

Community Energy Capacity in the Midlands



Contents

Executive Summary..... 3

Introduction..... 4

 The opportunity..... 5

Integrated solutions..... 6

Recommended MNZH Actions..... 7

Local Authorities and Community Energy Groups.....10

Delivery context: Urban vs. rural community energy projects.....15

Conclusions..... 17

Appendices.....19

Contact.....27

Executive Summary

This report summarises the findings of the Community Energy Capacity Building Study commissioned by Midlands Net Zero Hub (MNZH) across six local authority areas: Birmingham, Worcestershire, Leicester, Herefordshire, North Lincolnshire and Nottinghamshire. The study engaged local authorities and community energy stakeholders through facilitated workshops to identify challenges, opportunities and practical actions that can accelerate community-led energy delivery across the Midlands.

Community energy is a significant regional opportunity. National policy is moving strongly towards local and community-owned clean power, with the Local Power Plan aiming to support more than 1,000 projects and expand community and local clean energy through up to £1 billion of funding. For the Midlands, this creates a timely opportunity to develop a coordinated regional pipeline of investable projects, build local ownership, reduce energy costs, strengthen resilience and deliver wider social and economic benefits.

The workshops found strong interest and substantial untapped potential across all six areas, but also common barriers: fragmented local energy systems, limited capacity and skills, procurement and governance complexity, grid constraints, financial viability challenges and insufficient project development support beyond feasibility. The maturity of local ecosystems varies, from North Lincolnshire's more established delivery model to more fragmented or constrained systems in Birmingham, Nottinghamshire, Leicester, Worcestershire and Herefordshire.

The report recommends that MNZH embraces a system-leader role for community energy across the region. This could include setting regional and local targets, overseeing a structured project pipeline, providing dedicated regional support infrastructure, coordinating strategic engagement with DNOs, integrating storage into infrastructure planning, and supporting more stable funding and investable financial models.

Local authorities could be supported to move from fragmented activity towards formal, place-based delivery systems: co-produced local energy strategies, long-term partnerships with community energy groups, clearer procurement routes, and targeted investment in skills, staff capacity and project development. Taken together, these actions can position the Midlands to capture available national funding, scale community ownership and make community energy a core pillar of regional net zero delivery.

Introduction

Purpose and scope

MNZH commissioned a Community Energy Capacity Building Study across six Midlands local authority areas, namely Birmingham, Worcestershire, Leicester, Herefordshire, North Lincolnshire and Nottinghamshire, with the aim of engaging councils and community energy groups in each area through a series of facilitated workshops to develop local community energy action plans and drive net zero progress through community-led initiatives.

Each area has their own resulting action plan, and an overarching guide to community energy for local authorities has been developed to provide advice and examples of specific actions to overcome barriers to community energy that were identified across the workshops. The local authority guide can have been provided as a separate document.

The purpose of this report is to provide a comprehensive summary of the study's findings and recommendations and to propose a regional-level strategic action plan for the MNZH that can support the community energy delivery across the region.

Definition of community energy

Community energy refers to collective, locally based renewable energy projects where participation is open and voluntary, and where communities (individuals, local organisations, SMEs or local authorities) have meaningful ownership and/or control through an appropriate legal entity. The primary purpose of the project is not private profit, but delivery of environmental, economic and social benefits to the local community such as more affordable energy, increased energy security and resilience, local economic development and job opportunities, reduced carbon emissions, and generating income for community benefit.

Strategic context

Community energy sits at the intersection of several national priorities including:

- Net zero and Clean Power targets
- Energy security and resilience
- Cost-of-living and fuel poverty
- Local growth and levelling up.

Recent policy direction and associated funding (e.g. Local Power Plan, GB Energy) is explicitly focused on:

- Increasing local ownership
- Scaling local generation.



The opportunity

The Local Power Plan aims to deliver 8GW of local and community-owned clean power by 2030, made up of community owned projects, local authority-led schemes and shared ownership within larger projects. The ambition is to support over 1,000 projects by 2030 giving access to every community.

Delivering 8GW of local and community owned clean power by 2030 will require very rapid growth of community energy from the current base of approximately 0.35GW in England and the government have earmarked significant funding to help make this happen.

Up to £1 billion funding for grants, loans + co-investment



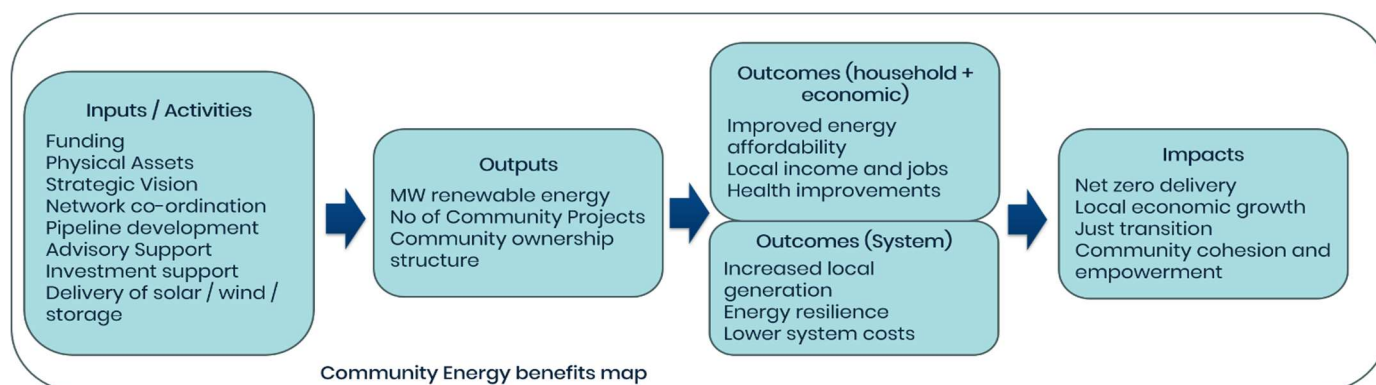
Unlock the pipeline



Attract private investment

The population of the MNZH area is over 11 million people, or approximately 18% of the total population of England, so based on a simplistic proportional estimate, the Midlands region could be targeting around 1.2GW of community energy projects and a potential £180 million share of the proposed funding.

