Electricity Distribution

Community Energy Scenarios

Exploring the future of community energy

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Acknowledgments

About Regen

This report has been prepared by Regen. Regen provides independent, evidence-led insight and advice in support of its mission to transform the UK's energy system for a net zero future. Regen focuses on analysing the systemic challenges of decarbonising power, heat and transport. A transformation of this scale will require engaging the whole of society in a just transition.

About National Grid Electricity Distribution

This report has been sponsored by National Grid Electricity Distribution. National Grid ED is the regional electricity distribution division of National Grid.

Formerly known as Western Power Distribution, it is the UK's largest electricity distribution network serving nearly 8 million customers in the Midlands, South West and Wales, delivering essential power to millions of homes and businesses across its regions.

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Executive summary

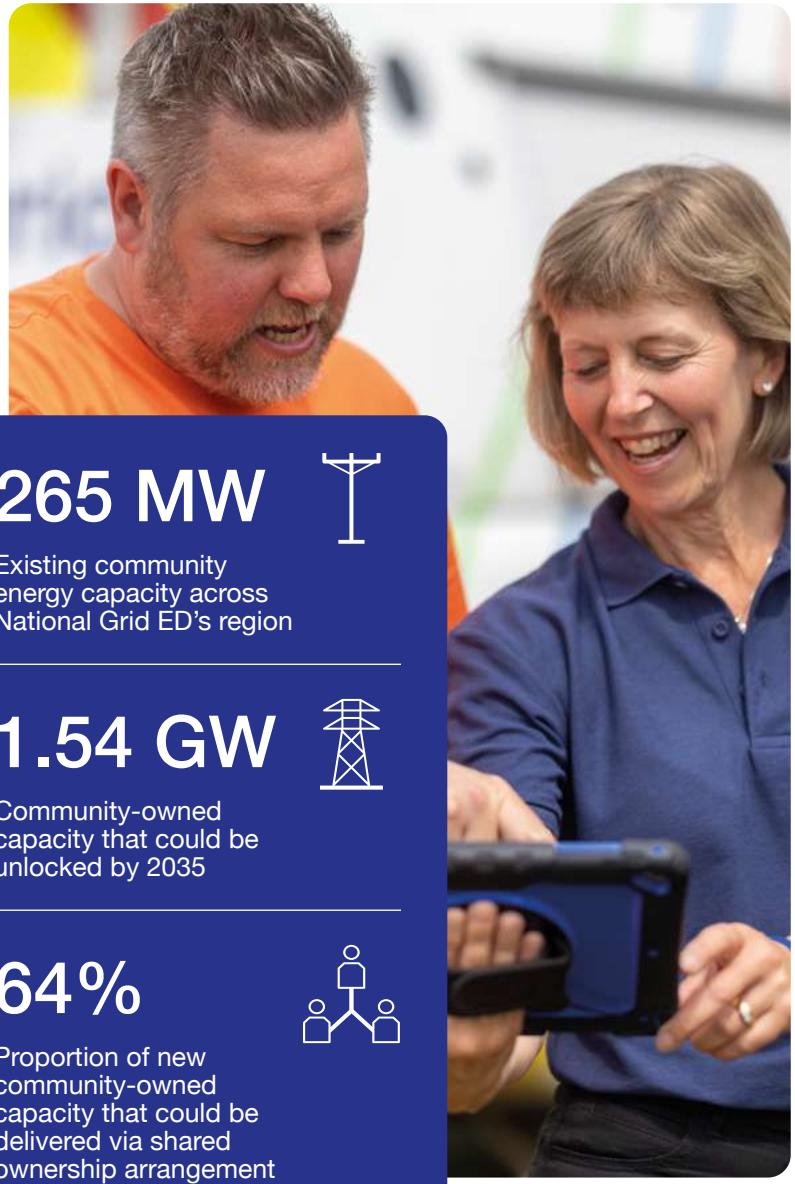
In October 2025, National Grid ED and Regen published The Future of Community Energy report, which explored the key influencing factors affecting when and where community energy projects are likely to develop in the future.

Now we have built on this research to model how strategic initiatives, such as repowering, shared ownership and targeted capacity building, can help accelerate community energy activity and distribute its associated benefits in a just way among communities.

This report explores three possible scenarios for community-owned generation capacity, covering grid-connected rooftop solar, ground-mounted solar, onshore wind and hydropower. The scenarios model varying policy, regulatory and market environments, currently being considered by the UK and Welsh governments, to estimate the uptake of community energy across National Grid ED's licence areas.

This analysis focuses on the top two priority areas for community energy identified in The Future of Community Energy study: generation and shared ownership. These represent where significant short and medium-term progress is expected in the sector. Community energy organisations are also involved in demand projects: battery storage, heat decarbonisation and EV charging infrastructure. These are not covered in this study, but with the right policy and support, progress could be expected in the medium to long-term.

This is the first time a network planning framework has been applied to assess the future of community energy, creating a new evidence base for policymakers, network operators and investors seeking to understand what it will take to deliver community energy at scale. The findings come at a pivotal moment as the UK government and Great British Energy move to deliver the Local Power Plan, Welsh Government and Ynni Cymru work to enable at least 1.5 GW of locally owned capacity by 2035, and DNOs develop their business plans for the ED3 price control.



265 MW

Existing community energy capacity across National Grid ED's region

1.54 GW

Community-owned capacity that could be unlocked by 2035

64%

Proportion of new community-owned capacity that could be delivered via shared ownership arrangement

Scenario 1:
Steady Growth
Community energy project development continues at a rate similar to recent years, predominantly led by established community energy groups.

Scenario 2:
Accelerated Uptake
Stronger growth in community energy development, supported by a mandatory 5% shared ownership offer introduced by the UK government, alongside incentives in the Welsh planning system.

Scenario 3:
Transformational Change
A mandatory 20% shared ownership offer, combined with targeted capacity building support, enables every community to own a stake in an energy project.

The modelling shows that community-owned generation capacity across National Grid ED's licence areas could reach up to 1.5 GW by 2035 under the **Transformational Change** scenario. Under current trends however, capacity would only reach 527 MW.

The analysis indicates that, if the UK is to achieve its 8 GW local and community energy target, currently proposed shared ownership policies could play a significant role, accounting for up to 64% of new community-owned capacity by 2035.

By 2035

Steady Growth

527 MW

Community energy project development continues at a rate similar to recent years, predominantly led by established community energy groups. Access to finance and skills, land rights, grid capacity and a lack of revenue support continue to constrain the sector.

Accelarated Uptake

795 MW

There is stronger growth in community energy development, as more communities seek to share in the benefits of net zero.

This is supported by a mandatory 5% shared ownership offer introduced into energy policy by the UK government and community-ownership planning conditions introduced by Welsh Government. Most development before 2030 is of small-scale solar and behind-the-meter arrangements.

Transformational Change

1.5 GW

Significant initiatives by the UK and Welsh governments enable community energy developments to progress at pace. This is supported by a mandatory 20% shared ownership offer introduced into energy policy by the UK government, combined with targeted capacity-building support to enable more communities to develop projects. Great British Energy and Ynni Cymru help to incentivise and de-risk community ownership within commercial projects.

Our findings suggest that higher levels of community ownership could be enabled by:

01

A clear definition of ‘community energy’

Our modelling shows that growth in community energy is constrained in the near term by grid capacity. A clear definition of community energy would enable reforms to allow differentiated treatment of community energy projects in the connections pipeline.

02

Policy and regulatory frameworks

Our modelling shows that a combination of incentives, mandates and capacity building support, which the UK and Welsh governments are currently considering, could significantly increase the capacity of new and repowered energy projects owned by communities.

03

Dedicated revenue support

Access to finance and a lack of revenue support affects project viability. Our research found that a fair, stable export price for community-owned electricity would give groups the certainty needed to invest and remove barriers for new community energy groups.

04

Greater capacity building

We want more communities across the UK to be able to share in the benefits of the net zero transition. Our modelling shows that there are a significant number of organisations that could develop energy projects with the right support.

David Witherspoon
Community Energy Manager,
National Grid Electricity Distribution

National Grid Electricity Distribution

Foreword

At National Grid ED, we have long recognised the value of community energy and the vital role it plays in shaping a more inclusive, resilient and locally driven energy system.

The sector across our licensed areas is well established and, importantly, impactful, not only as a contributor to renewable generation but as a driver of wider social, environmental, and economic outcomes.

Community-led initiatives play a crucial role in advancing local flexibility, reducing demand, tackling fuel poverty and fostering public engagement with the energy transition.

These projects bring people closer to the energy system, creating lasting benefits for our future generations.

Despite this strong foundation, growth has slowed in recent years, reflecting the challenges facing the sector, including the absence of supporting policies and regulatory frameworks.

Encouragingly, the publication of the UK government's Local Power Plan marks a turning point, with up to £1 billion supporting the government's target of delivering 8 GW of local and community energy by 2030.

This builds on the Welsh Government's 1.5 GW target for locally-owned energy by 2035, and the establishment of Ynni Cymru in 2023.

Achieving even a proportion of this through community ownership would represent a substantial increase in capacity, potentially increasing it tenfold.

By testing these policies through a range of scenarios, our analysis illustrates how different approaches could influence the pace and scale of community energy deployment over the coming decade, highlighting the extent to which policy and regulatory change could shift the trajectory of growth.

As Community Energy Manager at National Grid ED, I am proud of the role we are playing to support this transition through innovation, collaboration and continued advocacy.

We are calling for a community energy definition that will enable frameworks to be established that support community-led projects to succeed.

I am particularly encouraged by the two National Grid ED-led innovation projects launched this year.

These focus on addressing complex site arrangements for local supply through GECCO and exploring how shared ownership models can be advanced through Matchmaker, both of which are important steps forward.

Community energy organisations are already preparing to scale, and there is a clear need for coordinated action across industry, government and regulators to remove barriers and create the right conditions for growth.

By continuing to work together, we can ensure that community energy can fulfil its true potential, not only contributing to the energy transition but also delivering lasting value to the communities we serve.

Introduction

What is community energy?

Community energy is when local people own, lead or take part in clean energy projects in their area. These projects can help support people facing fuel poverty, reduce demand, and bring funding and wider benefits back into local communities.

Community energy in National Grid ED's regions

There is a well-established and resilient community energy sector across National Grid ED's licence areas, comprising 170 organisations, employing 304 people and turning over £29 million. In 2024 alone, over £1.2 million was invested from community-owned generation projects into local communities.

