Community Energy in Essex: Leading the Way on the Clean Energy Transition

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Executive Summary

The Essex Climate Action Commission (ECAC) is an independent cross-party body of public, private and community leaders. In the face of growing risks from the climate crisis the Commission has developed tangible options to build economic opportunity, deliver new jobs, and provide benefits to the people in Essex.

These centre on lower household bills from improved energy and water efficiency; improved public health from warmer, healthier homes, increased walking, cycling and public transport, cleaner air and more access to green spaces; and development of skills and jobs in renewable energy, construction and agricultural sectors.

One of the seven priority areas for the ECAC is energy. Essex is already at the forefront for innovations in community energy systems driven by local people. This work has two aims: i) making homes more comfortable and cutting the cost of household energy bills; ii) building new social capacity across the communities of Essex to generate renewable energy and share locally.

This review summarises the outcomes of field visits to four communities, drawing on local experience of transitions to clean energy. Great British Energy will now be providing guidance and tangible financial support for rapid expansion of community energy in the coming years. Essex is well-placed to take advantage of these opportunities.

Good public engagement is critical to the success of this form of climate action that will bring public benefits. Local communities and regional government will have a vital role to play in the coming energy transition. National government has set a target for 10% of national energy coming from community energy systems.

Overview of the Essex Climate Action Commission

1. The Essex Climate Action Commission (ECAC) is an independent cross-party body of public, private and community leaders[1]. The Commission was set up by Essex County Council in 2020, and tasked with advising on how to address climate and nature recovery in Essex.

2. Essex's geography makes it particularly vulnerable to the impacts of a changing climate that already features greater weather extremes, rising seas, increased inland floods and subsidence, drinking water scarcity, and rising air pollution. These impacts are detrimentally affecting peoples' lives, the delivery of public services, and the success of businesses.

3. In its first major report, the Commission made more than 100 recommendations focused on improving the lives of people of Essex. These aim to reduce costs for households and businesses, improve public health, and speed sustainable economic growth across Greater Essex.

4. Essex has won a number of national prizes for its innovative approach and delivery. A 2024 report documented 64 major positive impacts of work supported by the Commission on energy, land use and nature, transport, housing and planning, community engagement, waste and water, and economic growth.

5. Climate action in Essex has secured inward investment over the period 2020-2025, and public and private investment for schemes addressing renewable energy, biodiversity, water, regenerative agriculture and coastal protection is anticipated.

6. Though the risks of the climate crisis are growing, the Commission has developed tangible options to build economic opportunity, deliver new jobs, and provide benefits to the people in Essex. These centre on:
    i. lower household bills from improved energy and water efficiency, with upgraded homes, solar panels, heat pumps, and new housing built to high quality standards;

    ii. improved public health from warmer, healthier homes, increased walking, cycling and public transport, cleaner air and more access to green spaces;

    iii. development of skills and jobs in renewable energy, construction and agricultural sectors, which in Essex are dominated by SMEs with the potential for fast growth.

Field Visits to Energy Communities in August-September 2025

7. As Chair of the Essex Climate Action Commission (ECAC), I made four field visits to community energy groups and service providers in August-September 2025. These were to Littlebury (Sustainable Uttlesford and Saffron Waldon Community Energy), Danbury (Sustainable Danbury,

[1] The Commission is Chaired by Professor Jules Pretty OBE DL. All Commissioners work voluntarily and are listed at: https://www.essexclimate.org.uk/our-commissioners. A summary of the Commission's activities and impacts is published in a recent blog by the Chair: https://www.essexclimate.org.uk/what-is-the-essex-climate-action-commission. For more reports and supporting material, see www.julespretty.com.

now Common Green), Colchester (Community Energy Colchester), and White Colne (Colne Valley Community Energy Project).

8. I was accompanied by Omar Al-Amin and Adam Birchweaver of Essex County Council's Climate, Environment and Customer Service, who both work within the Energy and Low Carbon team. On-site discussions were held with thirteen local activists.

9. A key component of the work of the ECAC is to encourage the formation and spread of local groups. These groups have a range of focuses: prioritising climate action, nature recovery, community energy. Others comprise new priorities taken up by Parish and/or District Councils, or by existing environmental groups.