If MNZH could initiate and oversee the rapid development of a pipeline of investable community energy projects aligned with the requirements of national programmes, the region could be well-positioned to capitalise on early waves of funding and take advantage of this opportunity to realise wide ranging benefits.



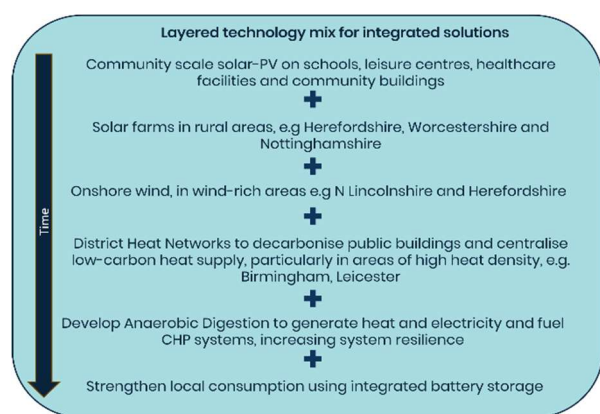
The Midlands has a large potential for community energy model deployment, because of its dense urban regions with high energy demand, extensive rooftop and public estate assets and significant distributed generation potential.

Solar presents the largest community energy opportunity in the shorter term, due to high rooftop availability, significant numbers of schools, warehouses and public buildings (Schools, NHS, Local Authorities, Transport Hubs etc) and lower planning barriers compared to wind. However, there are significant rural areas across the region, and a differentiated approach is required to support rural opportunities for wind based and other rural-appropriate technologies.

Integrated solutions

Community energy in the Midlands can grow through a complementary mix of technologies that address both electricity and heat demand while creating opportunities for local ownership and investment.

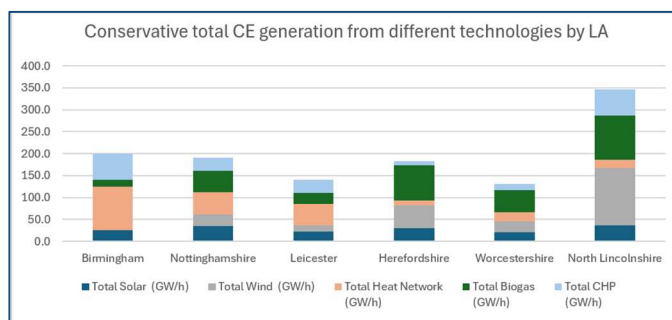
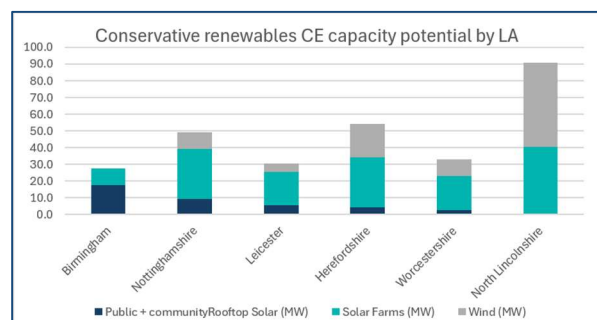
Based on stakeholder discussions at local workshops and evidence from local data, a broad mix of opportunities is available across the Midlands. Community-scale solar PV on schools, leisure centres, healthcare facilities and community buildings provides the most accessible starting point, offering visible local benefits, reduced energy bills and opportunities for community share ownership.



Solar farms and wind can then offer the opportunity to significantly increase scale, and with wind also yield, especially in more rural areas with more available land and suitable conditions. Developing Anaerobic Digestion (AD) offers opportunity in rural areas especially if connected to combined heat and power systems (CHP). Alongside renewable generation, District Heat Networks provide the opportunity to decarbonise public building and optimise utilisation especially in urban areas. Integrating battery storage can strengthen the system further by increasing self-

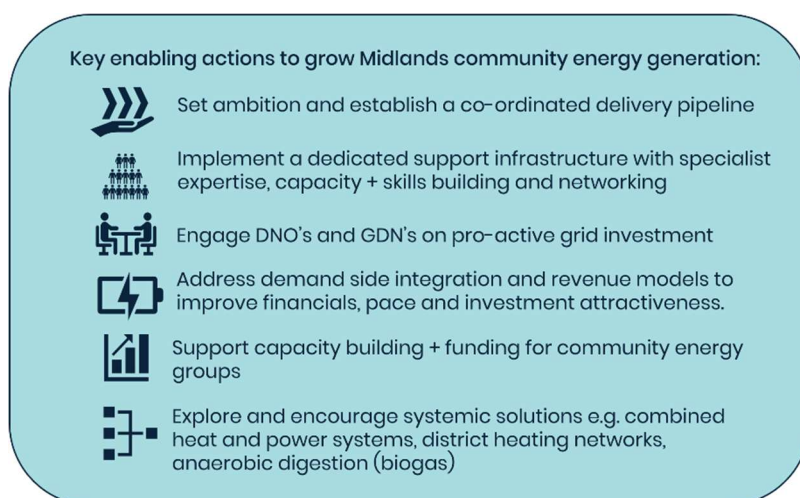
consumption, improving local flexibility and resilience and enhancing the economic model. Together, these technologies create a layered community energy system in which rooftop solar delivers immediate local benefits, wind and solar farms provide large-scale generation, heat networks tackle building emissions, AD and CHP utilise local resources, and batteries improve resilience and value, enabling the Midlands to develop a more secure, locally owned and low-carbon energy system.

The following graphs show very conservative estimates of the potential of the community energy capacity and generation from different types of technology in the different LA areas, based on public and community owned buildings and land, at low-end capacity adjusted down for non-participation.



Recommended MNZH Actions

By adopting a 'system-leader' convening and co-ordinating role, MNZH can set ambitious targets, address systemic barriers and create the right conditions across the Midlands region for community energy to succeed and grow at pace.



1. Set community energy ambition for the region to support national funding decisions, policy development and community engagement.