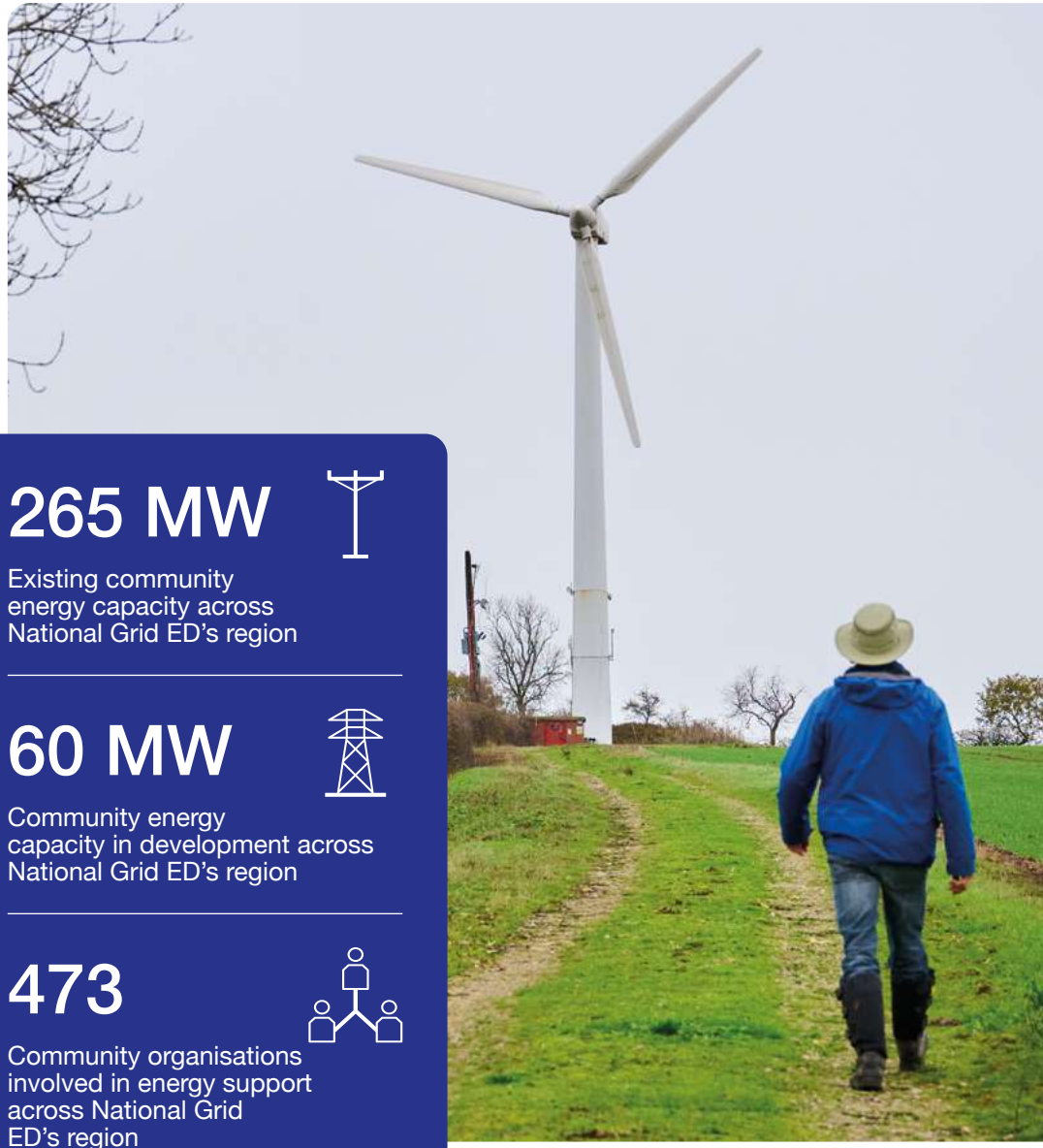
National Grid ED has long been a supporter of community energy. In 2024, we launched a programme with **Solar for Schools**, a £2.7m commitment to help schools in areas of high economic deprivation to reach net zero goals, working alongside community energy groups. Community-led projects have a vital role to play in championing the connection of renewables, as well as delivering local demand reduction and flexibility schemes. These schemes drive a range of social, environmental and economic benefits by alleviating fuel poverty, enhancing public engagement and education around energy use, and generating community funds through renewable energy projects.

Renewed ambition

Earlier this year, Great British Energy and the UK government published the **Local Power Plan** – a commitment to invest up to £1 billion of funding in community and local energy projects over the next four years. The Welsh Government has also renewed its commitment to prioritise meaningful community ownership through its National Energy Strategy, including developing Trydan Gwyrdd Cymru to "create a single national energy company to grow community and local ownership of renewables".

Alongside investment, several policies have been proposed, including developing detailed proposals on how a mandatory shared ownership offer could work, continuing work with Ofgem to enable local supply, and exploring tailored support for community energy projects looking to secure grid connections.

Meeting the UK government's target of 8 GW of local and community-owned energy by 2030 would mean ten-fold growth in current community energy capacity alone. This is a critical juncture for the community energy sector and its potential to deliver value to people and places across the country. Community energy organisations are already gearing up for this acceleration, and there is a clear need for National Grid ED to prepare to meet this renewed ambition and action.



265 MW

Existing community energy capacity across National Grid ED's region

60 MW

Community energy capacity in development across National Grid ED's region

473

Community organisations involved in energy support across National Grid ED's region

Future of Community Energy Study

In 2025, National Grid ED worked with Regen to understand the ambitions of the community energy sector, and what needs to change to realise them.

The Future of Community Energy study drew on analysis from the Community Energy State of the Sector research, the most comprehensive and inclusive review of community energy in the UK. In addition to this, insights were gained from stakeholder events and evidence gathered through interviews with community energy experts. The study explored the key trends, developments and innovations that will likely shape the future of community energy.

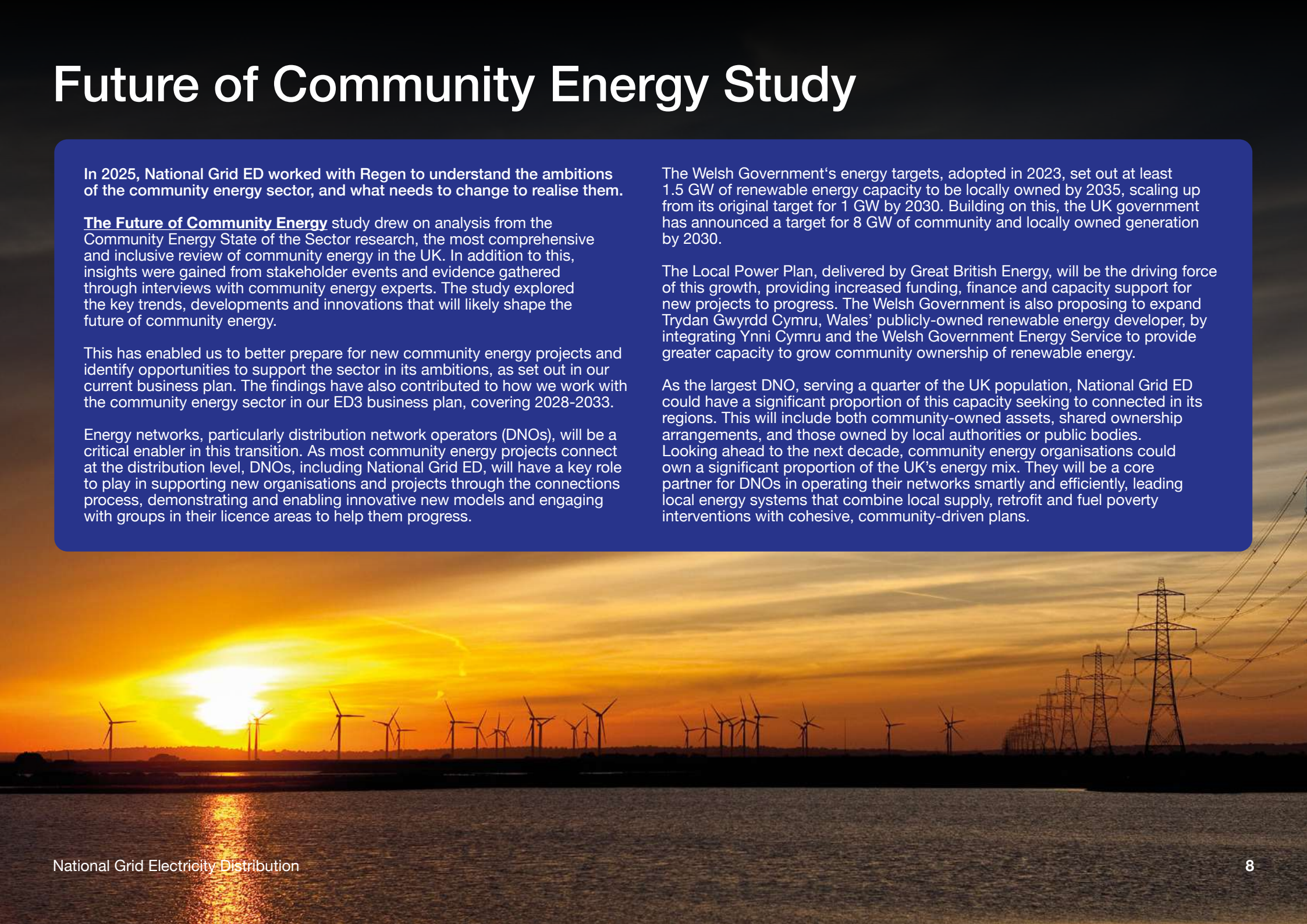
This has enabled us to better prepare for new community energy projects and identify opportunities to support the sector in its ambitions, as set out in our current business plan. The findings have also contributed to how we work with the community energy sector in our ED3 business plan, covering 2028-2033.

Energy networks, particularly distribution network operators (DNOs), will be a critical enabler in this transition. As most community energy projects connect at the distribution level, DNOs, including National Grid ED, will have a key role to play in supporting new organisations and projects through the connections process, demonstrating and enabling innovative new models and engaging with groups in their licence areas to help them progress.

The Welsh Government's energy targets, adopted in 2023, set out at least 1.5 GW of renewable energy capacity to be locally owned by 2035, scaling up from its original target for 1 GW by 2030. Building on this, the UK government has announced a target for 8 GW of community and locally owned generation by 2030.

The Local Power Plan, delivered by Great British Energy, will be the driving force of this growth, providing increased funding, finance and capacity support for new projects to progress. The Welsh Government is also proposing to expand Trydan Gwyrdd Cymru, Wales' publicly-owned renewable energy developer, by integrating Ynni Cymru and the Welsh Government Energy Service to provide greater capacity to grow community ownership of renewable energy.

As the largest DNO, serving a quarter of the UK population, National Grid ED could have a significant proportion of this capacity seeking to connected in its regions. This will include both community-owned assets, shared ownership arrangements, and those owned by local authorities or public bodies. Looking ahead to the next decade, community energy organisations could own a significant proportion of the UK's energy mix. They will be a core partner for DNOs in operating their networks smartly and efficiently, leading local energy systems that combine local supply, retrofit and fuel poverty interventions with cohesive, community-driven plans.



This report aims to explore potential future growth scenarios of community-owned energy

The purpose of this study is to explore the key factors influencing when and where community energy projects are likely to develop.

It aims to build on **The Future of Community Energy** report to model how strategic initiatives, such as repowering, shared ownership and targeted capacity building, can help accelerate community energy activity and distribute its associated benefits in a just way among communities.

This report explores three possible future scenarios with varying levels and types of changes across policy, regulation and market conditions to anticipate the uptake of community energy across our licence areas.

Distribution Future Energy Scenarios

National Grid ED is committed to supporting the UK's target of net zero by 2050. Achieving a decarbonised electricity system requires energy networks to evolve and adapt to changing customer requirements, system needs and national energy policy. We are doing this by taking a proactive and long-term approach to strategic planning. The Distribution Future Energy Scenarios (DFES) identify how customers will use our energy in the future.

Our DFES outlines the range of credible futures for the growth of the distribution network, broadly aligning with the National Energy System Operator's (NESO's) Future Energy Scenarios (FES) framework. It is the first stage of our network investment planning process that helps us to develop strategic reinforcement solutions to solve network constraints.

Community Energy Scenarios

By applying the DFES methodology to explore potential scenarios of community energy activity, we can improve our understanding of the different factors that can influence the uptake of community-owned renewables, as well as how and where they are more likely to occur. This aids our forward planning, particularly in light of our upcoming 2028-2033 ED3 business plan, to ensure that the most appropriate support is available in the right place at the right time.

To uncover these insights, a range of stakeholder engagement, research and analysis was conducted by Regen. This included:

- Analysing 'Community Energy State of the Sector' data, the most comprehensive survey of community energy organisations in the UK.
- Identifying operational and in-development community energy projects in National Grid ED's connections data, correct as of March 2026.
- Compiling scenario projections from the 2025 National Grid ED DFES for grid-connected rooftop solar, ground-mounted solar, onshore wind and hydropower.
- Identifying the location of existing community energy organisations and conducting an opportunity assessment for new activity.
- Modelling assumptions on the factors that influence the uptake of community-owned energy generation.

