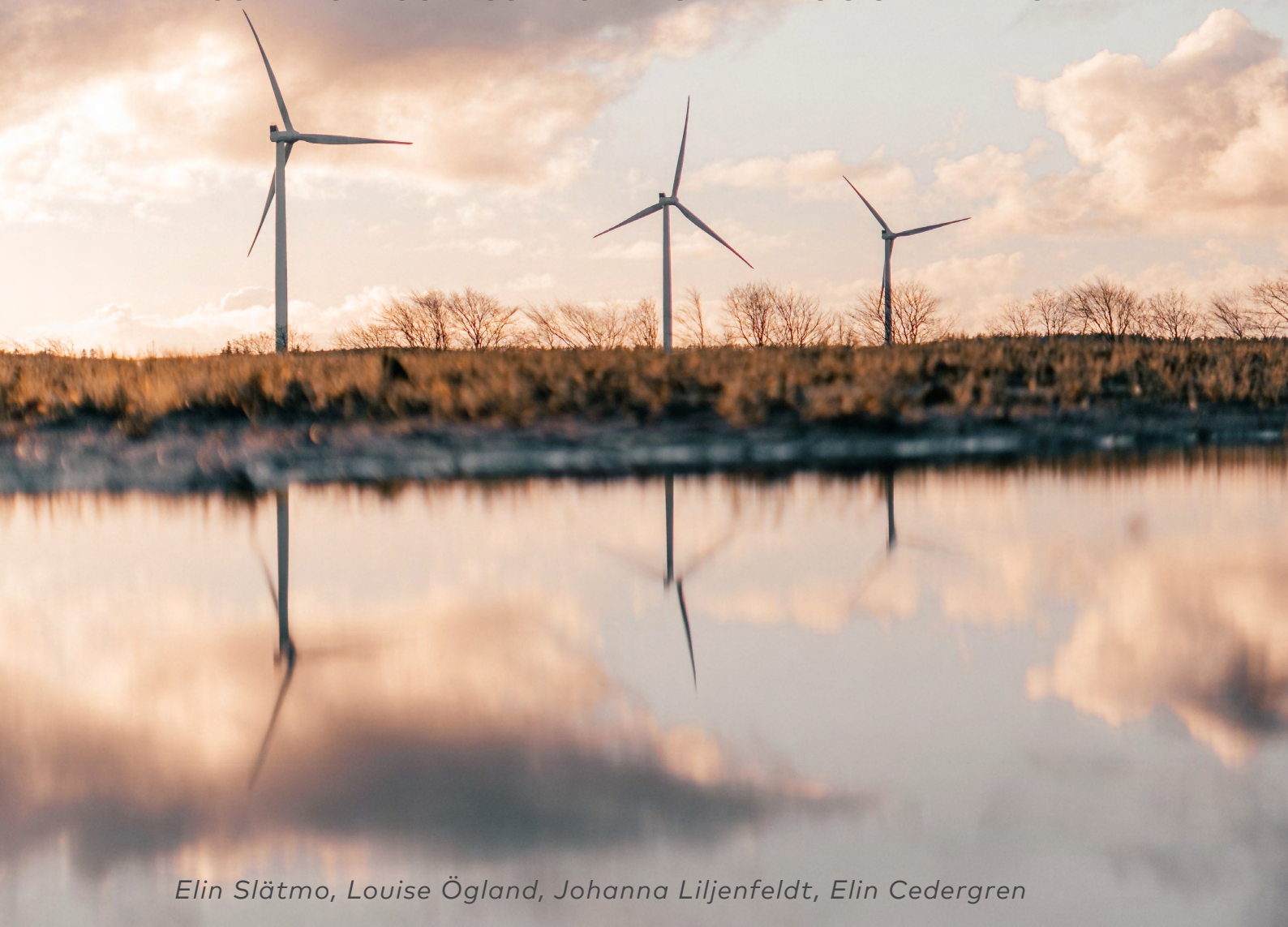
Nordregio

Local ownership of sustainable energy

A GUIDE FOR LOCAL COMMUNITIES AND DECISION-MAKERS

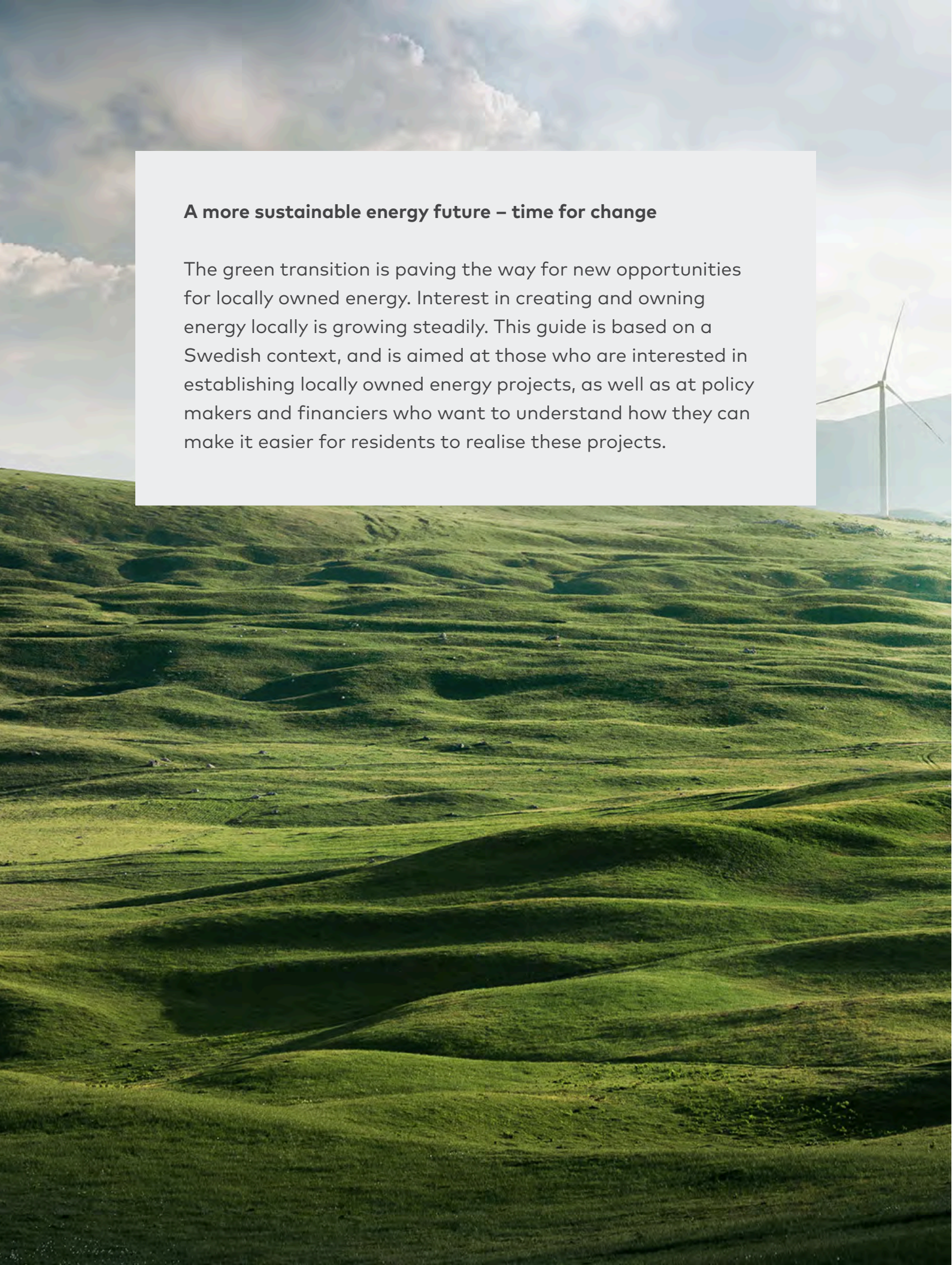


Elin Slätmo, Louise Ögland, Johanna Liljenfeldt, Elin Cedergren

NORDREGIO REPORT 2025:6

Contents

This publication is also available online in a web-accessible version at: https://pub.nordregio.org/



A more sustainable energy future – time for change

The green transition is paving the way for new opportunities for locally owned energy. Interest in creating and owning energy locally is growing steadily. This guide is based on a Swedish context, and is aimed at those who are interested in establishing locally owned energy projects, as well as at policy makers and financiers who want to understand how they can make it easier for residents to realise these projects.