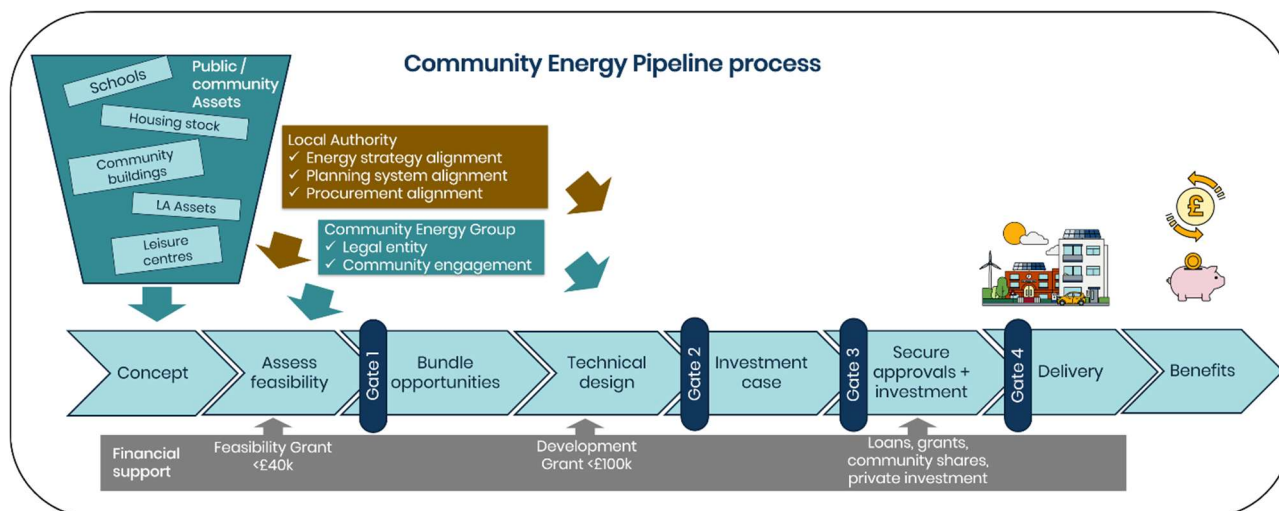
MNZH could draw on a number of different methodologies, along with data from the capability building study, to estimate community energy potential across the region and define ambitions that help to engage communities, enhance opportunities to lobby national government for improved funding for community energy, guide local authorities to embed community energy in their policy and decision making, and contribute to establishing the conditions for community energy growth.

2. Set-up and oversee a structured community energy project pipeline.

Based on analysis of GB Energy principles and funding criteria outline in the Local Power Plan and other guidance documents, a pipeline process to support community energy project development should:

- Offer a clear end-to-end development pathway – a structured pipeline
- Include in-house or partnered technical + financial expertise
- Provide standardised tools (models, templates, cases)
- Deliver investment-ready outputs, with the right ownership models – not just advice.
- Actively shape a pipeline of scalable projects with assured quality and viability

- Evidence a clear pipeline development pathway with projects progressing through defined stages, with approval stage gates.



Establishing this at a regional scale maximises the potential for collaborative working, shared learning and economies of scale. As system leader and convenor, MNZH can facilitate effective information sharing and capacity building, address fragmentation and systemic barriers, make effective connections between community groups, local authorities, investors and developers, build regional synergies and accelerate the pace of community energy delivery across the Midlands.

3. Implement a dedicated regional community energy support infrastructure

Capacity and skills in both community energy groups and local authorities were identified throughout as key barriers to scaling Midland community energy. A dedicated regional support structure would emphasise that community energy is a key pillar of net zero delivery and improve the quality and pace by providing expert support from the early stages to enable community groups to reliably develop projects from feasibility to investment readiness. Dedicated support can broker and enable partnership opportunities between community energy groups, local authorities and small businesses, and accelerate progress by signposting to curated technical and financial expertise. Identified skills gaps in both local authorities and community energy groups can be addressed through curated training and sharing skilled resources between groups and areas.

4. Lead system engagement with DNOs and GDNs in partnership with Local Authorities

Grid constraints present a major barrier to renewables delivery and require a well-planned and co-ordinated system-wide approach to increase leverage, inform project prioritisation, influence grid planning and maximise generation potential in the Midlands. The MNZH as system leader is well-placed to oversee strategic discussions about the Midlands region and to support Local Authorities with corresponding local negotiations. With good and early DNO and GDN engagement, community energy projects can be right-sized for grid compatibility, e.g. aggregating multiple projects, feeding district heat networks, offtakes for AD biogas, or down-sizing large schemes.

5. Demand-side integration and revenue models

Historically, community energy in England has been driven by generation-led revenue models, particularly supported by the Feed-in Tariff (FiT). In the current policy and market context, this approach is no longer sufficient to ensure project viability. Across the Midlands, workshop findings consistently highlighted that many otherwise suitable sites (e.g. schools, community centres, faith buildings) face viability challenges due to mismatched generation and usage profiles, with peak solar generation

occurring at times of low demand. Addressing this demand mismatch is therefore a priority for scaling community energy delivery.

The transition from subsidy-supported generation to demand-led, market-based community energy represents both a challenge and a major opportunity. By aligning local generation with local demand, deploying flexible technologies, and adopting blended revenue models, community energy projects in the Midlands can become more financially viable, scalable, and impactful.

The MNZH could support development and piloting of a range of models to improve viability and scalability of emerging community energy projects and provide tested routes to overcoming constraints and securing investment. For example, optimising on-site consumption, addressing demand mismatch, local supply and flexibility + storage capacity and adopting blended revenue models.

6. Predictable funding

Community Energy organisations need access to longer term predictable funding to build their own capacity and capability beyond what are often predominantly volunteer roles. MNZH could identify funding and support to enable longer term capacity and capability to be secured.

Local Authorities and Community Energy Groups

Midlands Local Authorities and local community energy groups identified systemic challenges that impede their shared ambitions to deliver place-based, integrated approaches to community energy and net zero. MNZH can facilitate and support LAs to address these challenges and unlock greater scale and pace for community energy projects.

Priority actions for LA's to accelerate community energy



Establish co-produced joined-up LA energy visions and plans



Embed CE requirements in simplified procurement and across departments (e.g. housing, energy, transport)



Establish a local community energy network to bring together key stakeholders with a focus on partnership and delivery



Identify and make available local assets for community energy projects, e.g. community buildings, schools, council buildings etc.