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Opportunities for community energy

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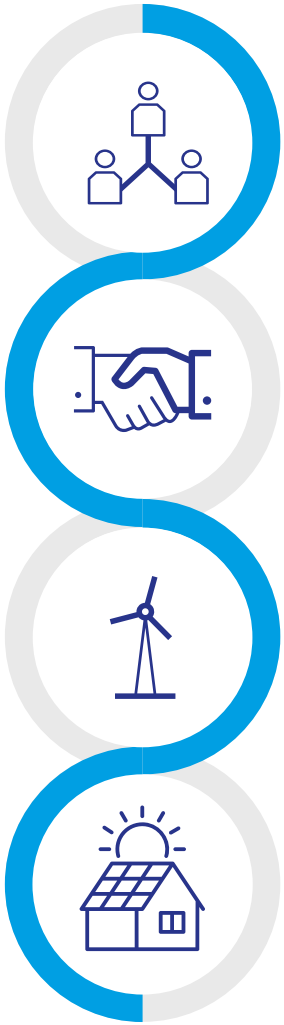
Opportunities for community energy

Within the DFES, future capacity projections are examined on a spatial basis to allow for network planning to understand where upgrades and reinforcements are most likely to be needed.

Quantifying how much of this capacity could be community-owned requires additional considerations.

Several factors will influence the ability of the community energy sector to scale up to meet UK and Welsh Government targets and, in particular, to deliver on the Local Power Plan's vision for "every community in the UK" to be able to own a renewable energy project.

These factors include:



01 Existing community energy activity

Organisations that have existing knowledge, skills and resources, such as those that have already developed a renewable energy generation project, are most readily placed to lead new projects. While the DFES models new renewable energy capacity, it does not provide a view of community ownership. This analysis aims to capture existing and future community energy activity to ensure it is acknowledged within our future network and business planning.

02 Shared ownership

Shared ownership presents opportunities for communities to partner with commercial developers to own a stake in a renewable energy project without having to lead the development themselves. Targeted engagement, support and potential government mandates can increase the number of communities able to take up shared ownership stakes in generation projects, retaining the benefits of these developments within local areas.

03 Repowering

When an existing generation project seeks to extend its operational life by repowering, communities can be given the opportunity to provide feedback and engage in new ownership discussions.

04 Future capacity building

Understanding and building capacity among communities is crucial to ensuring a just energy transition that provides every community with the opportunity for ownership of energy assets.

01
Existing community energy activity

How are communities involved in energy projects?

Communities get involved in renewable energy generation projects by coming together to develop, own or invest in local energy schemes. They often work collaboratively or in partnership with local authorities or developers.

The generation projects are typically rooftop solar PV, ground-mounted solar PV, onshore wind, hydropower and low-carbon heat projects. Many organisations also offer energy advice services, supporting vulnerable households to access services and improve their quality of life.

Current state of community energy

There are 170 existing community energy organisations across National Grid ED's regions, employing 304 paid staff (FTE) and with 1,198 volunteers. Many of these organisations established themselves when financial and political conditions were favourable for new generation projects, with community-owned generation capacity growing by 37% a year between 2013 and 2017 when the Feed-in Tariff (FiT) was available.

These organisations vary significantly in terms of organisational structure and capacity. While, on average, each group in National Grid ED's region has two full-time paid staff, the reality is that nearly half of all groups have no full-time staff, while some groups have as many as 32 full-time staff.

Barriers to increasing community energy activity

Despite widespread support, community energy faces significant barriers that are slowing or stopping projects. These include limited and uncertain funding routes, complex regulations, planning challenges, grid connection costs and timelines, limited volunteer capacity and skills gaps. Investment across the sector has fallen from £157m in 2023 to £53m in 2025, and many volunteer-led groups are struggling to keep going.

Without a clear definition of community energy and differentiated treatment within the connections process, groups struggle to meet the same requirements as commercial projects, which can affect project viability. These barriers also limit the ability of groups to expand without significant time, energy and financial resources.

The future of community energy

Established community energy groups are most likely to be able to respond to the renewed ambition from the UK and Welsh governments. Many already have projects in development, including Plymouth Energy Community's 13 MW **Chelson Meadow project** and Big Solar Co-op's 3.5 MW **Whiteborough Solar Park**.

However, these groups will need targeted support and a clearer route to market for future projects.

02 Shared ownership

What is shared ownership?

Shared ownership is an umbrella term for different business models that involve a non-profit community organisation owning a part of a renewable energy development, alongside a commercial developer. There are three main models currently being employed: split ownership, shared revenue and joint venture. There is more about shared ownership in **The Future of Community Energy** report.

Current state of shared ownership

The Welsh Government expects all new renewable energy projects in Wales to include an element of local or shared ownership. As of 2024, c.1 GW of locally owned capacity has been delivered – two thirds of the Welsh Government's 1.5 GW target by 2035.

There has been renewed interest in shared ownership within the UK government, having published a **working paper** exploring whether a mandatory approach should be taken to the shared ownership of renewable energy generation infrastructure. Great British Energy have also been given a remit to promote shared ownership as a core function, indicating a strong future potential for communities to take up shared ownership offers.

In National Grid ED's region, eight organisations have reported being currently involved in shared ownership projects, with a further 21 indicating interest in being involved in the future.

Barriers to shared ownership

However, progress is constrained by several barriers, including: a lack of proven business models; inadequate templates or clear guidance for communities and developers; limited incentives or mandates for developers; complex grid and metering arrangements, particularly for split ownership sites; and wider market challenges such as high interest rates, supply chain costs and differing risk appetites. Uptake is also limited as shared ownership is not a material consideration in planning, grid connection reform or route-to-market options.

The future of shared ownership

Looking ahead, increasing shared ownership will require clearer policy direction and stronger frameworks, capacity building support for communities to take on shared ownership, the development of standardised legal templates and better guidance, improved access to finance, and stronger collaboration between communities, developers and network operators.

To support this, National Grid ED are exploring how to provide tailored support for shared ownership schemes, including through the innovation project **Matchmaker** by exploring collaboration opportunities between stakeholders, and developing clearer connection processes.

03 Repowering

What is repowering?

Repowering refers to the process of replacing energy infrastructure, such as wind turbines, at existing renewable energy sites with newer technology. In many cases, this improves the energy output of the site.

Repowering allows new infrastructure to be built on the same site. To do this, land rights may need to be renegotiated, and new grid connections may need to be sought if the overall output of the site is set to increase. Many community-owned projects are likely to be suitable for repowering, while many commercial projects may seek to engage communities in new ownership discussions.

Current state of repowering

Repowering is becoming increasingly important, especially in relation to wind assets, with more than half of onshore wind capacity across Great Britain facing end-of-life decisions by 2035.

For communities, repowering presents an opportunity to improve community involvement. Existing community experiences of the site can allow developers to reflect on lessons learned, improve project and site design, maximise social value, progress best practices and revisit commitments to community benefit or shared ownership.

Barriers to repowering

There are several key barriers to repowering, with the main challenges including: planning requirements; projects being treated as new developments; land and environmental impacts; challenges in securing grid connections for sites with higher capacities; and risks such as increased land use or limited community participation in early decision making.

The future of repowering

Looking forward, addressing the key barriers is essential to progressing repowering in line with the end-of-life timelines of existing projects. Repowering projects with community ownership is a great opportunity for community energy groups, as these projects may be able to be fast-tracked through the connections process.

There is a potential role for Great British Energy and Ynni Cymru to help secure meaningful ownership stakes in repowered wind farms, particularly in cases where access to finance, community capacity or risk appetite present barriers to community participation.

Read Regen's **'A Second Wind: Unleashing the potential for repowering'** report to find out more.

04
Future capacity building

Why is capacity building needed?

Community energy isn't always accessible to all communities. Financial barriers can make it challenging for less affluent communities to invest in energy projects, and those with less time or expertise may struggle to engage with or navigate complex technical, regulatory, financial and legal processes. Capacity building is the route through which communities are supported to build expertise, engage locally and develop the skills to lead energy projects.

Current state of capacity building

Great British Energy has set out a vision that "every community in the UK will have the opportunity to own a local energy project by 2030". This reflects Welsh Government's policy to "ensure that Welsh communities really benefit from renewable energy in Wales".

The UK government's Local Net Zero Hubs and the Welsh Government Energy Service currently deliver regional capacity-building programmes, while individual local authorities support the community energy sector through capacity building, site identification, funding and off-take arrangements for local generators. At National Grid ED, our community energy events and guidance seek to support the sector and make the project development process easier to navigate.

Barriers to capacity building

Building capacity takes time, yet many capacity-building programmes are limited by annual funding cycles. These can often be inflexible and struggle to be genuinely community-led. Capacity building faces other challenges, including: a lack of foundational awareness of community energy; limited access to funding and resources; fragmented approaches to development; and a lack of data to inform targeting of capacity-building programmes.

Building future capacity

To increase the number of communities that are able to participate in community energy and deliver on Great British Energy's vision, outreach and engagement is needed across the UK. However, barriers to community energy also need to be overcome, to make the process easier for communities with less capacity.

If this happens, we could see more community energy activity in marginalised and socially deprived communities, with established community energy organisations acting as partners to bring projects and benefits to nearby areas that lack their own capacity at present. Some more established groups are already lowering the financial barrier to participation, by offering £1 share offers or letting people invest in pairs.

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Community Energy Scenarios

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Building on the DFES

Our energy system is going through an unprecedented change. Achieving a decarbonised electricity system by 2030 and a net zero economy by 2050 requires energy networks to evolve and adapt to changing customer requirements, system needs and national energy policy. With Wales's first Climate and Nature Action Plan now setting a new target to be net zero by 2040, these changes need to happen at pace.

We use the DFES to conduct a detailed review of how our network could be impacted under a range of possible future pathways. This helps us to develop strategic reinforcement solutions to solve network constraints and publicly signpost potential system flexibility needs. The DFES analysis will be directly feeding into the planning for our next price control period, RIIO-ED3.

The DFES models four scenarios representing different, credible ways to decarbonise our energy system. Three of these scenarios are compliant with the UK government's net zero emissions target for 2050. Each of these scenarios meets this target in a different way, defined by varying degrees of electrification and the use of hydrogen, as well as varying levels of demand-side flexibility. The fourth scenario does not achieve net zero by 2050 and continues the use of natural gas for electricity generation.

For this analysis, we have used the Holistic Transition scenario. This scenario has the highest level of renewable energy deployment and consumer engagement and has been used as the basis for NESO's transition Regional Energy Strategic Plan (tRESP). Ahead of ED3, Ofgem have asked DNOs to consider a sensitivity analysis on the Holistic Transition scenario. This will, therefore, also be relevant to these Community Energy Scenario projections.

Core DFES assumptions have been upheld in this analysis, including:

- **Development timelines:** Average time taken for renewable projects to connect from applying for planning permission. This is broken down by technology.
- **Pipeline connection years:** The year each site is modelled to connect is based on site-specific evidence within their Gate 2 connection offer.
- **Repowering:** Baseline sites that are 5 MW or larger are modelled to repower at the end of their operational life with +50% capacity for large-scale solar and +200% capacity for onshore wind, reflecting the latest technology developments.
- **Renewable resource availability:** Projections for generation technologies are informed by spatial resource assessments considering solar irradiance, wind speed, protected areas and land constraints.