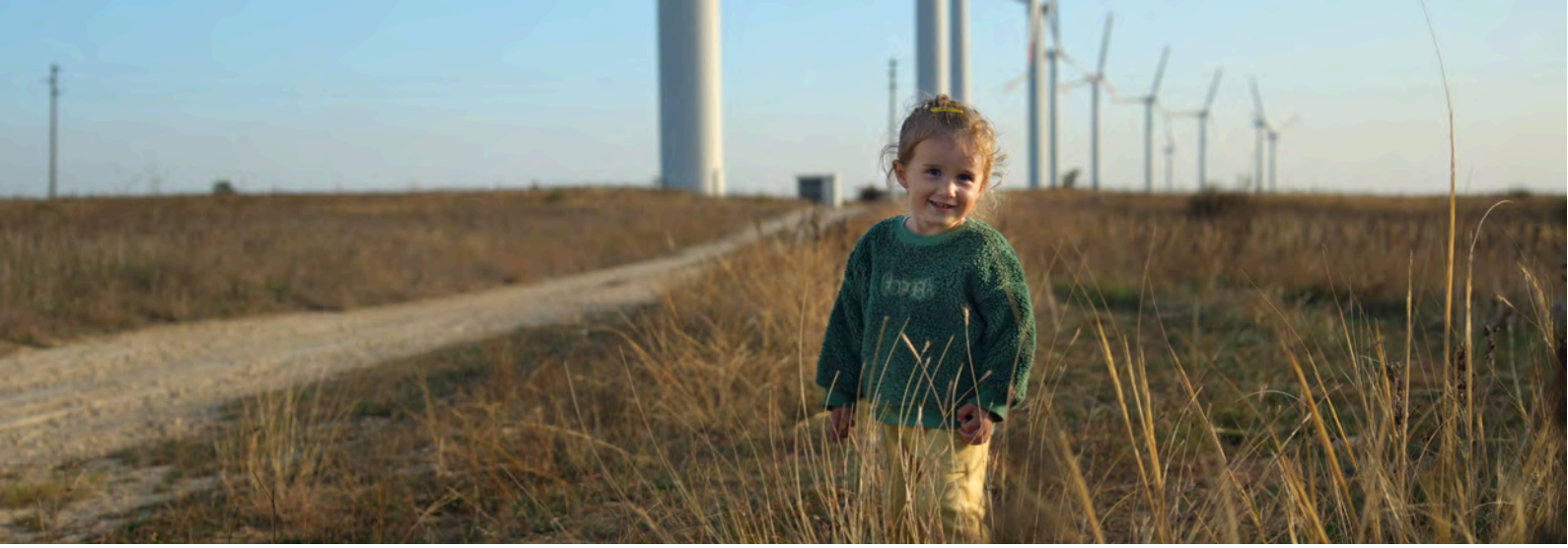


Foto: iStock

Introduction

This guide provides an overview of the basic prerequisites for successful locally owned energy projects. The sections include:

- Inspiration from successful projects: Examples and stories from others who have succeeded with locally owned renewable energy.
- A three-step process model: A practical guide to starting and running local energy projects.
- Tips on relevant documents, sources, and stakeholders: Get help and support from experts and organisations in Sweden.
- Recommendations for politicians and administrations: Suggestions on how to support local energy initiatives in your role.

What is locally owned energy?

Locally owned energy projects are a growing force in the energy sector, with local communities taking control of their own energy production. These projects involve residents, businesses, and organisations in a specific geographical area jointly owning and managing energy sources and jointly deciding on and controlling energy supply and use.

By owning the energy themselves, participants not only benefit financially but also have more influence over how the energy is produced and used. This creates opportunities for sustainable development, empowers local autonomy, and promotes social cohesion.

Locally owned energy projects are seen as key to meeting climate challenges while reducing dependence on external stakeholders and creating a more robust and

resilient energy supply. At a time when shifting to sustainable energy is vital, these projects provide a tangible opportunity for communities to steer and shape their own energy future.

This project has developed the following **definition** of local ownership of energy:

An energy project or process where the project/process, influence over decisions, and ownership have a clear connection to a specific geographical area. The owners themselves experience both positive and negative impacts as a result of the project and have the opportunity to control these impacts by way of their ownership.