Unlock sustainable funding with investment-ready projects, effective brokering, and well constructed finance packages



Invest in building skills and capacity with dedicated specialist staff

Workshop Findings

A series of three workshops were held with council representatives and Community Energy stakeholders in six separate Midlands local authority areas. The work culminated in the development of Community Energy Action plans for each area (shared separately) and a 'Guide to Community Energy' for Midlands Local Authorities focussed on the specific needs in the region.

The different areas shared many common issues, with the main differentiators being the level of maturity of the community energy ecosystem in each area, and the differing opportunities between urban and rural patches.



North Lincolnshire – mature and delivery focused ecosystem constrained by scaling challenges and process inefficiencies.

Issues	Opportunities
• Procurement + legal processes slow delivery • Site readiness issues (roofs, electrical capacity) limit rollout • Scaling challenging beyond straightforward rooftop projects • Some reliance on grant funding for viability	• Strong existing LA–CE partnership model • Established delivery track record • Large pipeline of public estate assets (schools, depots) • Clear potential to scale an already working system



Nottinghamshire – high interest, high potential but fragmented ecosystem needing co-ordination and capacity building.

Issues	Opportunities
• Significant skills + capacity gaps in CE groups • No shared view of activity, opportunities, roles • Uneven engagement (same groups involved) • Grid constraints (especially rural areas) • Lack of clear vision and coordination	• Strong appetite for community energy across communities • Active groups already in place • Existing partnerships (e.g. LA Energy Partnership)



Birmingham – high potential but system – blocked by governance and decision making.

Issues	Opportunities
• Procurement + governance act as major blockers • “Fear of decision-making” and slow approvals • Weak communication between council + CE groups • Volunteer burnout + declining capacity • Projects stalled at pre-delivery stages.	• Large urban asset base and demand • Strong skills and expertise exist in the ecosystem • Opportunities with schools, social housing, industrial rooftops • Potential to unlock scale quickly if barriers removed.



Worcestershire – active but struggling to scale financially. Developing ecosystem constrained by financial viability and investment readiness

Issues	Opportunities
• Projects not financially viable (post-FIT) • High grid connection costs + delays • “Ready” projects not investable • Lack of capital funding after feasibility stage • Need for clearer pathways and guidance.	• Strong grassroots activity and interest • Existing feasibility studies + project pipeline • Significant opportunity in commercial rooftops, industrial areas • Strong appetite for collaboration + knowledge sharing.



Leicester – urban, diverse but system-constrained – strong social opportunity where unlocking engagement and procurement is key.

Issues	Opportunities
• Procurement single biggest barrier • CE not embedded in planning or strategy. • Communication challenges with diverse communities • Demand mismatch (low daytime energy use in some buildings) • Limited council financial capacity.	• Large network of faith and community buildings • Strong social focus (fuel poverty, inclusion) • Existing climate strategies and LAEP data • Potential for community-led urban delivery models.



Herefordshire – Rural, constrained but innovative – requires new models suited to rural contexts.

Issues	Opportunities
• Grid export constraints (unreliable export income) • Projects struggle with scale (too big vs too small) • Financial viability + limited access to finance • Rural asset base limits large-scale opportunities • Lack of “middle-stage” development support.	• Strong collaboration between groups (e.g. Herefordshire Green Network) • Potential for Local supply / Energy Local models + co-location with demand (housing, industry) • Opportunity to pioneer “right-size” rural CE models • Strong interest in shared ownership approaches.

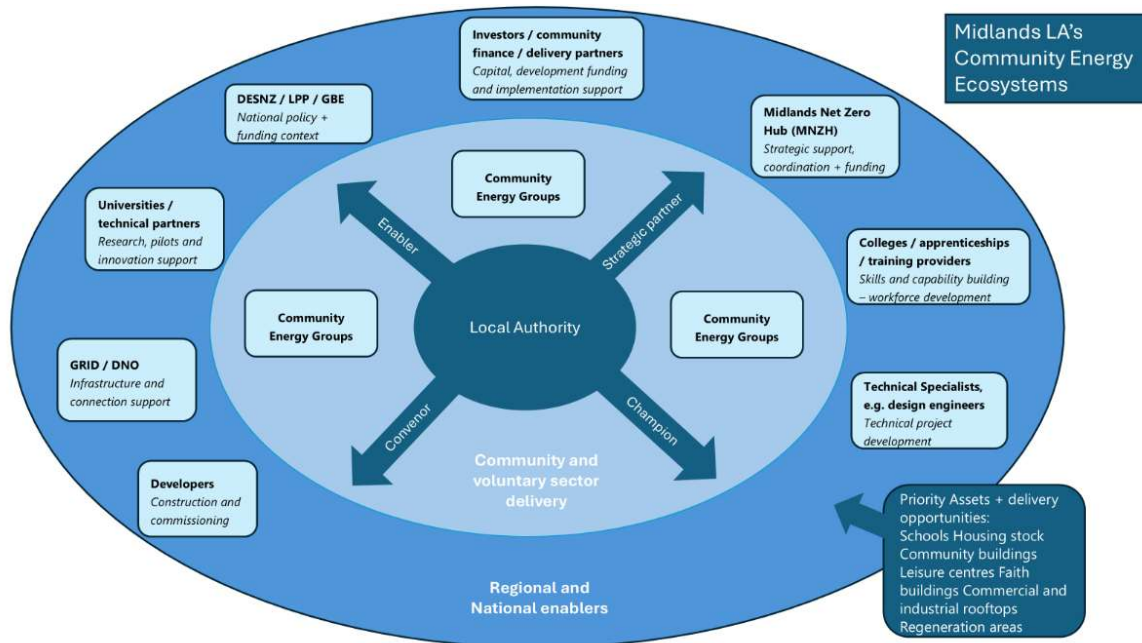
Common themes across all areas

Issues	Opportunities
• Lack of coherent vision for community energy across multiple portfolios • Procurement and systems complexity • Financial viability challenges • Capacity and skills gaps • Weak coordination and fragmented systems • Lack of clear pipeline development.	• Strong local interest and engagement • Significant untapped asset base (public + private) • Growing policy and national support (e.g. GB Energy) • Potential for partnerships, shared ownership, local economic benefits.