Identifying community activity

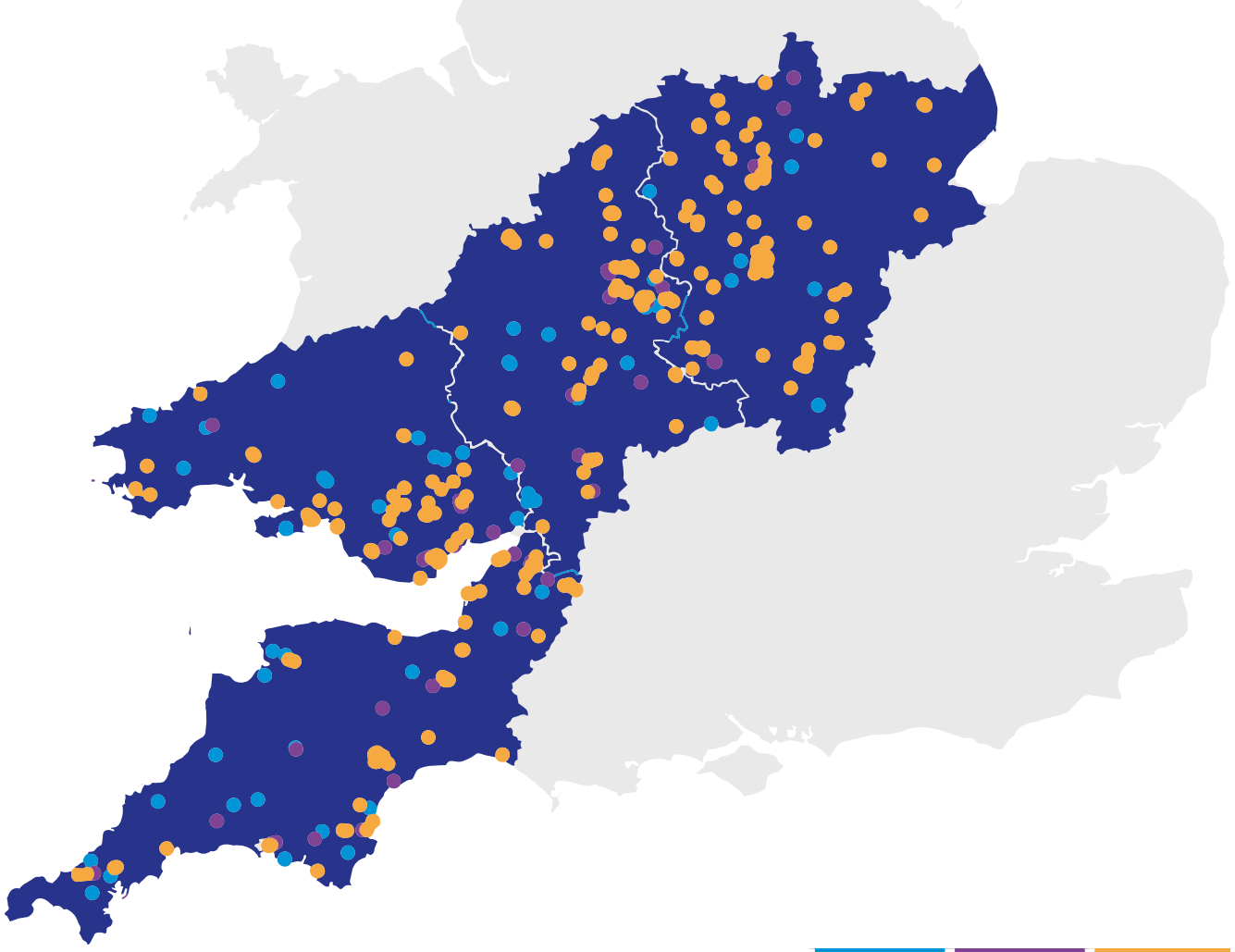
To create spatial projections for potential future community energy scenarios, we identified the location, type, level of capacity and desire for growth of community-based organisations.

These factors help inform where communities might already have the drive and resources to develop new community energy projects and where communities might need additional targeted support to undertake community energy development for the first time.

There are over 400 community-based, energy-related organisations across National Grid ED's licensed areas.

Some of these are directly involved in community energy, some offer energy advice services, and others offer more general community support. This analysis was based on the **2025 Community Energy State of the Sector Report** and **National Grid ED's Horizon Scan Research Project 2023**.

Organisations listed within these datasets were analysed and separated into three tiers based on how directly they were involved in community energy generation projects, their level of capacity and their desire to scale up.



Tier 1
These organisations are currently directly involved in community-owned generation projects.

Tier 2
These organisations are involved in energy support services and have identified capacity for growth.

Tier 3
These organisations are centred in their communities but are not directly involved in energy or have not identified any additional capacity for growth.

	Tier 1	Tier 2	Tier 3
East Midlands	10	7	84
South Wales	26	11	58
South West	32	20	57
West Midlands	10	7	84

Community Energy Scenarios

We have defined three Community Energy Scenarios to represent how varying levels and types of initiatives can influence the uptake of community energy by 2035.

This considers the policy, regulatory and market environment that community energy groups operate in, and the role of Great British Energy and Ynni Cymru in supporting the community energy sector, eliminating hurdles facing communities and maximising the existing pipeline of projects across the UK. As well as an increase in the capacity of community energy projects, the scenarios model an increase in the number of groups developing these projects, including in previously underserved communities.

01 Steady Growth

Community energy project development continues at a rate similar to recent years, predominantly led by established community energy groups. Access to finance and skills, land rights, grid capacity and a lack of revenue support continue to constrain the sector.

02 Accelerated Uptake

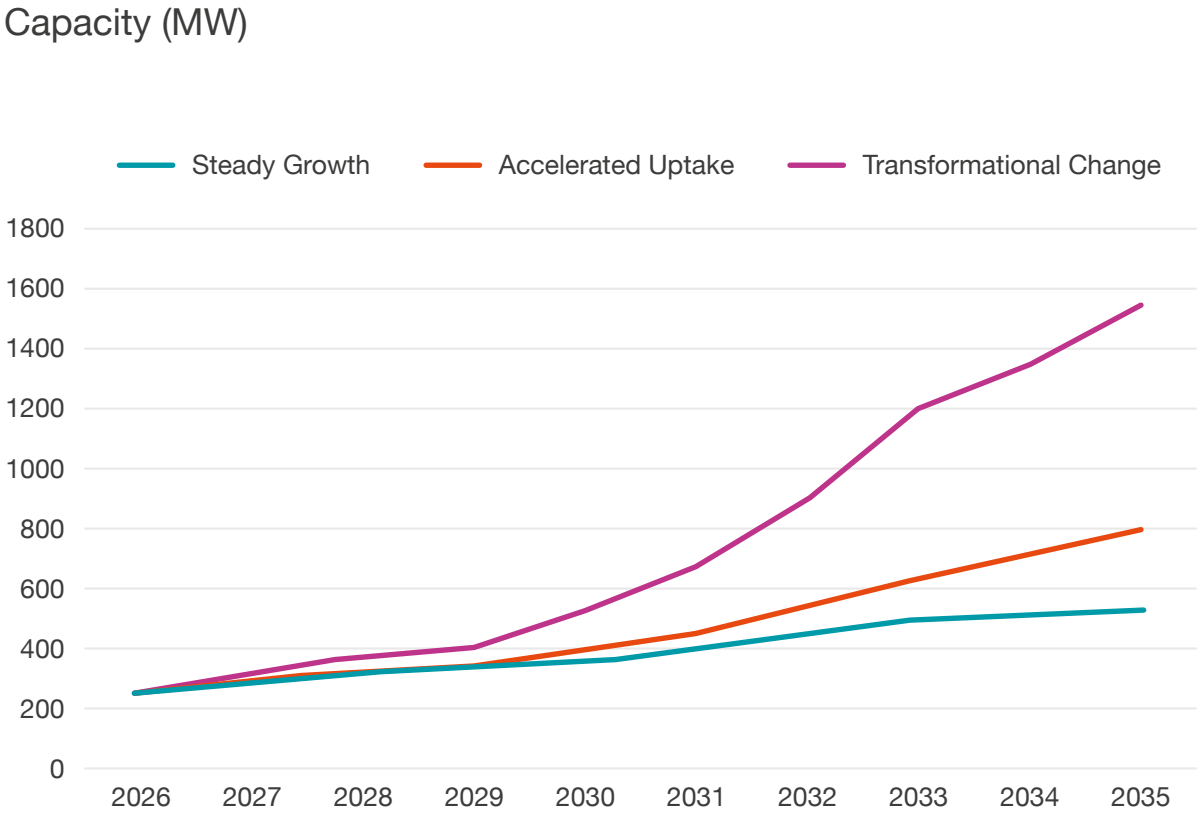
There is stronger growth in community energy development, as more communities seek to share in the benefits of net zero. This is supported by a mandatory 5% shared ownership offer introduced into energy policy by the UK government and community-ownership planning conditions introduced by Welsh Government. Most development before 2030 is of small-scale solar and behind-the-meter arrangements.

03 Transformational Change

Significant interventions by the UK and Welsh governments enable community energy developments to progress at pace. This is supported by a mandatory 20% shared ownership offer introduced into energy policy by the UK government, combined with targeted capacity-building support to enable more communities to develop projects. Great British Energy and Ynni Cymru help to incentivise and de-risk community ownership within commercial projects.

Results

Distribution-connected, community-owned generation scenarios in National Grid ED's licence areas



All three Community Energy Scenarios demonstrate an increase in community-owned generation capacity between now and 2035. This includes 60 MW of projects that have accepted grid connection offers and are set to connect in the next few years.

The **Transformational Change** scenario reaches 516 MW of community-owned generation by 2030 and 1.54 GW by 2035. This is predominantly due to the introduction of a 20% mandatory shared ownership offer modelled across all new renewable energy projects, and major short-term investments by Great British Energy to secure shares in projects that can be sold on to communities. Shared ownership capacity has been calculated as the proportion of the overall project that is owned by the community.

However, under current trends in the **Steady Growth** scenario, capacity only reaches 527 MW by 2035, showing that the sector will not scale quickly enough without major changes to policy, regulation and market environments.

182 MW - 869 MW

New community-owned capacity connected in National Grid ED's region during the ED3 period (2028 – 2033)

Steady Growth

In the Steady Growth scenario:

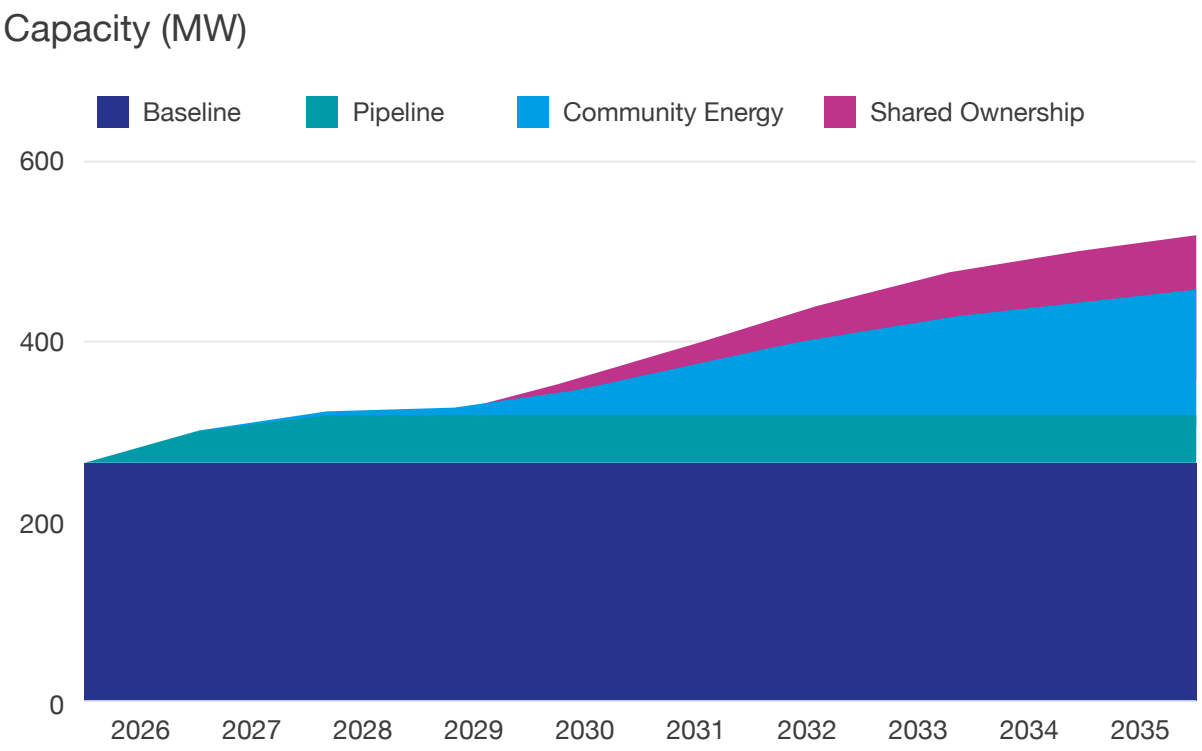
- All community energy sites with connection offers are modelled to connect between 2027 and 2029, including 39 MW of shared ownership projects.
- All existing and suitable community-owned projects are modelled to repower in accordance with the DFES assumptions.
- Community energy development is modelled to continue at a rate similar to recent years, reflecting the challenges currently constraining the sector, reaching 2.9% of all distribution-connected capacity by 2035.
- There is an uptick in shared ownership capacity, bringing National Grid ED's regions in line with the current uptake of shared ownership in Scotland, where shared ownership of renewable energy projects is more common.