Foto: iStock

Locally owned energy – one of the solutions

Climate change requires a transition to sustainable energy supply. Meanwhile, digitalisation and the "smart transition" are increasing our demand for energy. The Intergovernmental Panel on Climate Change (IPCC) is advocating a shift in the way society is organised and has identified the energy sector as a key element in this. Research points to the need to reduce energy consumption and to innovate in terms of both the type of energy used and how it is produced, owned, shared, and distributed. Through locally owned energy projects, we can facilitate a transition to a sustainable society, reduce distribution costs for energy production, increase energy self-sufficiency, and promote collaboration for civil preparedness in the local community.

Current situation: Ambiguities around local ownership of energy

EU countries are committed to achieving climate neutrality by 2050. 75 % of EU emissions currently stem from energy use and production. Phasing out fossil fuels in the energy sector is a crucial step towards achieving a climate-neutral EU.

To achieve climate neutrality and help deliver on the Green Deal, two types of energy communities have been introduced at the EU level by way of two EU directives: Citizen Energy Communities and Renewable Energy Communities.

At the regional and local levels in Sweden, there are strategic vision documents and plans to refer to in the establishment of locally owned energy.

Although the framework is in place, it's not always clear how locally owned energy projects should be dealt with in legislation and planning. Both at the EU level and in Sweden, legislation emphasises that the transition of the energy sector needs to incorporate aspects of equitability, and that there can be advantages to more small-scale, locally produced energy. At the same time, international research shows the positive effects of joint energy ownership and production.

This guide has been developed by a group of Swedish researchers as part of a project funded by the Swedish Energy Agency. It is based on scientific studies, interviews with people involved in five different local energy projects, three workshops with these people, and several meetings with a reference group consisting of researchers, public stakeholders, and civil society organisations. The objective of the guide is to promote local ownership of energy for a sustainable energy future.