10. Notable examples include PACE Manningtree, Tollesbury Climate Partnership, Sustainable Danbury (now Common Green), Sustainable Uttlesford, East Hanningfield, Saffron Waldon Community Energy, Community Energy Colchester, Stour Power Community Energy and eMpower (Maldon). The three recently-formed farm clusters in Essex are further examples of coordinated and connected groups of people seeking change within a defined geographical area. The North Essex Farm Cluster contains 40 members farming 25,000 hectares of land.

11. There are 11 community energy groups in Essex in 7 districts. Nationwide, it is estimated that there are now more than 600 community energy groups. In total, some 29 local groups are involved in active energy-related transitions (approx. 10% of all parishes in Essex).

12. These local groups are creating what is called "social capital." This is defined as the trust, reciprocity, and relationships that increase togetherness, kindness and connectedness. These lead to collective action between and within communities, reducing the cost of household and business transactions.

13. This expansion of local social capital is part of a remarkable growth of groups worldwide who are working to increase local natural, social, human and physical assets. These include groups for forest management, integrated pest management, soil conservation, irrigation and drainage management. A 29-author 2020 global audit showed that in 122 initiatives in 55 countries the number of groups had grown from 0.50 million (in 2000) to 8.54 million (in 2020). The area of land transformed by the 170–255 million group members was 300 million hectares[2].

14. Community energy can thus be seen as part of a wider movement building transitions towards regenerative cultures and economies. Regenerative growth centres on the recognition, protection, and increase in five renewable capitals: natural, social, human, cultural and physical capital[3].

[2] See Pretty J et al. (2020). Assessment of the growth in social groups for sustainable agriculture and land management. *Global Sustainability* 3, e23, 1–16. https://doi.org/10.1017/sus.2020.19 [open access to download]

[3] See Pretty J et al (2025). How the concept of regenerative good growth could help increase public and policy engagement and speed transitions to net zero and nature recovery. *Sustainability* 17, 849. https://doi.org/10.3390/su17030849 [open access to download]

The Wider Domestic Policy Context: Great British Energy

15. In September 2025, the UK government published a Statement of Strategic Priorities for Great British Energy (GBE). The central aim is to support the clean energy transition, with a strong emphasis on ensuring communities benefit directly from this transition.

16. Five commitments were made:
    a. GBE is expected to increase public and community ownership of clean energy assets;
    b. GBE will co-lead delivery of a Local Power Plan that will scale up community-led clean energy generation that will decarbonize the energy system;
    c. GBE will support local authorities, mayoral strategic authorities and community energy groups;
    d. GBE will provide technical and commercial support and guidance, provide new grants and loans, and promote shared ownership models;
    e. GBE will be driven by community needs.

17. GBE has indicated it will be providing £1 billion per year of new investment in local energy projects (£600 million in loans, £400m in grants).

18. The government has predicted that the wider clean energy transition will create 400,000 new jobs by 2030. The oil and gas fossil fuel sector currently provides 120,000 direct and indirect jobs (fallen from 146,000 in 2018).

19. Government and non-profits (such as Energy Local) expect energy bills to fall by 10-25% for those engaged in the clean energy transition. In Essex, this is expected to be substantially greater for new houses built to passive-house standards (with solar PV, EV charging point, heat pump, high insulation and passive heating/cooling design). When a number of improvements are made to existing housing, evidence from community energy projects in Essex and elsewhere suggests that savings can be made to household bills.

The Emerging Focus on Community Energy in Essex

20. The Community Energy sector in the UK has set out six principles:
    a. Energy independence and reducing reliance on imported energy from overseas and the use of fossil fuels;
    b. Democratic decision-making and cooperative engagement;
    c. Prioritising community benefit over profits;
    d. Community origin – focusing on transformations in organisation and innovation within geographically-defined locations;
    e. Community resilience – engaging whole communities for wider cultural and biodiversity change;
    f. For local people to build human capital and hubs of expertise.

21. In 2024, the Community Energy Sector in the UK generated 250 MW of solar power, 133 MW of wind, and 13 MW of hydro (total 0.4 GW of power). There were 123 organisations providing energy advice and fuel poverty elimination, and 310 organisations providing retrofit services.

22. Community energy is aiding the transition to zero fossil fuel use in the UK. These smarter energy systems will be low to zero carbon. The world challenge is substantial: the elimination of 56 Gt (billion tonnes) of carbon emissions per year is vital if the Earth is not to be heated beyond irreversible tipping points.

