a sustainable and low-carbon 'smart local energy system' (SLES) in Rugeley, Staffordshire at the site of a former coal power station.

6.12. It took a community-focused approach and aligned energy systems to local priorities and responded to the town's rich energy heritage, rather than just corporate interests to increase adoption.

6.13. Partners worked together to produce a detailed design for the community to use to move forward and build a SLES that directly addresses the challenges unique to the locality and the needs of its local community..

6.14. Further reading on this project can be found here: Project fact sheet: Zero Carbon Rugeley

6.15. **Keele University Smart Energy Network Demonstrator (SEND):** The project utilises the Keele campus as a living laboratory for smart energy generation, distribution, storage and balancing.

6.16. It integrates a renewable park meeting 50% of the university's demand via 12,500 solar panels, wind turbines and a battery system. SEND aims to cut waste, trial new models and reduce fossil fuel reliance. It shares learning with local SMEs on renewables R&D while offering start-up consultancy on entering the sector sustainably.

6.17. The initiative won a Green Energy Award for its pioneering work enabling clean energy and exemplifies Keele's leadership in sustainability research.

6.18. Further reading on this project can be found here: Institute for Sustainable Futures - Keele University

Unsuccessful Energy Projects

6.19. **Robin Hood Energy:** Established in 2015, Nottingham City Council's Robin Hood Energy aimed to help struggling households by offering cheaper energy without a profit motive, but as the company grew it racked up over £34 million in losses by 2019.

6.20. Attempting to compete in the complex retail energy market proved highly challenging for a local authority with limited commercial expertise. Fluctuating industry economics also shifted.

6.21. A lack of risk appreciation and overconfidence in backing rapid expansion compounded matters instead of taking an iterative approach. Despite growth to 125,000 customers, the mounting financial exposure ultimately proved unviable.

6.22. In 2020 declining prospects forced the company to sell its customer base to incumbent British Gas and shut down, resulting in redundancy for 230 staff after an unsuccessful five years.

6.23. Robin Hood Energy demonstrates how laudable public goals cannot outweigh commercial discipline. Councils must rigorously stress test assumptions and build capabilities before market entry rather than relying on taxpayer resources to stem losses.

6.24. Further reading on this project can be found here: Robin Hood Energy governance report – My Nottingham News

6.25. **Thurrock Solar Investment:** In 2022, Thurrock Council invested over £1 billion into a portfolio of 53 large-scale commercial solar farms, aiming to benefit from renewable energy revenues. However unrealistic projections and mounting losses from underperforming assets forced it to declare effective bankruptcy.

6.26. Rushed and inadequately validated business plans proved wildly optimistic as multiple solar farms confronted unexpected grid constraints and weather impacts limiting already improbable output forecasts. Mounting negative cash flows from the fast-built portfolio quickly cratered finances.

6.27. After belated restructuring attempts failed to stem ballooning losses from the solar investments, Thurrock ultimately sold the assets to an infrastructure fund for around £700 million - crystallizing a £700 million write-down from taxpayers' original capital outlay plus interest accruals.

6.28. This case study provides a sobering illustration of the existential budget risks councils face overreaching into commercial spaces lacking core competencies and operating experience.

6.29. Further reading on this project can be found here: https://www.bbc.com/news/uk-england-essex-68099217

6.30. **Tutbury Mill Hydro Power Project:** In 2008, a local resident had the vision to build a mini-hydro power scheme at Mill Fleam weir in Tutbury, to generate electricity and fund improvements to the area. An 80kW twin Archimedean screw generator was proposed for the River Dove weir, forecasted to generate £60,000 annually selling power to the grid.

6.31. Delays resulted in missing a 2014 deadline to get the optimal feed-in tariff rate, eroding project economics. The loss of key team members and community support further hampered momentum.

6.32. Despite attempts to find alternative funding, the project was abandoned in 2016 as it was no longer financially viable.

6.33. The Tutbury hydro project demonstrates the potential of community renewable energy schemes. However, it also highlights risks around changes to incentive schemes, personnel changes, and timeline delays that can undermine project success.