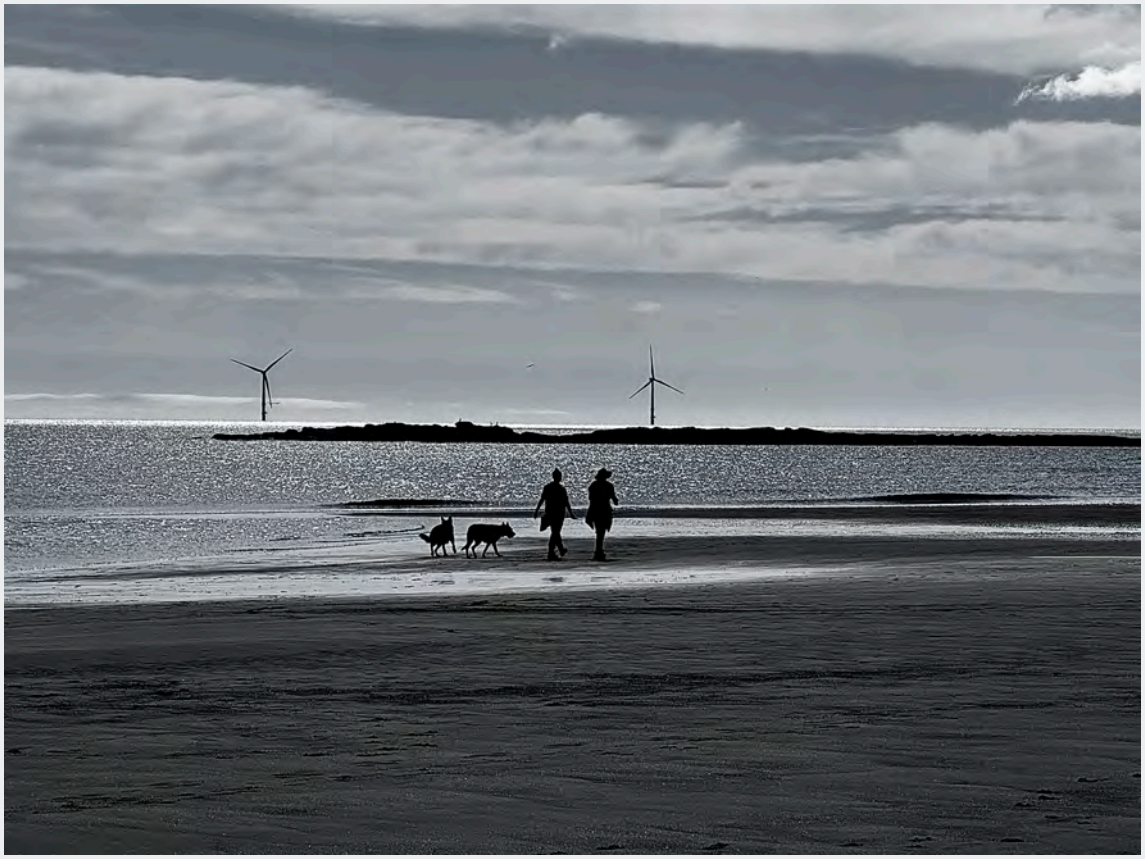


Foto: iStock

Inspiration: Locally owned energy projects

If you're interested in establishing a locally owned energy project, you're not alone – there are plenty of examples of successful locally owned energy projects in Sweden and Denmark. You can learn more about how others have done it below:

- On the Danish island of Bornholm, a group of local residents has initiated a large-scale wind power co-ownership project. READ MORE
- An economic association and energy community in a village on the Swedish island of Gotland demonstrates how joint forces can ensure locally anchored development. READ MORE
- An individually and co-operatively owned small-scale hydropower facility on a farm in Värmland, Sweden. READ MORE
- A limited liability company with circular and local roots in Gotland, Sweden, has succeeded in making biogas from agricultural waste. READ MORE
- A housing association on the outskirts of Stockholm, Sweden, wanted to reduce energy consumption and put solar panels on the roof, among several other measures. READ MORE

Hydropower in Värmland. Photo: Anders Björbole / **Solar cells in Östergarnslandet.** Photo: Austerland Energi / **Solar cells on a condominium**. Photo: Mathias Ridal / **Biogas Gotland.** Photo: Daniel Olsson / **Wind in Nexø**. Photo: Johannes Lidmo

Step by step: Creating locally owned energy

This practical guide takes you through three steps: start-up, implementation, and operation and renewal. Whether you're a novice or you already have experience in the energy field, this guide will give you the tools and insights you need to realise your project. The guide is based on a process-orientated approach in which work is ongoing.