Despite the potential role that community energy has to play in the UK's green transition, current policy and regulatory frameworks hinder this from being fully realised in the Steady Growth scenario.

Most new capacity within the modelled timeline is in line with the current connections queue, which has been significantly reformed from a 'first come, first served' approach to a 'first ready and first needed' approach, which more accurately reflects the deliverability of projects. Projects below 5 MW are not subject to a Transmission Impact Assessment (TIA), meaning they can progress quickly and are not subject to delays at the transmission level. However, new larger scale community energy projects may get delayed while awaiting transmission reinforcement.

Reflecting these challenges, all new development before 2030 (beyond the known pipeline) is small-scale solar. Behind-the-meter and local supply arrangements will also be particularly important to the community energy sector.

Distribution-connected, community-owned generation capacity under the Steady Growth scenario



365 MW
Connected by 2030

527 MW
Connected by 2035

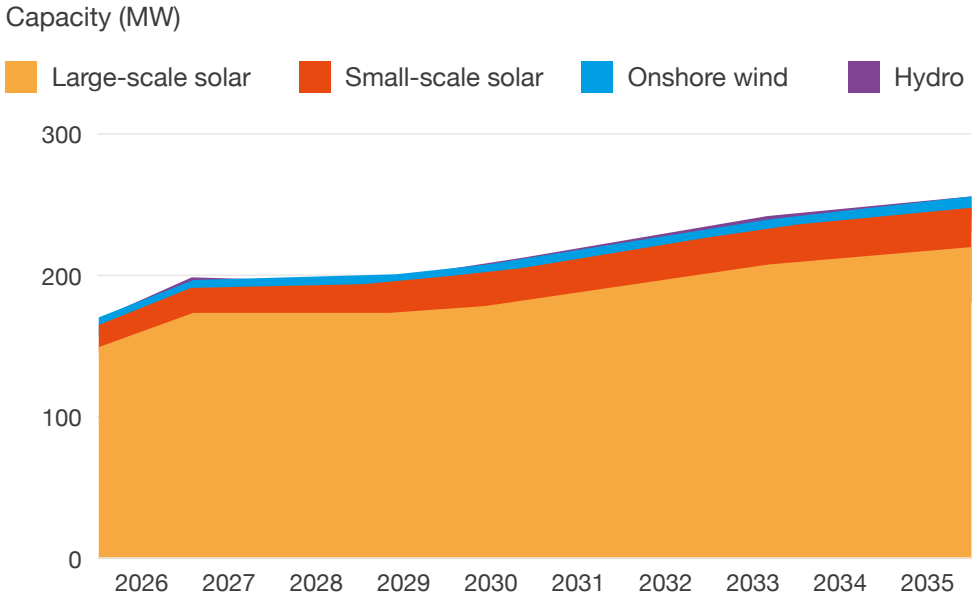
182 MW
Connected during ED3 (2028 – 2033)

Steady Growth

South West

- Under **Steady Growth**, community-owned energy capacity in the South West licence area increases from 172 MW in 2026 to 256 MW by 2035.
- The South West has an established foundation of community energy activity. The region is also seeing continued growth in shared ownership models, including three large-scale solar projects currently under development.
- The South West possesses some of the strongest solar generation potential in the UK, creating substantial opportunities for expanding both ground-mounted and rooftop solar.
- However, the deployment of larger community energy schemes is modelled to be constrained in the near term, primarily due to transmission infrastructure limitations and the existing Gate 2 connection queue.

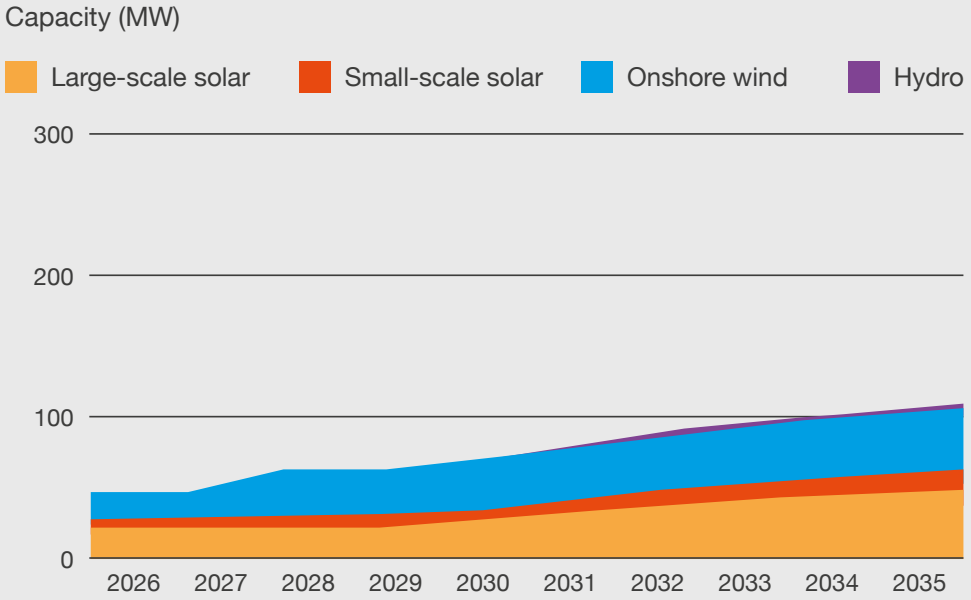
Distribution-connected, community-owned generation capacity in the South West under the Steady Growth scenario



South Wales

- Under **Steady Growth**, community-owned energy capacity in the South Wales licence area increases from 47 MW in 2026 to 113 MW by 2035.
- Onshore wind is the dominant technology, accounting for 50% of all installed community energy capacity in the region. This reflects strong wind resource and consistent development over the last 10 years, while UK government policy over the same timeframe constrained development in England.
- There is currently 20 MW of community-owned and shared ownership onshore wind capacity with connection offers in South and Mid Wales. These are all modelled to connect by 2028.
- Most developments above 5 MW are not modelled to connect until after 2030, primarily due to transmission infrastructure limitations and the existing Gate 2 connection queue.

Distribution-connected, community-owned generation capacity in South and Mid Wales under the Steady Growth scenario

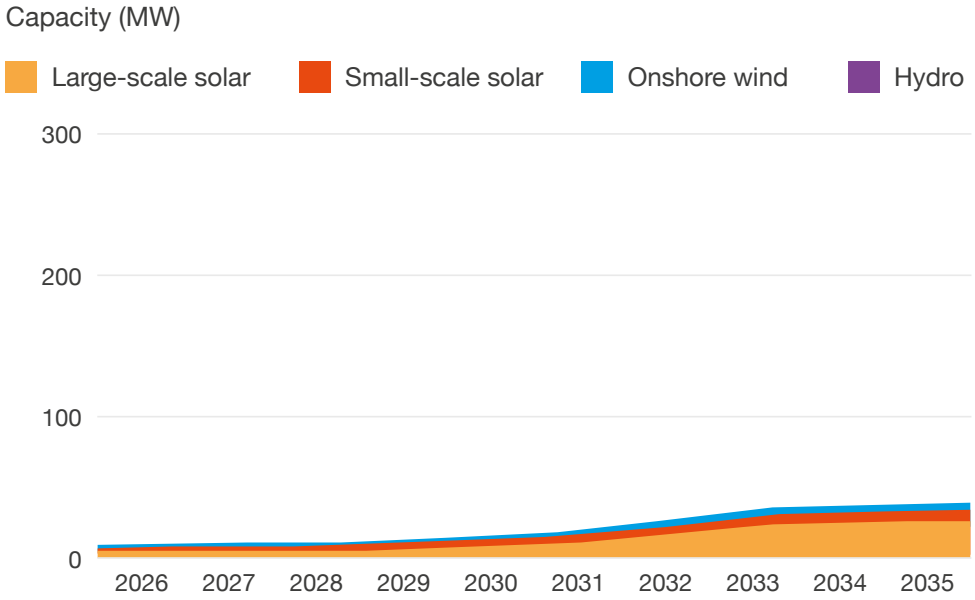


Steady Growth

East Midlands

- Under **Steady Growth**, community-owned energy capacity in the East Midlands licence area increases from 8 MW in 2026 to 38 MW by 2035.
- The East Midlands currently has the lowest operational capacity of community-owned energy projects among National Grid ED's licence areas.
- Modelling under the DFES Holistic Transition scenario shows the East Midlands has considerable potential for future renewable energy deployment. This drives some new community-owned solar capacity in the region, even under **Steady Growth**.
- Rooftop solar forms a major part of the East Midlands' community-owned capacity, owing to the major population centres in the East Midlands licence area. On average, these developments are c.50 - 150 kW each.

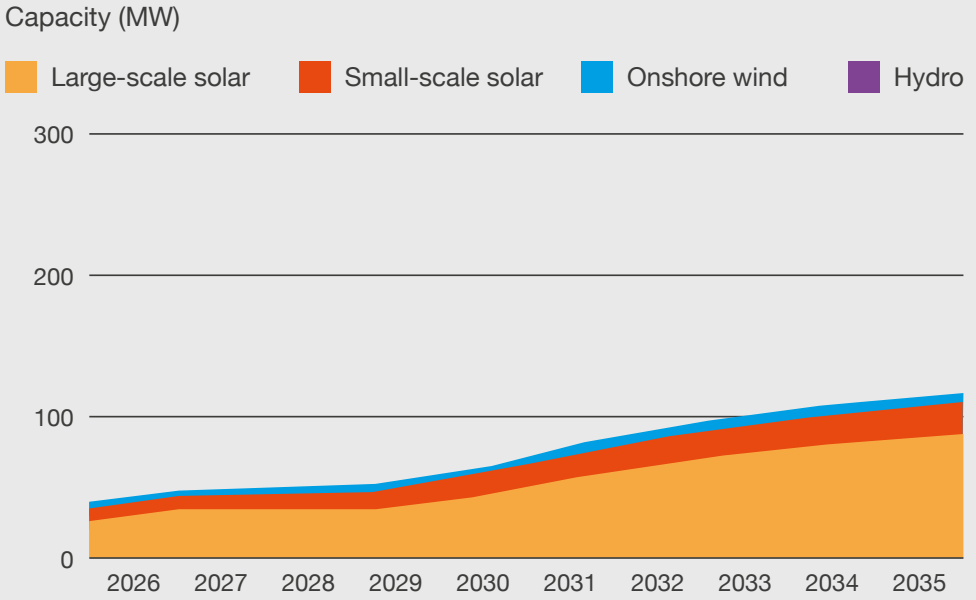
Distribution-connected, community-owned generation capacity in the East Midlands under the Steady Growth scenario



West Midlands

- Under **Steady Growth**, community-owned energy capacity in the West Midlands licence area increases from 39 MW in 2026 to 117 MW by 2035
- Shared ownership is projected to form a large part of this growth, contributing 26% of all new capacity in the West Midlands by 2035. This includes the 40 MW Lightwood Solar Farm, which has a 20% shared ownership arrangement with Gloucestershire Community Energy Co-operative, and is expected to connect in 2027.
- Rooftop solar forms a major part of the West Midlands' community-owned capacity, owing to the major population centres in the licence area.
- In contrast, growth in community-owned onshore wind capacity is expected to be more limited, reflecting the long-term impacts of the previous UK government's policy in England.