23. The focus on community energy should also be seen as multifunctional. It has direct and indirect impacts. This is a key feature of regenerative economies. Regenerative systems are self-feeding and self-renewing, built on social processes of adaptive learning, and nourishing the capacity to thrive over long periods of time. Regenerative economies have circular flows of energy, information, resources, nutrients and money, and thus minimize the use of non-renewable resources and eliminate negative externalities (health and environmental costs imposed on others).

24. Wiltshire Wildlife Community Energy, for example, is using income from renewable energy generation to invest back in local wildlife enhancement.

Progress Across the County of Essex

Summary Headlines

25. There is good evidence of action on the ground across Essex, showing commitment and intent from local people for climate action. Local people are organised into new groups and/or drawing up existing institutions and parish councils.

26. Local people are thus helping in the transition to low carbon and clean energy systems whilst reducing energy costs for households. Community energy systems are using a combination of renewable energy generation (mainly solar), retrofit and insulation, heat pumps, and passive heating/cooling design in homes.

27. All local groups face frustrations at existing regulations and institutional norms. Many feel community energy could move much faster within their communities. Frustrations are also felt when they are invited to bid for county or national level resources and then receive no feedback. Nonetheless, several local groups are helping to reframe and change local policies and action at District and Parish levels.

28. At the same time, community energy groups are taking action beyond energy, focusing on local nature recovery, local food, planning issues, and creating sustainable and active transport.

Next Steps

29. There is now an opportunity to tell a better story about community innovations in Essex, and how they are speeding climate action whilst reducing household costs. Reducing energy costs is the top priorities of all households. Energy generation is desirable but comes lower as a priority.

30. GBE will bring considerable finance to the community energy sector. Local groups will need help to navigate these options, including in grant writing and positioning. However, home upgrade and retrofit resources are more easily accessed by wealthy households. Special attention is required to ensure poor households can access innovations that increase comfort and reduce energy costs.

31. A key challenge is now to move from the approximately 10% coverage of communities in Essex with local groups to 20-30%. This may help create new tipping points in business support, local jobs, knowledge and human capital. The same challenge exists within communities, where successful groups are yet to reach more than 10% of households able to install clean energy improvements.

32. At all locations, there are frustrations and concerns over listed building consents. These are costly to apply for and usually result in refusal for applications to install solar PV, EV charging points, insulation, and new windows. At the same time, it is said that English Heritage understands these challenges and wishes to support the clean energy transition.

33. There is considerable interest in the idea of peer-to-peer energy sharing within communities. This has not yet been implemented, even though it will reduce the need for UK Power Networks to invest in infrastructure. GBE has indicated that 10% of UK energy needs can be supplied by local communities, and energy sharing is expected to be part of this. As yet, local efforts have been met by blockages.

34. There are often fears among local groups of losing momentum, especially when external financial support seems to be available yet turns out to be part of competitive bidding applications (when only some win, and most lose).

35. Biodiversity is a good entry point for local action. Most people are in favour of nature recovery (or put another way, not many are against). The launch and publication of the Local Nature Recovery Strategy for Greater Essex has created a new opportunity to show how nature recovery links to many other aspects of climate action favoured by local people.

36. There is a need for better evidence on the impacts of community energy innovations on household energy bills. Energy costs in the UK remain the highest in Europe, and there are many concerns about pricing in the energy market. For renewables to be widely successful, local people need a clearer picture of the personal benefits they will obtain if they adopt new technologies and practices.

37. A typology of priorities for community energy would thus be: i) first deliver energy savings; ii) second focus on energy generation; iii) third, implement local energy sharing.

Conclusions

38. There will be bumps in the road with the clean energy transition. An electricity-economy that replaces oil and gas will need more transmission infrastructure (pylons), more physical installations of wind and solar (turbines on land, solar farms), and installations of infrastructure on listed buildings. None of these changes are comfortable, yet they do offer the benefit of ensuring Essex is well-placed to be a leading region in the new energy system and economy, contributing to faster climate action.

39. All those involved in community energy and the transition to regenerative economies will need to find better ways to tell the wider story better. How will renewables benefit households? Will they see real reductions in energy costs? Will they appreciate the health benefits of clean air as vehicles stop using fossil fuels? How will these local actions be shown to contribute to worldwide climate action that cools the planet?

40. Good public engagement is going to be critical to the success of climate action. Local communities and regional government will have a vital role to play and will need to ensure national government is aware of the innovations arising in Greater Essex. National government has set a target for 10% of national energy coming from community energy systems. Essex is already playing a significant role in innovation and spread. Much now can now be achieved as coverage expands and grows.