Local Authorities could:

1. Develop co-produced, place-based energy strategies and plans that align local authorities, communities, and key partners around a common set of goals and outcomes.
 - Create a single, clearly articulated local energy vision linked to net zero, affordability, and resilience.
 - Embed community energy explicitly within local energy and climate plans.
 - Ensure alignment across governance levels (local, regional, national)
2. Move from fragmented working to formalised, long-term collaboration mechanisms with community energy groups.
 - Set up local energy networks, partnerships or delivery boards involving public, private, and community stakeholders.
 - Define clear roles for community energy in delivery and specifically procurement processes.
 - Improve coordination across sectors such as housing, transport, and energy infrastructure.
3. Address the structural barriers that limit scaling by providing stable funding and investing in skills and delivery capacity.
 - Enable participation of community energy groups
 - Develop blended finance models (public, private, community investment) to support projects.
 - Invest in dedicated staff, skills, and technical support within both local authorities and community groups.
 - Prioritise viable, fast to implement projects first to build momentum quickly.

A comprehensive guide to addressing the barriers to community energy specifically for local authorities in the Midlands has been developed as one of the outputs of this work.



The local authority has a strategic role in the centre of the community energy ecosystem as a convenor, a champion, a strategic partner and an enabler, bringing together community energy groups with the various key stakeholders and support services they need to develop and deliver effective community energy projects. Holding the ring on overseeing their local pipeline, the local authority ensure a joined-up delivery plan that avoids duplication and wasted effort, leverages shared learning and collaborative working and maximises the benefits to the community and the area.

Delivery context: Urban vs. rural community energy projects

Community energy across the Midlands operates in two fundamentally different contexts. While the strategic objective—scaling local, community-owned clean energy—is consistent, delivery models must differ significantly between urban and rural areas to reflect variations in demand, assets, grid infrastructure, and financial viability.

Urban Community Energy Model

Urban areas (e.g. Birmingham, Leicester) are characterised by:

- High density of buildings and energy demand
- Large volumes of viable rooftop assets (schools, commercial buildings, housing)
- Proximity between generation and consumption.

This supports a core delivery approach of rooftop solar PV deployment across multiple buildings, on-site or local consumption via long-term PPA's, and the aggregation of different sites into 'multi-site investment portfolios which may be more attractive to investors and to grid support if needed.

Advantages of urban community energy	Constraints of urban community energy
Scalability - large numbers of assets enable portfolio-based delivery	Complex procurement and governance processes
Demand alignment - strong daytime demand improves financial returns	Fragmented asset ownership and decision-making
Integration potential - can be embedded within wider programmes (housing retrofit, EV infrastructure, regeneration)	Limited long-term control over some buildings
Replicability: Standardised contracts and delivery models allow rapid rollout	Demand mismatch in certain asset types

Urban models should focus on coordinated, high-volume deployment, using aggregation and standardisation to unlock scale and attract investment.

Rural Community Energy Model

Rural areas (e.g. Herefordshire) are characterised by:

- Dispersed, lower-density energy demand
- Greater availability of land for generation
- More constrained and less flexible electricity networks
- Lack of high-pressure gas connections for Anaerobic Digestion (AD) projects.

Rural delivery tends to centre on land-based generation (solar farms, wind, biomass), co-location of generation with local demand if possible, and right sizing of projects to align with grid capacity.

Advantages of rural community energy	Constraints of rural community energy
Access to land enables larger individual generation assets	Severe grid export limitations restricting project scale
Strong opportunities for community ownership and local participation	"Scale gap" (projects often too small for investment or too large for local grid capacity)
Potential for innovative local supply models	Limited access to finance, skills, and delivery capacity
Ability to co-locate with farms, industry, and rural businesses	Higher cost and risk per project

Rural models should focus on matching generation to local demand, minimising export dependency, and enabling innovative local supply and storage solutions.

Strategic Approach

To maximise delivery across the Midlands the MNZH could adopt dual delivery strategies with planning, funding and methodology customised for urban and rural contexts, as shown in the table below. This should result in a broader pipeline of investable projects and accelerate the delivery of community energy projects. Through effective system leadership, knowledge transfer between the sectors can be enabled, combining the urban strengths of scale and replication with the rural strengths of innovative local supply and co-location.

Dimension	Urban Model	Rural Model
Delivery approach	Aggregated rooftop portfolios	Co-located, land-based generation
Scale	Many small sites bundled together	Fewer, larger or right-sized projects
Primary assets	Public estate, commercial rooftops	Land, farms, rural businesses
Demand profile	High, dense demand	Dispersed, lower demand
Key challenge	Coordination and procurement	Grid constraints and viability
Key opportunity	Scale through aggregation	Innovation in local supply and co-location