6.34. Ambitious community energy projects require solid economics, sustained team commitment, close stakeholder coordination, and adaptive plans to overcome potential barriers.

7. Types of Technology

7.1. The following section briefly explores some of the most common types of renewable technology currently available and how they could be utilised locally (For a more in-depth analysis please refer to Appendix 4: Types of Renewable Technology - expanded text)

7.2. **Solar PV:** Solar panels generate emissions-free electricity from sunlight. Modular and relatively easy to install on new/existing buildings or open spaces, however, drawbacks include a variable output based on weather and seasons, and may receive negative feedback from the public in terms of appearance.

7.3. Solar PV has high potential across available council building roof space and car parks, working with a delivery partner such as Staffordshire Community Energy which has technical expertise and a proven business model, could result in an achievable quick win for the Council, with clear community returns. Limited land impacts and a tried and tested approach make Solar PV a prime opportunity.

7.4. **Wind:** An established technology harnessing the wind to provide bulk power affordably but intermittently. There are constraints around planning, heights and space limit deployment, and again may meet resistance from the public in terms of appearance.

7.5. Previous county-wide renewable-low carbon energy study identified potential for sixteen turbines across seven medium-sized sites, although this is likely to now be outdated. An updated feasibility assessment would be needed, as constraints may have changed.

7.6. **Heat Networks:** A system of shared heating/hot water from a central plant across connected buildings. Enables renewable integration and affordable access but requires high upfront investment and heat density can be a big drawback.

7.7. District heating is beneficial for new developments due to the lower cost of civil works on new sites, and in areas where there is a high energy demand.

7.8. East Staffordshire's rural nature means the potential for district heat networks is limited to pockets of the more urban Burton town area. The Project D – High Street redevelopment offers an ideal anchor site for a heat network, especially with the Meadowside Leisure Centre nearby, but would be subject to further investigation due to high upfront costs and technical complexity.

7.9. **Hydro:** Rivers and tidal flows spin turbines for reliable renewable power but sites are geographically limited and weather dependent. Constraints include complex permitting and site requirements, also costs can be prohibitive.

7.10. A 2010 county-wide renewable-low carbon energy study found 11 potential hydro sites, albeit requiring deeper location/ownership analysis.

7.11. Local Hydro project Congleton Hydro Technology provides a good example of success.

7.12. **Energy Storage:** Energy storage technologies or battery energy storage systems (BESS), are designed to capture clean energy generated at one time and save it for use at a later time. It enables more renewables but still maturing with efficiency losses.

7.13. Turnkey Battery storage solutions could readily be installed across council land parcels but fire safety preparations are key.

7.14. **Virtual Power Plants (VPPs):** A virtual power plant (VPP) is a cloud-based network of distributed energy resources (DER) that can be controlled as a single entity. A VPP can include smaller energy-generating and storage devices, like solar panels, battery systems, and electric vehicles. A solution that can optimise assets and offset consumption but involves technical integration challenges.

7.15. SCC is currently exploring county-wide VPP integration for demand balancing - which presents partnership potential.

8. Options: Community Energy Projects

8.1. There are four options identified for the council to consider taking forward to capitalise on the opportunities available. They are ordered based on scale and ease of implementation in terms of tried and tested models and technology, starting with near-term measurable wins and then progressing to more ambitious commitments.

Option One: Solar Community Energy Project

8.2. Partnering with an established, local and non-profit community energy society such as Staffordshire Community Energy (SCE) would allow the Council to progress with 'free to fit' solar across its assets under a proven community fund model.

8.3. SCE finance, develop roof licence agreements, design and install optimally sized solar PV systems across suitable sites identified across our estate, managing grid connections and commissioning. This gives the council access to low-cost renewable electricity, with any excess energy/revenue generated fed back into supporting local community initiatives, for example targeting food and fuel poverty - aligning directly with wealth-building goals.

8.4. SCE raise initial funds through a combination of community share issues and a loan by an ethical provider. Further funds are raised by selling electricity to the grid that has not been used by our buildings, these funds are then used to pay for the society's overheads, as well as a return to investors on their money. Any further surplus is directed into a community fund for local benefit.

