

**Somerset Energy Investment Plan by Regen for Somerset Council
Report from Task & Finish Group for Climate and Place Scrutiny Committee**

1) Introduction

- 1.1 The energy plan task and finish group, established by the Climate and Place Scrutiny Committee, has reviewed information and proposals from Regen as they developed the Somerset Energy Investment Plan. The cross-party working group has challenged and contributed constructively as the plan has emerged. The working group thanks Regen for their presentations and all their work on the energy plan.
- 1.2 The Regen plan sets out an important framework for the development of the energy system in Somerset and focuses on how Somerset Council can assist the network to develop to meet both energy needs and address the climate emergency by moving towards a net zero future for greenhouse gas emissions.
- 1.3 It is important to be aware of the many partners and contributors to energy supply and use in Somerset, including energy generators, distribution networks, regulators, the government, the council, land and property owners, community groups and energy users.
- 1.4 Key elements of the future energy framework set-out by Regen to allow a net zero pathway are:
 - a. Reduced demand through energy efficiency, building insulation and technology shifts, such as electric vehicles and heat pumps.
 - b. Electrification of energy supply through renewable and low carbon energy sources, both local and national.
 - c. Support for the right infrastructure, flexibility and storage assets.
- 1.5 In the report's foreword, Cllr Darch says, due to its current financial situation, the council will need to take on the role of enabler and co-ordinator rather than lead investor.

2) Key themes, milestones, opportunities and recommendations

- 2.1 The task and finish group endorses the key themes, milestones, opportunities and recommendations for new actions in the Regen report, especially the following:
 - a. Installing solar or wind power at ten council sites with considerable potential for local generation, as well as looking for opportunities that benefit all parties for Virtual Power Purchase Agreements and for private wires to high-energy users (p. 53).
 - b. Develop a land use framework to underpin the development of robust Local Plan policies on renewables (p. 58).
 - c. Encourage local hubs to develop local skills for low carbon heating and retrofit installations (p. 66).
 - d. A Net Zero Heat Village trial to demonstrate how to deliver zero carbon heat in an off-gas rural village (p. 70).
 - e. Engage with the new Regional Energy Strategic Planner to influence investment in the electricity network (pp. 75-77).

- 2.2 The ten sites with potential for local renewable energy generation could provide local jobs and a good return on investment, funded by borrowing, for the council. There should be a thorough appraisal of this opportunity, probably working with business and/or community developers. Further council sites and buildings could also be found to be well suited to renewable generation.
- 2.3 As suggested by Regen, opportunities for a local community or a community group to lead a Net Zero Heat Village trial project could be considered, taking account of funding and support needed as well as the importance of good monitoring of what is learnt and achieved.
- 2.4 It is also important that Somerset Council continues to develop existing and emerging plans and programmes, including:
- a. To decarbonise council buildings, such as offices and leisure centres (p. 54-55).
 - b. To decarbonise the council's housing stock, working with other social housing providers (p. 62-3).
 - c. To include robust planning policy in the new Local Plan to support the development of high-quality large-scale solar, wind and energy storage projects (p 59) and to support and deliver zero carbon homes, including energy improvements for historic and listed buildings (p. 64).
 - d. To develop public charging infrastructure for electric vehicles (p. 72-3).
 - e. To improve and electrify bus services (p. 74).
 - f. To prepare a transport plan that promotes public transport and active travel (p. 74).
- 2.5 Electricity grid constraints on the transmission network are a big brake and delay on the development of local renewable generation (pp. 33-34). These constraints could also restrict the roll-out of electric vehicle charging infrastructure and prevent the early adoption of heat pumps in some new housing estates.
- 2.6 The Local Plan (2.4c above) is a big opportunity for Somerset Council to advance progress towards net zero, but one that is significantly delayed by the time taken for the plan's production, consultation and adoption. It's also a missed opportunity for development approved before new net zero policies are adopted and for new energy infrastructure that cannot proceed before new policies are in place.
- 2.7 Large-scale solar, wind and energy storage projects may gain more support and give greater local benefits where there is early involvement of local communities and with profits to be shared through on-going funding to local communities.
- 2.8 It should further assist if local generators could sell their electricity to local users, as promoted by [Power for People](#). And further local benefits could arise from planning policies to require large-scale solar, wind and storage schemes, when in suitable locations such as near major roads, to provide rapid public EV charging facilities, which could also allow free or discounted charging by registered local users.
- 2.9 Regen report (page 22) that there is some small-scale electricity generation from fossil fuels in Somerset and an energy from waste (EFW) plant with another in the pipeline. Consideration should be given to the possibility of new planning policies that require current and future small-scale electricity generation (using fossil fuels) to be powered from the grid instead, from battery storage or from a clean fuel source, such as green hydrogen. Consideration should also be given to requiring the capture of greenhouse gases from EFW plants.

- 2.10 More attention is needed on grid and planning policy constraints, including to identify and promote actions that could start to overcome these constraints in shorter time periods than are currently planned.