Distribution-connected, community-owned generation capacity in the West Midlands under the Steady Growth scenario



Accelerated Uptake

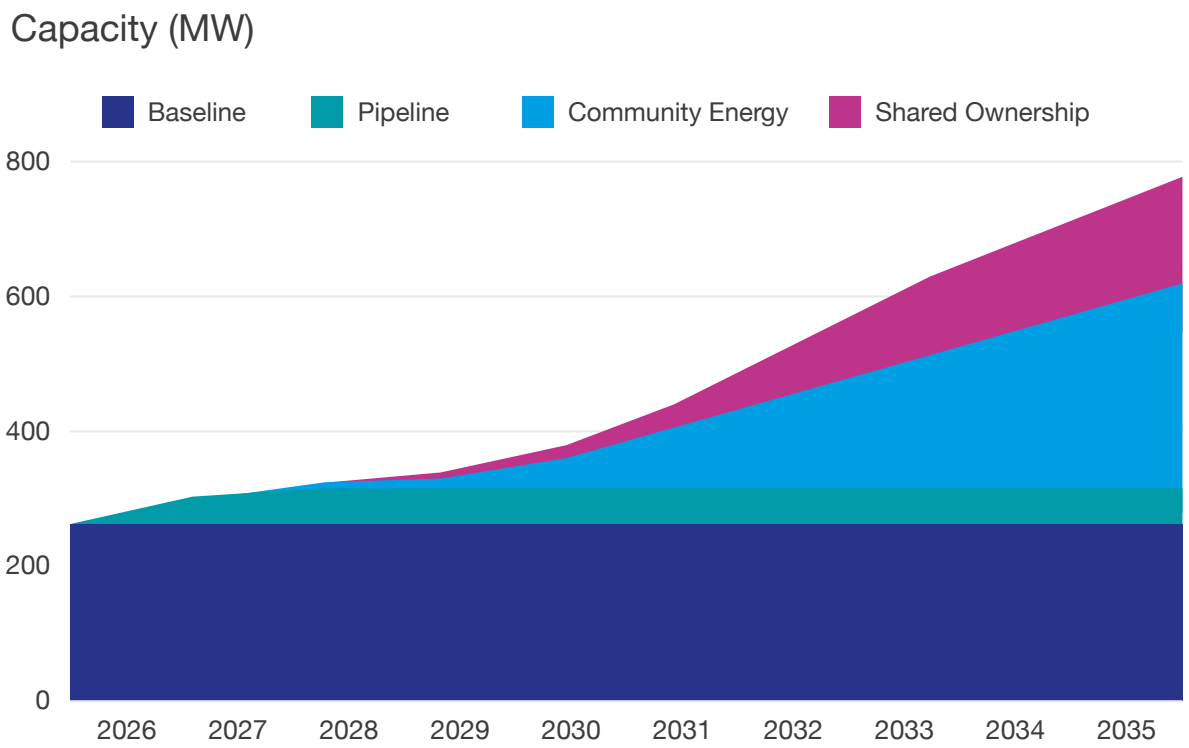
In the Accelerated Uptake scenario:

- All community energy sites with connection offers are modelled to connect between 2027 and 2029, including 39 MW of shared ownership projects.
- All existing and suitable community-owned projects are modelled to repower in accordance with the DFES assumptions.
- Community energy development accelerates, modelled to reflect FiT uptake levels, reaching 4% of all distribution-connected capacity by 2035.
- A 5% shared ownership mandate is modelled to be introduced for all new and repowered renewable energy projects from 2028, with community uptake increasing over time.
- A higher proportion of projects are modelled to offer shared ownership in Wales, based on Welsh Government's proposed planning reforms.

Nearly one third of all new capacity connecting under Accelerated Uptake is in the form of shared ownership. The UK government is currently exploring introducing a mandatory shared ownership offer within the Infrastructure Act 2015, which could be set at 5% under current legislation. Welsh Government has also proposed requiring a minimum community-ownership stake of between 15% and 25%, or equivalent community benefit fund, for projects over 10 MW as a key condition of consent. However, most large-scale development connecting by 2035 have already received planning permission, limiting new shared ownership projects in the near term. Clear and successful support mechanisms will be needed to build community capacity to participate in shared ownership.

Nearly 30% of new capacity by 2030 is from small-scale solar installations, which are quicker to build and connect. This falls to 11% by 2035, as large-scale community-owned solar projects dominate new connections.

Distribution-connected, community-owned generation capacity under the Accelerated Uptake scenario



381 MW
Connected by 2030

795 MW
Connected by 2035

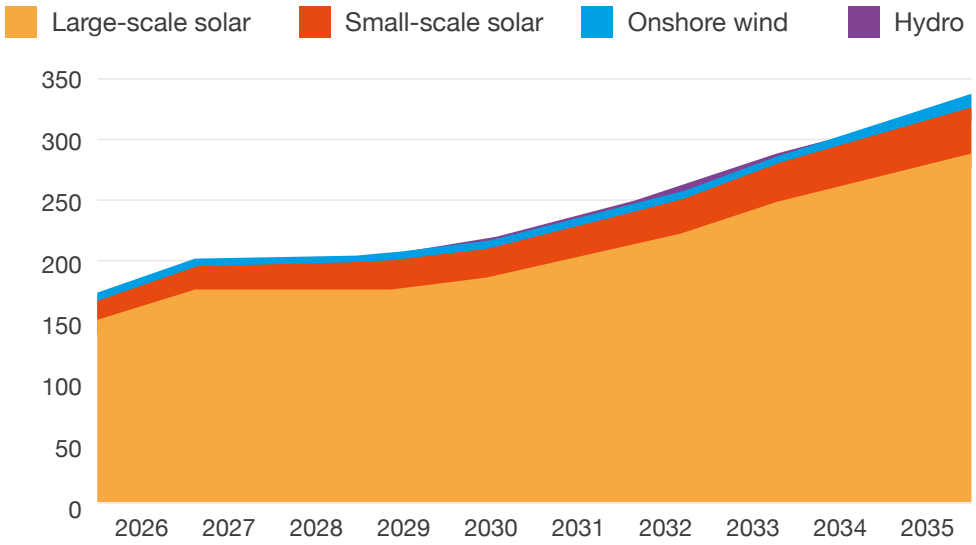
335 MW
Connected during ED3 (2028 – 2033)

Accelerated Uptake

South West

- Under **Accelerated Uptake**, community-owned energy capacity in the South West licence area increases from 172 MW in 2026 to 336 MW by 2035.
- The South West benefits from a substantial existing base of community-owned solar generation and is modelled to double its connected capacity by 2035, exceeding other licence areas by more than 100 MW.
- Shared ownership contributes 39% of all new capacity in this time period, including 25 MW of shared ownership projects with grid connection offers, expected to connect in 2027.
- In contrast, growth in community-owned onshore wind capacity is expected to be more limited, reflecting the long-term impacts of the previous UK government's policy in England.

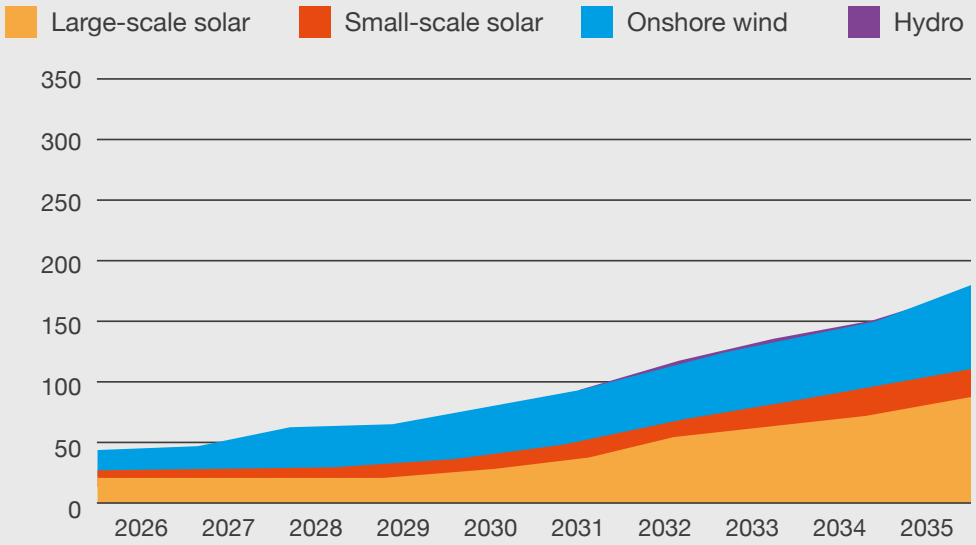
Distribution-connected, community-owned generation capacity in the South West under the Accelerated Uptake scenario



South Wales

- Under **Accelerated Uptake**, community-owned energy capacity in the South Wales licence area increases from 47 MW in 2026 to 181 MW by 2035.
- South and Mid Wales has substantial potential for future community energy growth under a supportive policy environment.
- In the near term, growth is expected to be led by new onshore wind projects and small-scale solar developments. There are currently 15 MW of onshore wind projects with connection agreements.
- Community-led development remains the dominant delivery model (75% of all new capacity by 2035), led by established community energy groups. Shared ownership makes up the other 25%, as this scenario models the introduction of shared ownership, or equivalent community benefit, as a condition of consent for Welsh projects over 10 MW.

Distribution-connected, community-owned generation capacity in South and Mid Wales under the Accelerated Uptake scenario

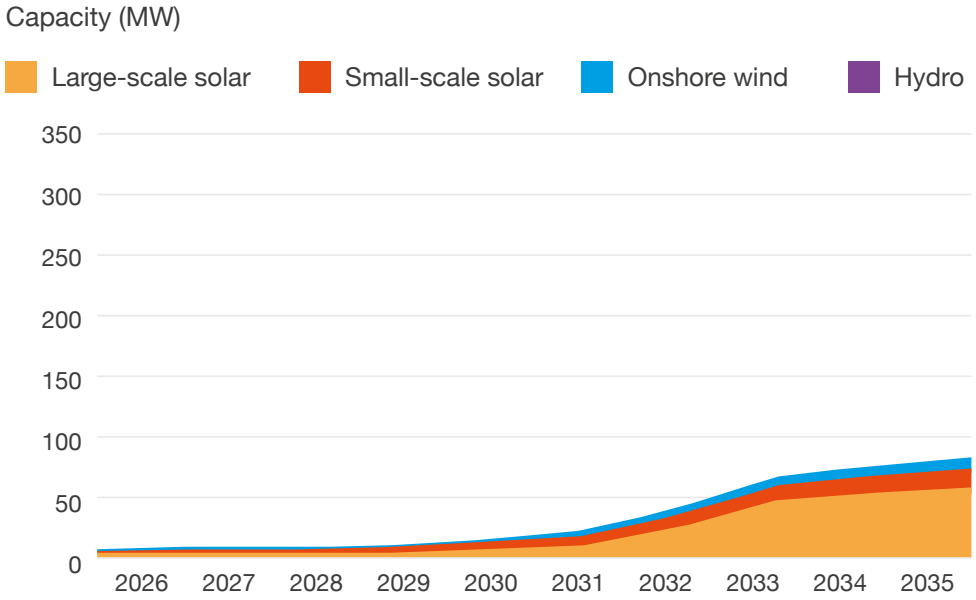


Accelerated Uptake

East Midlands

- Under **Accelerated Uptake**, community-owned energy capacity in the East Midlands licence area increases from 8 MW in 2026 to 83 MW by 2035.
- Growth in community energy capacity before 2030 is dominated by small-scale solar installations across the region's major urban centres.
- After 2030, projections indicate a transition towards large-scale solar developments, reflecting the region's strong solar resource potential.
- However, the pace of development is constrained by the relatively limited community energy sector in the Midlands, which has a lower concentration of both Tier 1 organisations (those already developing community energy projects) and Tier 2 organisations (those involved in energy support that have identified capacity for growth) than other licence areas.