8.5. Since the end of the government 'Feed in Tariff' (FiT) in 2019, the SCE model has remained viable given the reduction in solar install costs and increases in energy costs.

8.6. In summary, SCE offer a proven model for community-centred, jointly developed renewable energy systems that can be adapted to help ESBC achieve its goal of community wealth-building through an energy scheme and significantly contribute towards our carbon-neutral targets.

8.7. More information about Staffordshire Community Energy is presented in Appendix 5: Staffordshire Community Energy.

8.8. If there is support to take forward a community solar energy project then alternatives for implementing that scheme will also be considered as part of a full options appraisal, including the potential use of Salix Loans or Community Bonds (further details of which are contained in Appendix 6 – Community Energy Alternative Finance Options).

Option Two: Energy Efficiency & Conservation First

8.9. It is generally much more cost-effective to reduce energy demand (through energy efficiency) than to generate the equivalent amount of energy. Energy not used is the most affordable and sustainable.

8.10. Therefore, it is prudent to ensure that cost-effective energy efficiency and retrofit opportunities are fully explored and implemented.

8.11. The council is already progressing with building audits and pursuing housing efficiency schemes that benefit those most vulnerable. However, substantial space remains to expand efforts through:

- Targeted finance tools facilitating residential and business retrofits at scale.
- Grouped neighbourhood delivery approaches creating installer economies.
- Tightening standards over time via planning mechanisms and licensing policies.
- Deepening partnerships with public agencies and major employers to elevate efficiency in unison.
- Boosting community awareness and celebrating positive behaviours.

8.12. An ambitious efficiency effort will drive wider efficiency upgrades, reduce demand and lower costs.

Option Three: Battery Storage

8.13. This is a relatively new and emerging technology. Battery storage offers capabilities to enhance local renewable power, provide grid services, and enable electric vehicle infrastructure.

8.14. Currently, there are a number of providers, for example, AMP Energy that are offering 'turnkey' solutions such as land lease agreements to place shipping container-sized battery storage units on council-owned land.

8.15. With an estimated capacity for up to 13 battery boxes across East Staffordshire, battery storage could deliver savings of an estimated 80 tonnes of CO_2 per unit each year, whilst generating an income from the land which could support other council energy projects.

8.16. By leveraging the battery storage provider's specialised expertise and shouldering project risks, the battery box model offers the council the potential to support decarbonisation and grid modernisation while benefiting from lease incomes with minimal capital outlay or execution overheads.

8.17. More information about AMP and Battery Box is presented in Appendix 7: AMP Battery Box Briefing Paper

Option Four: Virtual Power Plant

8.18. Aligning with its goals around community wealth and public ownership of energy, ESBC has an opportunity to collaborate with Staffordshire County Council as they analyse and map county-wide virtual power plant (VPP) options.

8.19. Benefits of a VPP include optimised renewable energy utilisation, potential revenue generation and support further renewable growth at neighbourhood levels.

8.20. East Staffordshire would benefit from being embedded within these early scoping studies to evaluate viability for the borough specifically, while simultaneously advocating with county counterparts to serve as a potential pilot community for initial small-scale VPP demonstration projects.

8.21. Successful trials proving the automated coordination of local renewables and devices could then inform larger scaling at a Staffordshire level to progress self-sufficient community electricity supply, consumption shifting and enhanced reliability.

9. Council's assets and estate

9.1. There are several potential Solar PV sites including corporate buildings like the Town Hall, Brewhouse Arts Centre, Burton Market Hall, and Stapenhill Cemetery, all of which are included in energy audits and decarbonisation plans currently being produced of the Council. Operational sites such as the Millers Lane Depot have potential, and again there are plans in place to draw up an electrification feasibility study. (Appendix 3: Potential Solar Sites shows a quick analysis of these sites.)

9.2. Leisure partners Everyone Active are also assessing the viability of solar panels at our three leisure centres and have recently been successful in securing nearly £500K in funding from Sport England to install solar panels on the Meadowside site.

9.3. The Council also has several commercial and industrial units, community buildings, open spaces and car parks that could provide suitable space for solar PV.