3) Targets for home energy performance and local renewable energy generation

- 3.1 The task and finish group supports targets in the Regen report, which cover all homes achieving an EPC (Energy Performance Certificate) of C or above, the take-up of heat pumps, switching to electric vehicles, installing solar photovoltaic (PV) panels on roofs, and renewable generation from solar farms and wind turbines.
- 3.2 All these targets are challenging and some need greater support from government, especially on home energy performance.
- 3.3 However, as indicated by Regen, EPC C by 2035 (pp. 17 & 43) does not currently provide a clear guide for householders wishing to make a full contribution to net zero. Also, local renewable energy generation may be able to contribute more than the 45% target suggested (p. 46). These targets should be subject to future review. For now, they should be sufficient to encourage and allow good progress towards net zero, although it is important to be aware that higher home insulation standards may be needed to achieve net zero and so should be promoted too.
- 3.4 Guides for achieving net zero in the energy performance of buildings with new builds or by retrofit are provided by LETI (see: www.leti.uk/cedg and www.leti.uk/retrofit) and by the Net Zero Carbon Toolkit that was adopted by Somerset West and Taunton Council (see: www.somerset.gov.uk/planning-buildings-and-land/other-design-and-technical-guidance/net-zero-carbon-toolkit-in-somerset-west-and-taunton). These net zero guides adopt a whole house approach to insulation which is important to ensuring high performance and for avoiding problems, such as damp and mould, that can arise from piecemeal insulation measures, especially in older properties.
- 3.5 Effective insulation to a high standard should be considered when installing a heat pump and ideally before (called fabric first design). As well as avoiding the risk of damp and mould problems, a whole house (fabric first) approach reduces energy demand (saving on bills) and allows heat pumps to be installed at the correct size, which are then able to operate effectively and efficiently.
- 3.6 Households need good and reliable advice and information on insulation and on switching to a heat pump. They may need to decide how far they can go in retrofitting insulation to their homes and should consider this when switching to a heat pump (ideally before). Wall insulation can be the most disruptive and costly energy efficiency measure for older houses with solid walls.
- 3.7 Insulation should be viewed as a long-term investment with an initial cost that is paid back over time in savings on energy bills. It would assist if this investment could be reflected in house values, which might be achieved by Green Building Passports, as recommended by the Committee on Climate Change and the House of Commons Environmental Audit Committee.
- 3.8 Somerset Council needs to consider how it can best assist and work with others to improve the energy performance of Somerset homes. This can build on several initiatives and programmes already underway, some with government or energy supplier funding.

- 3.9 The high targets for more solar generation in the Regen report are likely to be challenging, due to grid constraints on solar farms and the higher costs involved in rooftop installation.
- 3.10 The annual rate of rooftop solar PV installations was much higher in the past when a feed-in tariff was available. The payback from solar PV should continue to slowly improve again, as the cost of panels continues to fall, while generation performance increases, and with improved prices paid for solar power exported to the grid.
- 3.11 Special community offers for the bulk installation of solar PV panels to households in an area could assist in increasing take up. There have been successful schemes already for this in parts of Somerset, which could be extended to new areas, possibly supported by local community organisations and involving local businesses.
- 3.12 As reported by Regen, there are few wind turbines at present in Somerset but areas with high wind speeds that could be suited to their siting, including by farmers, looking for diversification opportunities, and other landowners. First, planning policy obstacles need to be addressed and, in some areas, grid constraints. Once there is more experience of installing wind turbines in Somerset, the future contribution of this low-cost electricity source could be reviewed and, possibly, increased.

4) Next steps for the Climate and Place Scrutiny Committee and Executive

- 4.1 Climate and Place Scrutiny Committee is asked to recommend both the Regen report and this report from the Task and Finish Group to Executive.
- 4.2 As suggested by Regen (p. 85), the Council needs to consider the Energy Plan internally and with external stakeholders and partners. It should further prioritise the actions recommended, drawing up internal action plans with allocated resources and funding for each area.
- 4.3 In particular, it is recommended that the Executive and relevant Lead Members progress the following:
 - a. Appraisal for solar or wind power installations at ten council sites with considerable potential for local generation, as well as opportunities, that benefit all parties, for Virtual Power Purchase Agreements and for private wires to high-energy users.
 - b. A land use framework to underpin the development of robust Local Plan policies on renewable energy generation.
 - c. Support for local hubs to develop local skills for low carbon heating and retrofit installations in Somerset homes and commercial buildings.
 - d. Implement a Net Zero Heat Village trial to demonstrate how to deliver zero carbon heat in an off-gas rural village, possibly by working with a willing local community or community group.
 - e. Council engagement with the new Regional Energy Strategic Planner to influence investment in the electricity network to overcome current grid constraints.
- 4.4 The Executive and relevant Lead Members are recommended to continue current work to progress the following:
 - a. To decarbonise council buildings, such as offices and leisure centres.
 - b. To decarbonise the council's housing stock, working with other social housing providers.
 - c. To include robust planning policy in the new Local Plan to support the development of high-quality large-scale solar, wind and energy storage projects and to support and

- deliver zero carbon homes, including energy improvements for historic and listed buildings. Early steps should be taken to develop and give weight to these policies.
- d. New Local Plan policies should encourage the early involvement of local communities in large-scale projects and for profits to be shared through on-going funding to local communities.
 - e. Consideration should be given to the possibility of new planning policies that require current and future small-scale electricity generation (using fossil fuels) to be powered from the grid instead, from battery storage or from a clean fuel source, such as green hydrogen. Consideration should also be given to requiring the capture of greenhouse gases from EFW plants.
 - f. Consider how to improve the energy performance of Somerset homes, as suggested in section 3.
 - g. To develop public charging infrastructure for electric vehicles.
 - h. To improve and electrify bus services.
 - i. To prepare a transport plan that promotes public transport and active travel.
- 4.5 Climate and Place Scrutiny Committee requests future reports from officers and external partners so that further consideration can be given to the following:
- a. Progress on the Local Plan and, in particular, opportunities for early weight to be given for policies to support large-scale solar, wind and energy storage projects, the delivery of zero carbon homes, and energy improvements for historic and listed buildings.
 - b. Constraints on the electricity distribution grid and work, including time scales to overcome these, both by network providers and by the new Regional Energy Strategic Planner. Also the potential for local generators to sell to local users.
 - c. The work of community energy groups in Somerset and their interest in expanding this further.
 - d. Economic development opportunities from local renewable energy generation and local hubs to develop local skills for low carbon heating and retrofit installations in Somerset homes and commercial buildings.