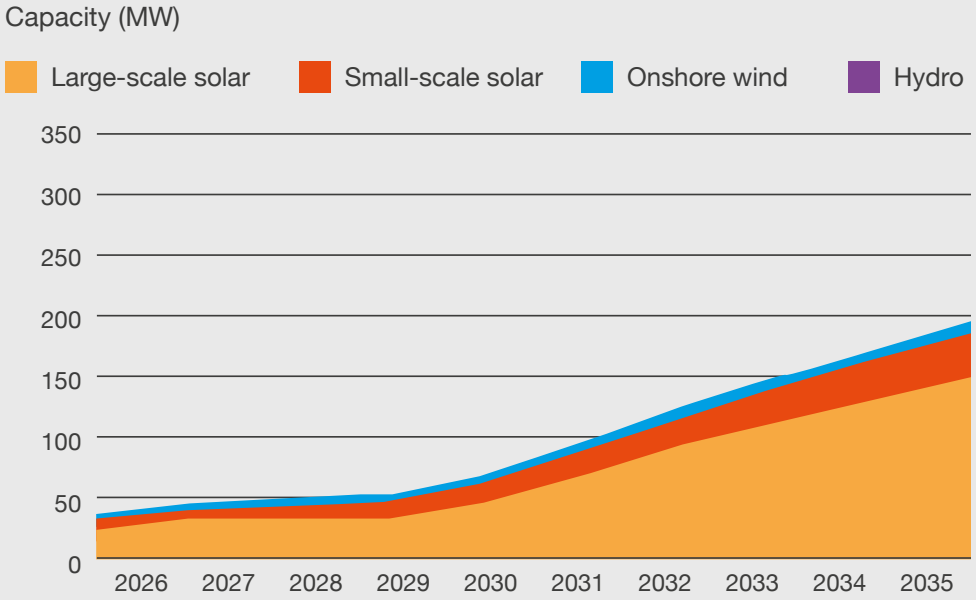
Distribution-connected, community-owned generation capacity in the East Midlands under the Accelerated Uptake scenario



West Midlands

- Under **Accelerated Uptake**, community-owned energy capacity in the West Midlands licence area increases from 39 MW in 2026 to 196 MW by 2035.
- Growth in community energy capacity before 2030 is dominated by small-scale solar installations across the region's major urban centres.
- Looking beyond 2030, the focus of new capacity shifts towards large-scale solar developments, as the electricity network is reinforced.
- However, the pace of development is constrained by the relatively limited community energy sector in the Midlands, which has a lower concentration of both Tier 1 organisations (those already developing community energy projects) and Tier 2 organisations (those involved in energy support that have identified capacity for growth) than other licence areas.

Distribution-connected, community-owned generation capacity in the West Midlands under the Accelerated Uptake scenario



Transformational Change

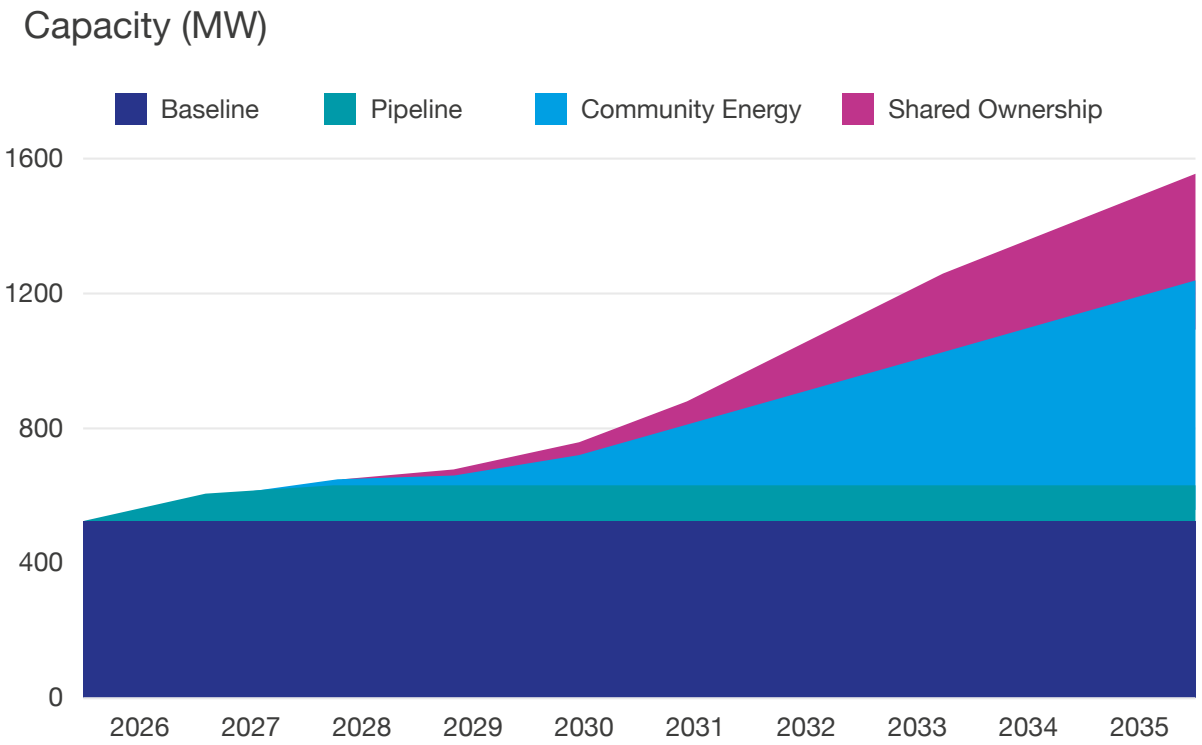
In the Transformational Change scenario:

- All community energy sites with connection offers are modelled to connect between 2027 and 2029, including 39 MW of shared ownership projects.
- All existing and suitable community-owned projects are modelled to repower in accordance with the DFES assumptions.
- There is a step change in the rate of development of community energy projects, reaching 7% of all distribution-connected capacity by 2035.
- A 20% shared ownership mandate is modelled to be introduced for all new and repowered renewable energy projects from 2028, reflecting calls from Community Energy England, Wales and Scotland. Community uptake is modelled to increase over time.
- Targeted capacity building brings opportunities for community energy and shared ownership to new communities across National Grid ED's region.

Nearly two thirds of all new capacity connecting under Transformational Change is in the form of shared ownership. The UK government is currently exploring introducing a mandatory shared ownership offer within the Infrastructure Act 2015. A 20% mandate, as modelled in this scenario, would require new primarily legislation. Welsh Government has also proposed requiring a minimum community-ownership stake of between 15% and 25%, or equivalent community benefit fund, for projects over 10 MW as a key condition of consent. A significant role for Great British Energy is modelled under this scenario to 'steward' a shared ownership stake in advanced projects, which would then be sold to the community at a later stage.

This scenario also models an integral role for Great British Energy and Ynni Cymru in the uptick in community energy development and shared ownership before 2030, across small-scale solar, large-scale solar and onshore wind.

Distribution-connected, community-owned generation capacity under the Transformational Change scenario



516 MW
Connected by 2030

1.54 GW
Connected by 2035

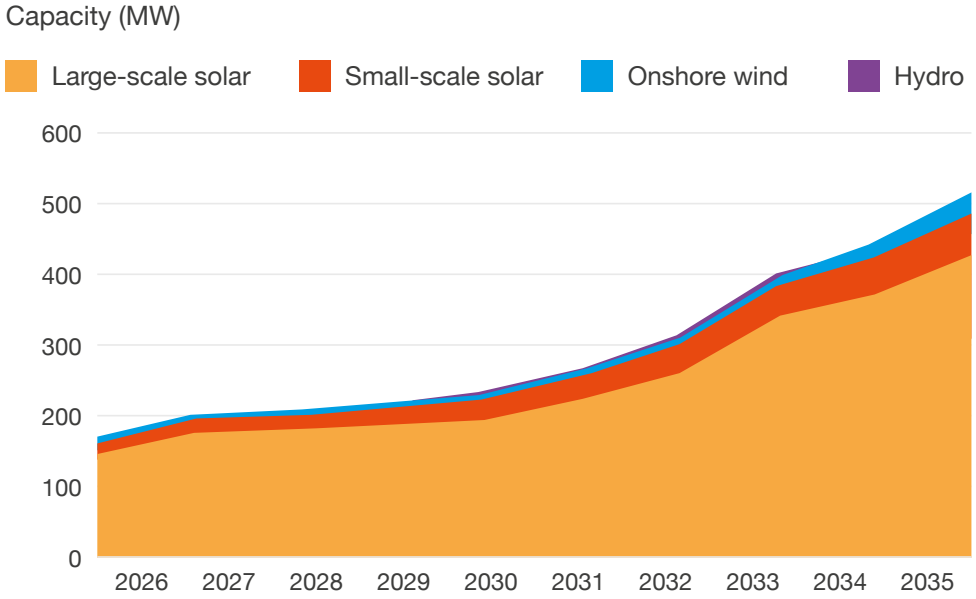
869 MW
Connected during ED3 (2028 – 2033)

Transformational Change

South West

- Under **Transformational Change**, community-owned energy capacity in the South West licence area increases from 172 MW in 2026 to 514 MW by 2035.
- Shared ownership projects are expected to account for more than half of all new capacity added over this period, including 21 MW of community-owned stakes in onshore wind projects and 168 MW in large-scale solar projects.
- The region's growth outlook is underpinned by a mature community energy sector, with a number of established organisations actively developing projects and supporting new community energy groups.
- Small-scale solar is expected to represent a relatively small proportion of total community-owned capacity by 2035 as the licence area contains fewer households and businesses than other licence areas.

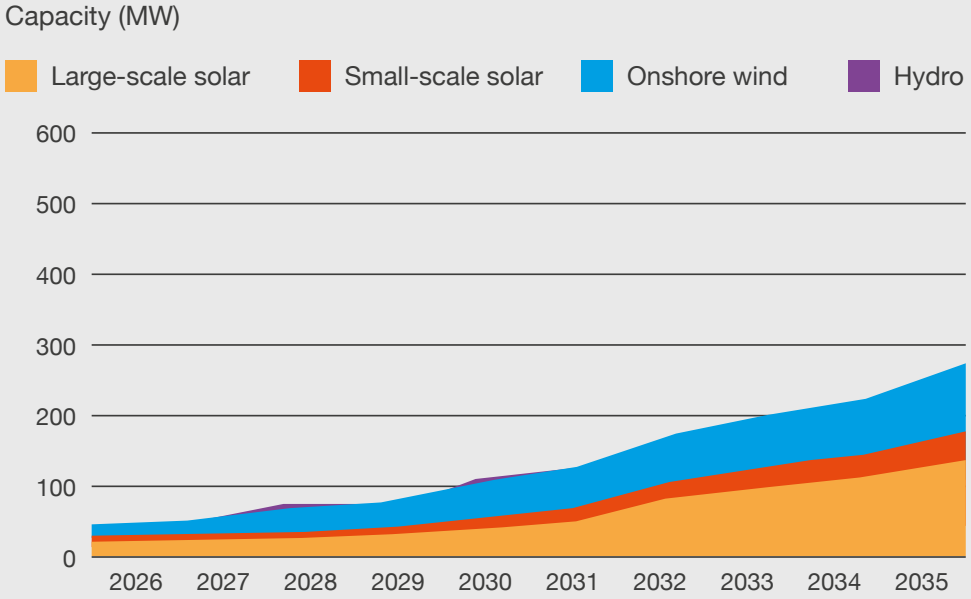
Distribution-connected, community-owned generation capacity in the South West under the Transformational Change scenario



South Wales

- Under **Transformational Change**, community-owned energy capacity in the South Wales licence area increases from 47 MW in 2026 to 281 MW by 2035.
- Shared ownership projects contribute more than half of all new capacity by 2035 as the modelled introduction of new Welsh Government policy. This includes 42 MW of community-owned stakes in onshore wind projects and 81 MW in large-scale solar projects.
- This strong growth trajectory is supported by established and experienced community energy organisations, who can provide capacity-building support to new communities looking to develop projects.
- Small-scale solar installations account for a relatively modest share of total generation as there are fewer households and businesses in South and Mid Wales compared than other licence areas.