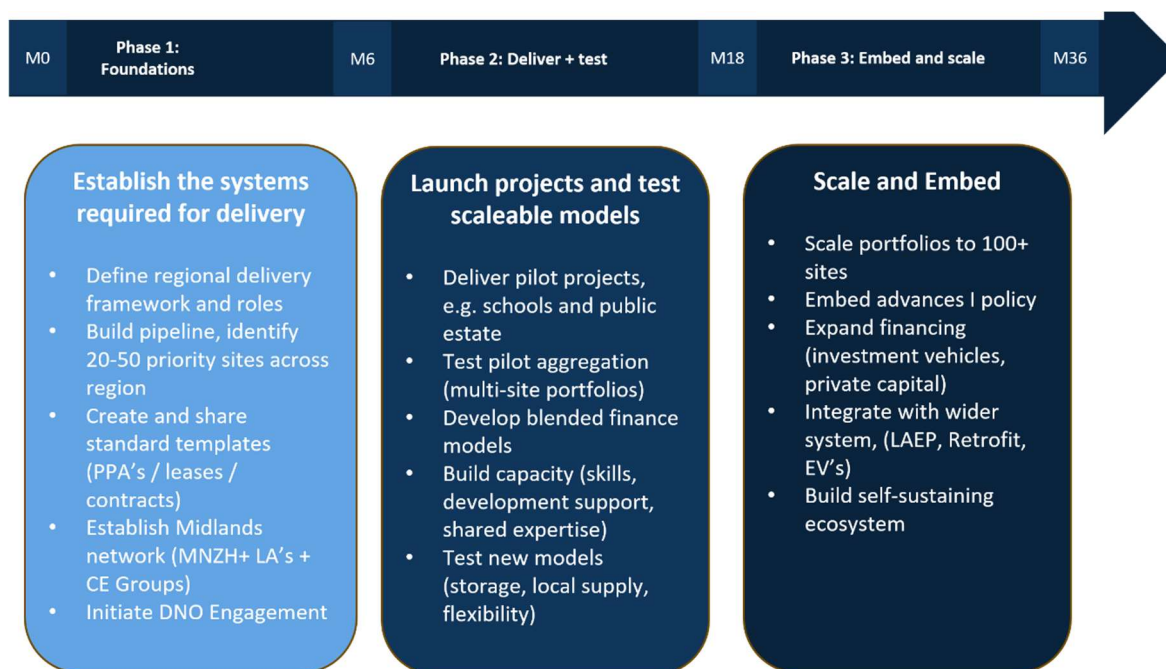
Conclusions

The Midlands region has significant potential for growing community energy in the next few years, by addressing risks and taking opportunities, significant public and private investment could be leveraged, offering broad benefits both to participating communities and the whole region.

Risk Area	Risk Description	Impact	Mitigation
1. Coordination & Delivery	Fragmented roles and lack of coordination across Local Authorities, community groups + partners	Projects stall at feasibility stage; duplication of effort; failure to scale delivery	Establish regional delivery framework; define clear roles and stage gates; create centralised pipeline managed by MNZH
2. Procurement & Governance	Complex, slow and risk-averse procurement processes, particularly for public sector assets	Project delays, increased costs, potential loss of viable schemes	Develop standardised PPAs and leases; pilot procurement-light approaches; provide clear guidance on delivery routes
3. Financial Viability & Investment	Insufficient access to development and capital finance; weak commercial models post-FiT	Projects fail to progress to delivery; reduced investor confidence; limited pipeline growth	Develop blended finance models; aggregate projects into portfolios; provide development and bridging finance support
4. Grid Capacity & Infrastructure	Limited network capacity, especially in rural areas, restricting connections and export	Reduced project scale or cancellation; delays; increased costs	Engage strategically with DNOs; align projects with grid capacity; integrate storage and flexibility solutions
5. Capacity & Skills	Limited capacity in Local Authorities and reliance on small community energy teams	Slower delivery, inconsistent project quality, risk of burnout	Invest in skills and training; provide shared regional expertise; fund delivery roles and development support
6. Demand & Revenue Alignment	Mismatch between generation (e.g. solar) and energy demand timing reduces revenue	Lower financial viability; underutilised assets; longer payback periods	Design projects around demand; aggregate across sites; deploy storage + local supply models
7. Policy & Funding Uncertainty	Reliance on emerging national programmes (e.g. GBE) + evolving policy landscape	Uncertainty in funding availability; delays in decision-making; missed opportunities	Maintain pipeline readiness; diversify funding sources; engage with national programmes early
8. Community Engagement & Trust	Limited awareness or trust in community energy among stakeholders + residents	Reduced participation; slower development; weaker social impact	Work with trusted intermediaries; deliver visible pilot projects; communicate clear benefits (cost, resilience, local value)
9. Urban–Rural Delivery Misalignment	Applying uniform delivery approaches without accounting for contextual differences	Poor project viability; inefficient use of resources; missed opportunities	Adopt differentiated models (urban = aggregation; rural = co-location); tailor support, funding and pipeline development

Roadmap

Moving at pace would enable momentum building and position the region well for emerging funding streams and establishing itself as a leading deliverer of community energy in England. An indicative roadmap for establishing delivery systems in the first 6 months, launching and testing projects from month 6 – 18, and scaling and embedding from month 18 onwards is shown below.



MNZH could drive progress by embracing a system-leader role for community energy across the region. This could include setting regional and local targets, overseeing a structured project pipeline, providing dedicated regional support infrastructure, coordinating strategic engagement with DNOs, integrating local supply and storage into infrastructure planning, and supporting more stable funding and investable financial models.

Local authorities could be supported to move from fragmented activity towards formal, place-based delivery systems: co-produced local energy strategies, long-term partnerships with community energy groups, clearer procurement routes, and targeted investment in skills, staff capacity and project development.

Taken together, these actions can position the Midlands to capture available national funding, scale community ownership and make community energy a core pillar of regional net zero delivery.

Appendices

Table of Appendices	
Appendix A	Review of UK Community Energy capacity building schemes
Appendix B	Moving beyond generation-led models of finance

Appendix A – Review of UK Community Energy capacity building schemes

Community energy initiatives play a critical role in supporting the UK's transition to net zero while delivering local economic and social benefits. However, the success of these initiatives depends heavily on effective capacity-building mechanisms – including funding, technical support, skills development, and institutional partnerships.

This review examines various UK community energy capacity-building schemes and identifies common success factors and draws out lessons to inform future programme design.

Overall, the most effective schemes seem to be those that combine financial support with sustained technical assistance, prioritise early-stage development and strengthen local organisational capacity alongside project delivery.

Community energy organisations often face systemic barriers, including limited access to technical expertise, constrained financial resources, and reliance on volunteer capacity. Capacity-building schemes aim to address these challenges by providing integrated support across multiple dimensions:

- Financial (grants, loans)
- Technical (feasibility, engineering, legal advice)
- Organisational (governance, staffing)
- Social (community engagement, partnerships)

Transferable lessons from other community energy programmes

Based on review of existing community energy schemes and policies across GB the following key success factors have been identified:

- **Clear policy direction and supportive frameworks** are essential to facilitate the growth of community energy projects. Scotland and Wales have established targets for community energy, supported by a dedicated coordinating body or programme such as CARES or the Welsh Government Energy Service.
- **Access to funding** remains one of the most significant barriers for communities developing renewable energy projects. Successful programmes offer holistic financial support across different stages of project, covering feasibility, development, construction and operation. GBE CF funds feasibility and development activities to help projects reach investment-ready stage.
- **Broader support beyond financial** is also a critical enabling factor. Successful programmes have developed a comprehensive suite of resources, including feasibility tools, financial modelling templates, and guidance on governance and administration, to simplify development and promote good practice.