9.4. Detailed earlier in this report, the Council recently approved plans to put forward a fully costed business case to introduce a pop-up electric vehicle charging hub powered by solar on-site in the Maltings car park, Uttoxeter.

9.5. As well as EV charging, there is potential for larger-scale solar projects through utilising council car parks to become ‘solar car parks’. The installation of huge carports or canopies over the top of car parking spaces (as shown in Figure 2 below) enables electricity production and has additional benefits in that they protect cars from rain and snow, or hot sun in the summer (Great for climate change adaptation). Energy generated can then power a variety of applications such as neighbouring buildings, open spaces, Electric Vehicle Charge Points, and Battery Energy Storage Systems (BESS).

Figure 2: Solar Car Park at Bentley Stoke on Trent

9.6. **Regeneration sites:** In addition to the Council's estate, our current and future regeneration sites have the potential to generate and distribute energy, for example, the Project D - High Street site in Burton as mentioned earlier in this report, could host a district heat network, subject to further investigations, feasibility and cost constraints.

9.7. **Partner sites:** Other possible sites could be identified by widening the scope outside of our estate and assets by working in partnership with local organisations, for example, social housing provider Trent & Dove, the local NHS Hospital Trust, Staffordshire County Council, parish councils, business, land owners, farmers, enterprise and academia such as Burton and Derby College and schools, etc. This would significantly increase the scale of any project and maximise the capacity of potential energy generation or benefit from the purchase of more local energy.

10. Conclusion and view from the officers

10.1. ESBC has set targets for carbon neutrality and building community wealth through a community energy project. Whilst challenging, progress is being made from advancing building efficiency to exploring renewables, EV charging infrastructure, partnerships, and more.

10.2. This report demonstrates that many opportunities exist such as deploying solar, optimising efforts towards greater energy efficiency, hosting battery storage, utilising grid services like VPPs, and leveraging partnerships purposefully.

10.3. Having considered the options against the Council's profile (assets and preliminary financial considerations), officers; having consulted with the Council's Cabinet Member for Environment and Climate Change, are of the view at this stage that **option one** would be the most beneficial to the Council and its residents.

10.4. Option one in the first instance would involve inviting Staffordshire Community Energy to submit a proposal for solar PV across the council's estate using a community benefit model.

11. Financial Considerations

This section has been approved by the following member of the Financial Management Unit: James Hopwood

11.1. There are potential financial implications should plans outlined in this report meet with the council's approval. They will continue to be developed, proposed and rolled out and will be considered as separate reports, where the financial implications will be detailed.

11.2. Once further financial details are available, as separate options appraisals and reports are developed, any impact on future years budgets will be incorporated in the update of the Medium Term Financial Strategy for 2025/26 onwards.

12. Risk Assessment and Management

12.1. The main risks to this Report and the Council achieving its objectives are as follows:

12.2. **Positive** (Opportunities/Benefits):

12.2.1. Reduced CO2 emissions through increased renewable energy generation, energy efficiency

12.2.2. Improved local air quality

12.2.3. Developing green skills and jobs related to sustainability

12.2.4. Promoting sustainable living and environmental awareness

12.2.5. Tackling fuel poverty through home energy efficiency improvements

12.2.6. Reduced waste through energy efficiency measures and community education

12.3. **Negative** (Threats):

12.3.1. Profound consequences of unchecked climate change including flooding, heatwaves, species extinction

12.3.2. Biodiversity loss through destruction of natural habitats
12.3.3. Air and water pollution, waste and plastics damaging environments
12.3.4. Unsustainable resource depletion
12.3.5. Lack of action undermining the quality of life for future generations
12.3.6. Missed opportunities for sustainable economic growth and green job creation
12.3.7. Increasing costs/repercussions of climate change impacts if urgent action is not taken

12.4. The risks do not need to be entered in the Risk Register. Any financial implications to mitigate against these risks are considered above.

13. Legal Considerations

This section has been approved by the following member of the Legal Team: John Teasdale

13.1. There are no significant legal issues arising from the Report at this stage.

14. Equalities and Health

14.1. **Equality impacts:** The subject of this Report is not a policy, strategy, function or service that is new or being revised. An equality and health impact assessment is not required.