Distribution-connected, community-owned generation capacity in South and Mid Wales under the Transformational Change scenario

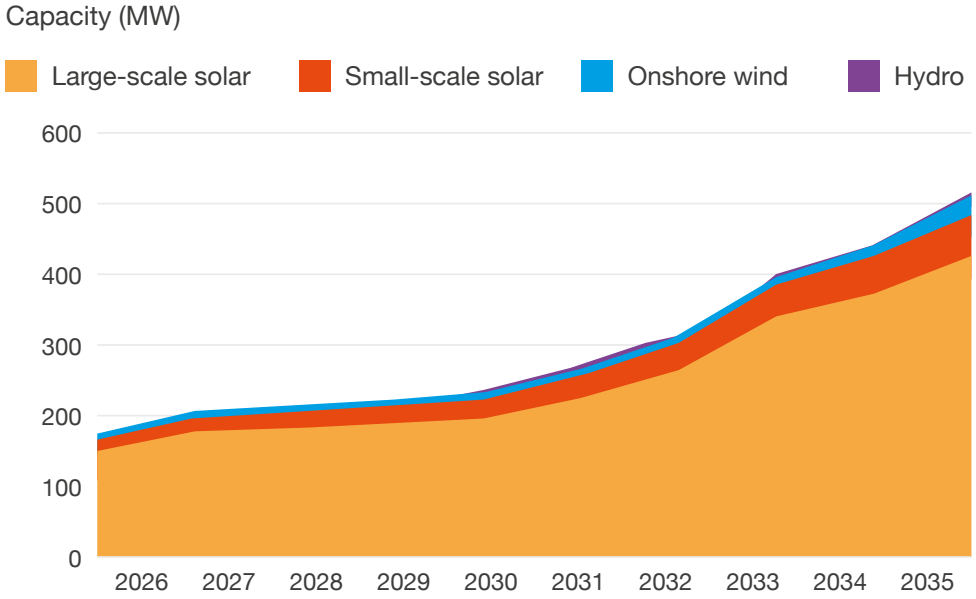


Transformational Change

East Midlands

- Under **Transformational Change**, community-owned energy capacity in the East Midlands licence area increases from 8 MW in 2026 to 394 MW by 2035.
- Modelling under the DFES Holistic Transition scenario shows the East Midlands has considerable potential for future renewable energy deployment. Shared ownership is, therefore, expected to become the primary mechanism for community ownership, projected to contribute almost 90% of all new large-scale capacity in the region by 2035.
- This also reflects the comparatively limited number of existing community energy groups in the region and the large pool of Tier 3 organisations that are not currently engaged in energy related activities. With targeted capacity-building support, these organisations could be leveraged to extend community energy opportunities to underserved communities.

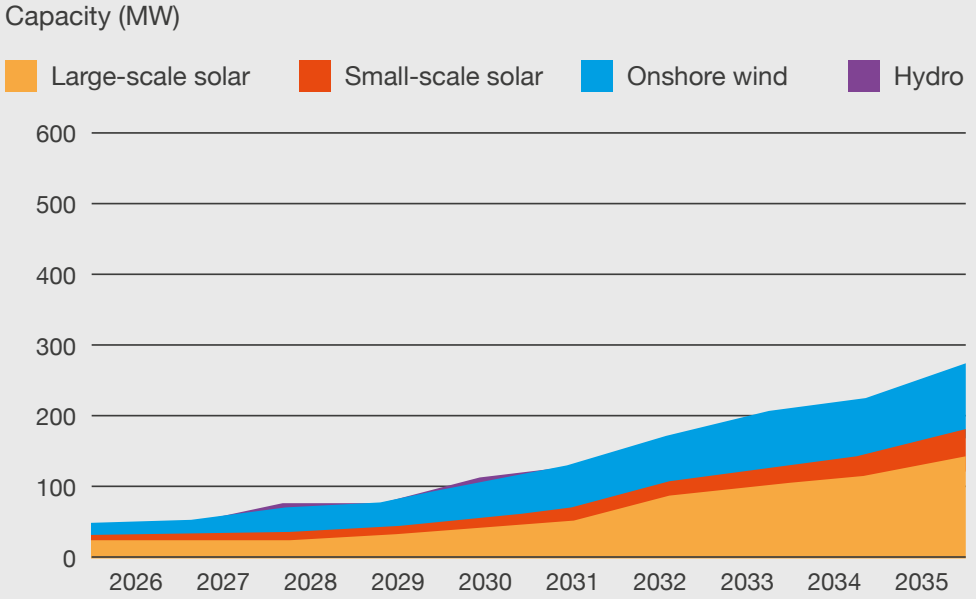
Distribution-connected, community-owned generation capacity in the East Midlands under the Transformational Change scenario



West Midlands

- Under **Transformational Change**, community-owned energy capacity in the West Midlands licence area increases from 39 MW in 2026 to 355 MW by 2035.
- Shared ownership projects are expected to contribute just under 50% of all new capacity added during this period, including 13 MW of community-owned stakes in onshore wind projects and 140 MW in large-scale solar projects.
- A key factor supporting this growth is the presence of a substantial number of Tier 3 organisations. While these organisations are embedded in their communities, they are not directly involved in energy or have not identified capacity for growth. With targeted capacity-building support, they can be leveraged to expand participation into underserved communities.
- Small-scale solar accounts for 21% of all community-owned capacity by 2035, reflecting the region's large population centres.

Distribution-connected, community-owned generation capacity in the West Midlands under the Transformational Change scenario



Conclusions

National Grid ED and other DNOs have a critical role to play in enabling the community energy sector to scale up to meet the UK government's ambition of 8 GW of local and community energy by 2030, and Welsh Government's target of 1.5 GW of locally owned energy by 2035. But we need a clear definition of community energy, and reform to allow differentiated treatment of community energy projects in the connections pipeline in order to accelerate at the scale needed.

Building on National Grid ED and Regen's **Future of Community Energy** report published earlier this year, our Community Energy Scenarios model varying policy, regulatory and market environments to estimate the uptake of community energy across our licence areas.

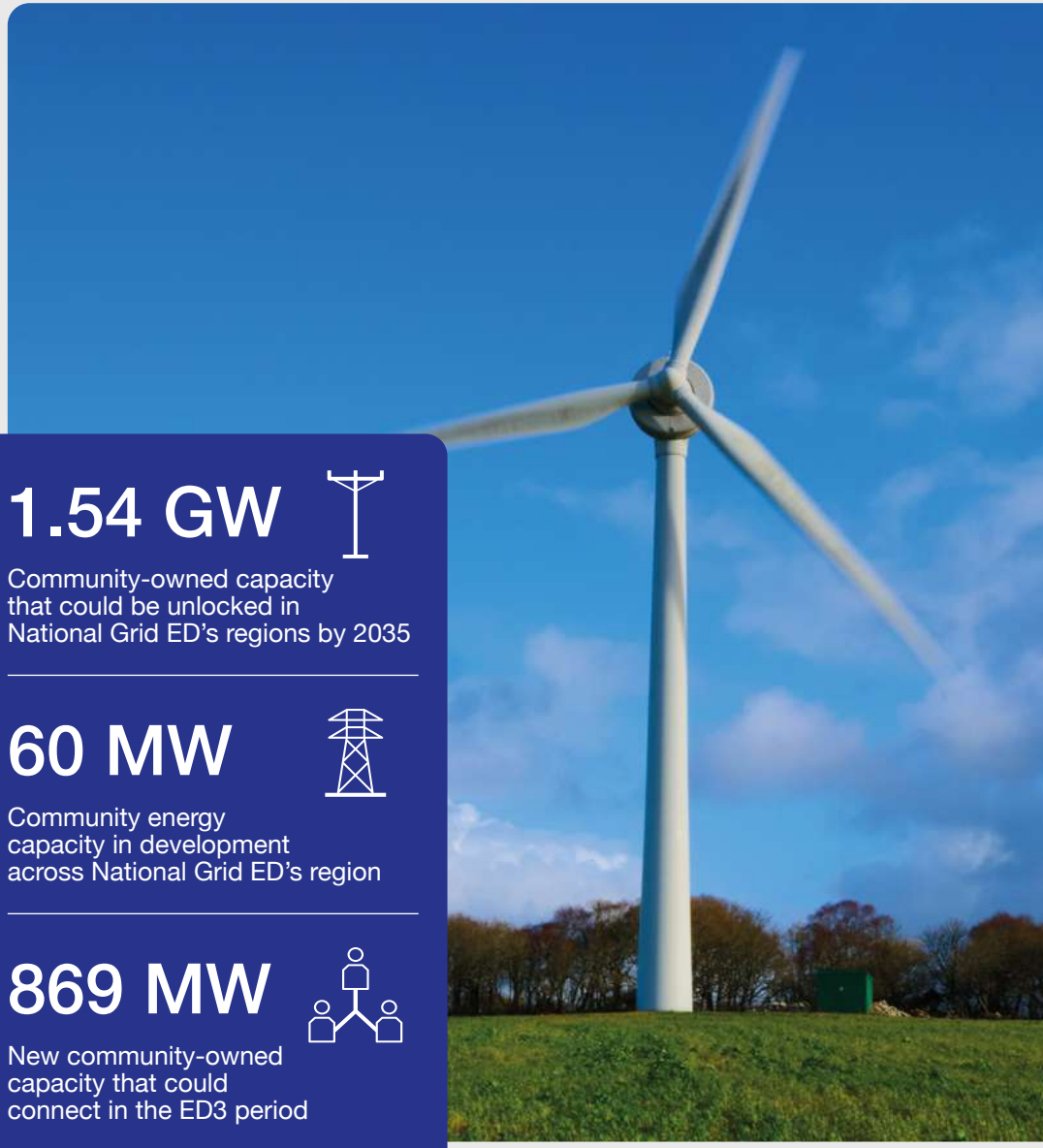
The analysis shows that there is a major opportunity to scale community energy across National Grid ED's region. Community-owned renewable generation could grow from a current baseline of 265 MW to up to 1.5 GW by 2035 under a transformational pathway. Much of the growth modelled is linked to the rapid deployment of renewables in the underlying DFES scenario; however, there is no guarantee that these projects will be delivered with community ownership.

Growth will not look the same across National Grid ED's four licence areas. Some places are ready to move quickly if the right support is in place; others will need longer-term help to build strong foundations but may have the most to gain.

Renewed commitments from the UK and Welsh governments, alongside up to £1 billion in funding for local and community energy from Great British Energy, have the potential to unlock significant value for communities across the UK, both in terms of clean energy generation and wider social and economic benefits.

Where policy and market conditions across shared ownership, grid access, capacity building, export pricing and local energy markets remain unchaNational Grid ED, the modelling indicates capacity of 527MW in National Grid ED's regions by 2035. At National Grid ED, we recognise the scale of the challenge and are already supporting groups through dedicated guidance and events, as well as leading a number of innovation projects, focused on connections reform and shared ownership for community energy organisations.

We want to work with governments, Great British Energy, Ynni Cymru, Regen, industry and communities to unlock community energy and share the benefits of the energy transition more fairly.



1.54 GW

Community-owned capacity that could be unlocked in National Grid ED's regions by 2035

60 MW

Community energy capacity in development across National Grid ED's region

869 MW

New community-owned capacity that could connect in the ED3 period

Get support from us

Community energy brings people together to shape a cleaner, fairer and more resilient energy future. We support community energy groups because they help local people play an active role in generating clean energy, improving efficiency, reducing demand and bringing long-term benefits back into their communities.

We are strengthening our support by working more closely with community energy groups, sector bodies and local partners.

Through events, guidance, case studies and community energy appointments we are helping groups engage with us earlier, understand the connection process and learn from other communities.

Community energy appointments

Discuss your project with a planner. We're working closely with community energy groups and value the volunteer-led approach. Here's how you can **book an appointment** and access support.

Community energy events

Our open **Community Energy events** explain our process, share useful resources, and connect community groups and local authorities to develop Net Zero projects.

Guides, tools, funding and useful links

Find further support, including connections guidance, planning guidance, external funding links, sector bodies, planning tools and network maps on our dedicated **community energy page** that may help shape your project.

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