One of the most effective forms of support cited is the deployment of development officers, embedded within communities. These officers act as trusted local experts and help community groups navigate the complex technical and regulatory requirements.

- **Building strong local support networks** is vital for engaging communities, raising awareness, and developing community capability. Organisations such as Community Energy England, Community Energy Scotland and Community Energy Wales provide valuable research, networking opportunities and peer-to-peer learning. These networks sustain momentum, build confidence and support groups in addressing shared challenges.

- **Early engagement with planners and grid operators** is essential to avoid delays. Early discussions with planning officers, combined with clear demonstration of alignment with local climate and wellbeing objectives can mitigate planning challenges. Successful support programmes help communities prepare strong planning applications and navigate the long, complex planning process that could otherwise overwhelm volunteer groups. Similarly, lessons highlight the need for early engagement with grid operators, as early planning and technical support can help avoid costly delays at a later stage, with support programmes having a role to play in facilitating relationships between communities and local planners/ network operators.
- **Equity-focused approach**, including targeted support, embedded development officers and multi-year funding, is necessary to ensure all communities can participate in the energy transition. Lessons from England's Net Zero Hubs indicate that annual funding cycles compress delivery timelines and amplify the impact of delays, suggesting the value of longer, more stable funding, especially for communities that are resource constrained.

Appendix B – Moving beyond generation-led models of finance

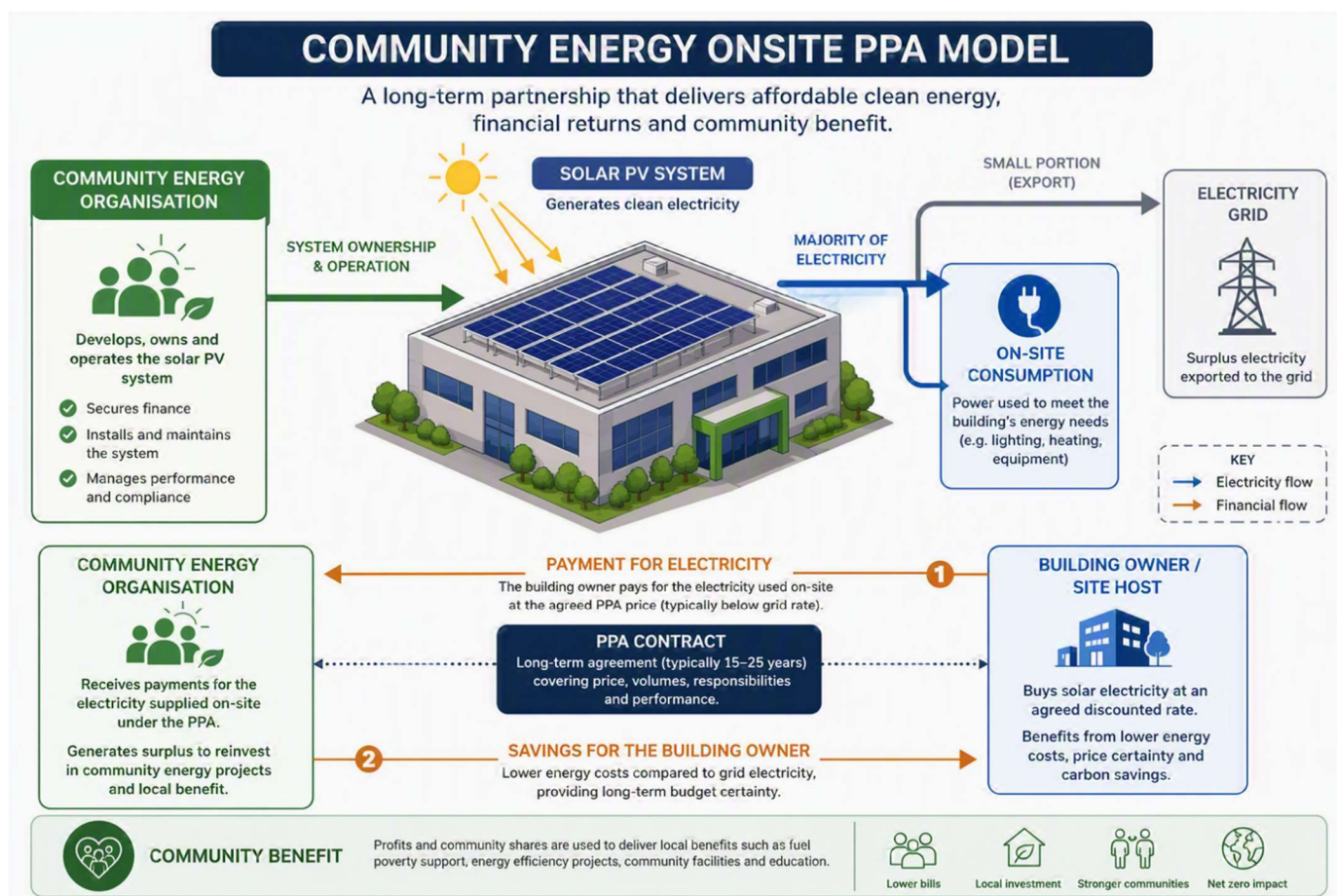
Historically, community energy in England has been driven by generation-led revenue models, particularly supported by the Feed-in Tariff (FiT). In the current policy and market context, this approach is no longer sufficient to ensure project viability. Revenue from electricity export alone is typically too low and uncertain, meaning that projects which do not maximise local consumption often struggle financially.

Across the Midlands, workshop findings consistently highlighted that many otherwise suitable sites (e.g. schools, community centres, faith buildings) face viability challenges due to mismatched generation and usage profiles, with peak solar generation occurring at times of low demand. Addressing this demand mismatch is therefore a priority for scaling community energy delivery.

The transition from subsidy-supported generation to demand-led, market-based community energy represents both a challenge and a major opportunity. By aligning local generation with local demand, deploying flexible technologies, and adopting blended revenue models, community energy projects in the Midlands can become more financially viable, scalable, and impactful.

Embedding demand-side thinking within project design and regional strategy will be essential to unlocking the full potential of community energy as a core component of the region's net zero transition.