14.2. **Health impacts:** The outcome of the health screening question does not require a full Health Impact Assessment to be completed. An equality and health impact assessment is not required.

15. Data Protection Implications – Data Protection Impact Assessment (DPIA)

15.1. A DPIA must be completed where there are plans to:

- use systematic and extensive profiling with significant effects;
- process special category or criminal offence data on a large scale; or
- systematically monitor publicly accessible places on a large scale
- use new technologies;
- use profiling or special category data to decide on access to services;
- profile individuals on a large scale;
- process biometric data;
- process genetic data;
- match data or combine datasets from different sources;
- collect personal data from a source other than the individual without providing them with a privacy notice (‘invisible processing’);
- track individuals’ location or behaviour;
- profile children or target marketing or online services at them; or
- process data that might endanger the individual’s physical health or safety in the event of a security breach

15.2 Following consideration of the above, there are no Data Protection implications arising from this report which would require a DPIA

16. Human Rights

16.1. There are no Human Rights issues arising from this Report

17. Sustainability (including climate change and change adaptation measures)

17.1. Does the proposal result in an overall positive effect in terms of sustainability (including climate change and change adaptation measures) Yes

17.2. Please detail any positive/negative aspects:

17.3. **Positive (Opportunities/Benefits)**

17.3.1. Directly reducing carbon emissions through renewable energy projects, energy efficiency improvements, and promotion of electric transport.
17.3.2. Developing green skills and jobs to support the transition to a low-carbon economy.
17.3.3. Tackling fuel poverty through improving home energy efficiency
17.3.4. The proposal delivers against the United Nations Sustainable Development Goals related to climate action, responsible production/consumption, sustainable cities and life on land.
17.3.5. On balance, it will result in a net positive sustainability impact if implemented successfully.

17.4. **Negative (threats)**

17.4.1. Increased carbon cost of administering projects. While the initiatives outlined aim to reduce carbon emissions overall, there may be some increased emissions associated with administering and coordinating the projects. For example, emissions from staff travel, procurement of materials/services, and disposal of waste.

17.4.2. However, steps can be taken to minimise these emissions such as:
- Promoting remote working and virtual meetings to reduce staff travel
- Ensuring offices/buildings used are energy efficient and powered by renewables
- Procuring sustainably - prioritising local sourcing, recycled materials, energy-efficient equipment etc.
- Managing waste effectively - reducing, reusing and recycling wherever possible

17.4.3. The sustainability gains from the successful delivery of each initiative are anticipated to outweigh these administrative emissions. But it is still important to be mindful of them and take mitigating steps where possible. Measuring, reporting and offsetting residual emissions should also be considered.

18. Recommendations

18.1. That Cabinet consider the contents of this report and consider also the four options proposed by officers. These are:

- Option one – Solar Community Energy Project;
- Option two – Energy Efficiency & Conservation First;
- Option three – Battery Storage;
- Option four – Virtual Power Plant.

18.2. Following the endorsement of one of the above options by Cabinet, that officers in consultation with the relevant Cabinet Member are authorised to invite proposals from relevant organisations with a view to producing an options appraisal, alongside any financial considerations and projections for implementing the model.

19. Background Papers

19.1. ESBC Corporate Plan (2023-24) – Revised Edition
19.2. ESBC Climate Change and Nature Strategy
19.3. ESBC Climate Change Action Plan
19.4. Staffs-County-Wide-Renewable-Low-Carbon-Energy-Study
19.5. UK Governments Point Plan for a Green Industrial Revolution
19.6. Net Zero Strategy: Build Back Greener
19.7. The British Energy Security Strategy Future Energy Scenarios

20. Appendices

20.1. Appendix 1 - The Current Energy Picture in East Staffs
20.2. Appendix 2 - Current Energy Projects
20.3. Appendix 3 - Potential Solar Sites
20.4. Appendix 4 - Types of Renewable Technology (expanded text)
20.5. Appendix 5 - Staffordshire Community Energy
20.6. Appendix 6 - Community Energy Alternative Finance Options
20.7. Appendix 7 - AMP Battery Box Briefing Paper