Optimising on-site consumption



- The most immediate and widely deployable revenue model is based on maximising on-site use of electricity through Power Purchase Agreements (PPAs).

Under this model:

- A community energy organisation (or delivery partner) installs and operates a renewable asset.
- The host building purchases electricity at a pre-agreed price below market rates.
- Surplus electricity is exported or utilised elsewhere.

Advantages:

- Stable, long-term revenue for project developers
- Reduced energy costs and price certainty for building owners
- A clear, low-risk entry point for Local Authorities and public estate assets

Examples of priority buildings for this approach:

- Schools and education estates (consistent daytime demand)
- Leisure centres and public buildings
- Commercial and industrial rooftops

Key requirements:

- Securing long-term site access (typically 15–25 years)
- Ensuring demand profiles are sufficiently aligned with generation.
- Developing standardised PPA and lease agreements to reduce transaction costs

Addressing demand mismatch

Where on-site demand is limited or poorly aligned with generation, project viability can be improved through a combination of approaches:

1. Aggregation of demand – bundling multiple buildings or sites can:
 - Balance different demand profiles
 - Increase overall self-consumption.
 - Improve the scale and investability of projects

This is particularly relevant for Local Authority portfolios (schools, offices, housing), clusters of community buildings, mixed-use developments

2. Co-location with high-demand users – locating generation close to consistent energy users (e.g. industrial sites, large commercial loads) can significantly improve utilisation and revenue.
3. Integration with housing and retrofit programmes – additional demand streams can be created by linking community energy with:
 - social housing retrofit
 - electrification of heat (e.g. heat pumps)
 - EV infrastructure

Emerging local supply and flexibility models

Beyond on-site consumption, there is growing potential for local energy supply and flexible system models to improve revenue capture and system efficiency.

1. Local supply / “virtual private wire” models – these models enable electricity generated by community energy projects to be sold to nearby consumers, rather than exported to the grid at

wholesale prices. This can increase the retained value within the local area, improve project revenues and strengthen the connection between local generation and local consumption

Regulatory developments (e.g. market reforms and flexibility mechanisms) are expected to further enable these models over time.

Energy Local and demand-matching approaches aim to match local generation with local demand in near-real time, provide consumers with lower-cost electricity when local supply is available and encourage behavioural change and demand shifting. These models can improve utilisation of renewable generation, reduce system constraints and enhance community participation

2. Energy storage and flexibility services – battery storage and flexible demand (e.g. EV charging, heating systems) can play a key role in improving project economics by:
 - Storing excess generation for later use
 - Reducing exports during constrained periods
 - Enabling participation in flexibility markets and grid services

Integrating storage into community energy projects can improve resilience, increase revenue streams and mitigate the impact of grid constraints.

3. Blended revenue models – future community energy projects are likely to rely on multiple overlapping revenue streams, rather than a single source of income. A typical blended model may include:
 - On-site consumption via PPAs
 - Local supply or virtual trading arrangements
 - Export revenue (e.g. SEG or wholesale markets)
 - Flexibility services (e.g. demand response, storage optimisation)
 - Community investment and share offers

Diversification can improve financial resilience, attract a wider range of investors and enable projects to proceed in more challenging contexts.

Community Energy: Local Supply & Flexibility Models Comparison

Model Type	How It Works	Key Benefits	Limitations / Risks	Best Fit Context	Example
On-site PPA (baseline model)	Energy generated and consumed within the same building via long-term agreement	Stable revenue; low complexity; easy to scale	Limited to single-site demand; weaker value capture vs local supply	Urban public estate, schools, commercial buildings	Solar for Schools
Demand Aggregation (multi-site portfolios)	Multiple sites bundled together to share generation and balance demand	Improves utilisation; creates scale; attracts investment	Requires coordination and governance; some complexity	Urban areas with many assets	Bristol Energy Cooperative
Local Supply (Energy Local model)	Local generation matched with local consumers via a licensed supplier; pricing reflects local availability	Higher local value retention; demand-shifting; improved viability	Regulatory constraints; requires customer engagement	Rural and community-scale schemes	Energy Local (UK)
Virtual Private Wire / Sleaving	Energy generated at one site and allocated to another via supplier arrangements	Extends value beyond single-site; enables portfolio balancing	Complex contractual structure; dependent on suppliers	Urban multi-site portfolios	Bristol Energy Cooperative
Flexibility Services (market-based)	Projects provide grid services (e.g. demand reduction, load shifting) and receive payments	Additional revenue stream; supports grid; scalable	Requires technical capability; revenue uncertainty	Grid-constrained areas (urban & rural)	Piclo Flex
Storage-enabled systems	Battery storage used to shift energy use	Improves utilisation; reduces grid dependency;	High upfront cost; evolving	Both urban and rural (especially	SonnenCommunity

	over time and reduce export	adds resilience	business case	constrained grids)	
Local trading / peer-to-peer	Participants trade electricity locally through a digital platform	Maximises local value; innovative; high engagement	Regulatory limitations; early-stage model in UK	Future urban or community networks	Brooklyn Microgrid
Co-located generation & demand	Generation located near high-demand users (e.g. farms, industry) to maximise local consumption	Strong financial viability; reduces grid reliance	Site-specific; limited scalability	Rural areas	Herefordshire-style models
Hybrid model (aggregation + flexibility + local supply)	Combines multiple approaches: portfolios, storage, local supply, and flexibility markets	Diversified revenue; resilient model; future-proof	More complex delivery; needs coordination and expertise	Advanced / scaled programmes	Emerging integrated models

Implications for delivery

To unlock demand-side opportunities and viable revenue models at scale, the Midlands region should prioritise:

- Designing projects around demand, not just generation potential
- Developing standardised commercial models (e.g. PPAs, leases, shared ownership structures)
- Supporting pilots of local supply and storage-enabled models
- Integrating community energy into wider programmes (housing, retrofit, transport electrification)
- Building technical and commercial expertise within Local Authorities and community organisations

At a regional level, MNZH can play a key role in:

- Providing model contracts and financial templates
- Supporting pilot projects to test innovative revenue models
- Coordinating learning and scaling successful approaches
- Engaging with national policy and regulatory developments to enable local energy markets

Contact