START-UP

Motivation
Organising
Funding

IMPLEMENTATION

Responsibility
Communication
Localisation

OPERATION AND RENEWAL

Documentation
Skills development
Evaluation

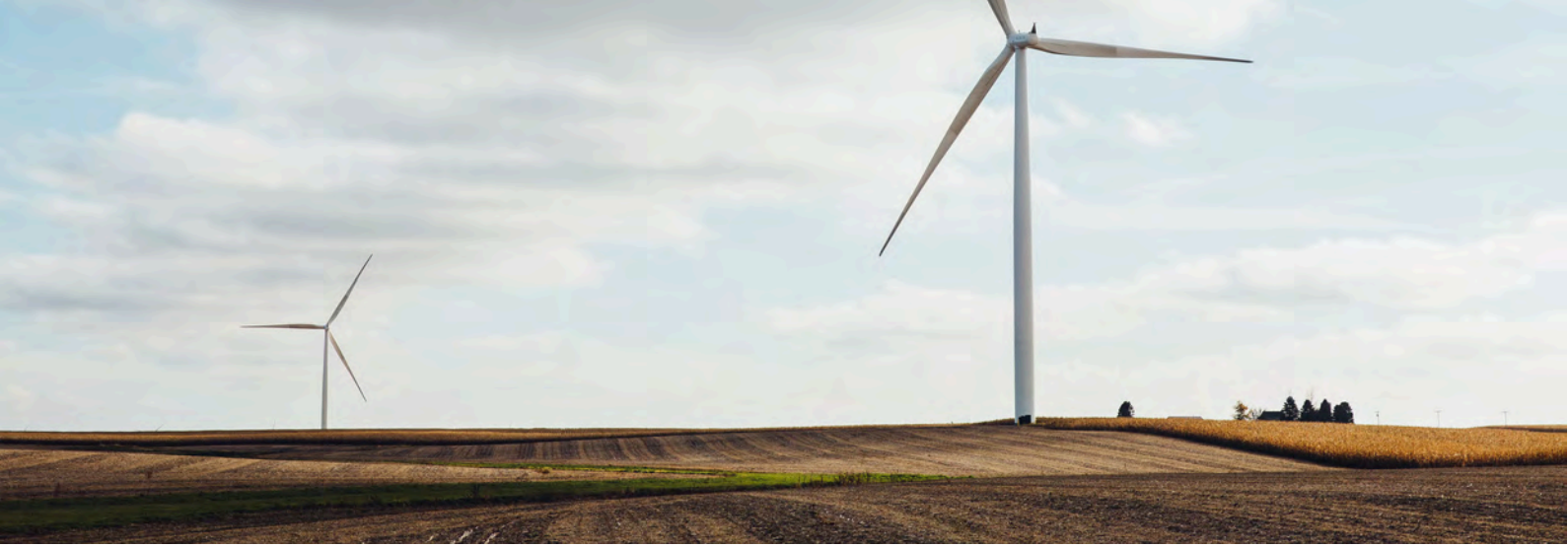


Foto: Unsplash

Step 1: Start-up

It starts with people! A basic prerequisite for the success of your project is forming a group that is responsible for the organisation's direction, contact network, administration, and management. Central to this is documenting the process, steps, and decisions as well as establishing and maintaining networks of people who contribute in different ways, whether the project is urban or rural.

You can take advantage of existing methods and resources for start-up support:

- Studiefrämjandet offers materials for a study circle called Sustainable Energy Together.
- The Swedish Agency for Economic and Regional Growth offers a method for location development that involves creating joint locality meetings.
- The Swedish Agency for Youth and Civil Society, MUCF, offers knowledge support for civil society in Sweden.
- Rural Sweden is a civil society organisation that has 24 county divisions and can be contacted for collaboration.
- Coompanion promotes co-operative entrepreneurship in Sweden through government and regional funds and can be contacted for free support and guidance.
- Sveriges EnergiFöreningars Riksorganisation SERO has several local associations around Sweden and is also part of an international network.

The conditions for starting up a locally owned energy project vary depending on where you live. It can be worthwhile contacting the municipality or region's energy or environment manager, such as a climate or environmental strategist, to get an overview of current projects and any local or regional conditions that you need to take into special consideration.

Business developers in the municipality or region can provide an expanded network of contacts, as well as insights into establishment and financing.

For inspiration, there is a Danish guide for local participation in the green transition, produced by the interest organisation Landdistrikternes fællesråd.

More up-to-date information about locally owned energy in Sweden and the rest of Europe can be found on the website of the interest organisation Sweden's Energy Communities.

In the start-up phase, the group needs to answer the following questions:

Why do you want to create a local energy project?

Motivations may include:

- Having a technical interest in how energy is generated
- Wanting to contribute to a better world with a smaller carbon footprint
- Wanting to run a joint project
- Wanting to save money and other resources

Who should be involved?

Invite a broad range of people and encourage participation, regardless of financial capital or prior knowledge. An inclusive process is central to ensuring local anchoring. For example, you can send out a survey to other local residents to gauge interest in owning energy locally and invite them to an information meeting. Contact grid owners and the municipality early in the process. There may be stakeholders with competing or conflicting interests that may give rise to conflict locally. Being welcoming and creating an open dialogue can help to counteract this.

Different skills are needed to succeed with locally owned energy projects. Such skills may cover areas such as energy, the energy system, financing, laws and regulations, and local conditions, as well as how to hold good meetings and document them correctly. Try to compose a group that includes several of these skills at the start of the project. If needed, you can call on external expertise, such as from Swedish municipal energy advisors, the regional Energy agencies, or on specialist knowledge in technology and legislation. Needs can be identified retrospectively, and relevant skills may change during the different phases of the project.

There are a number of handbooks and support materials on how to ensure participation, inclusion and transparency, and on how to manage power and equality (Slätmo et al. 2020; Rural Sweden, 2024; MUCF, 2021). See, for example,

"Meeting methods" by Rural Sweden and the "Democracy Handbook" on MUCF's website.

What energy needs are there?

Conduct a needs analysis to understand your energy needs. You can get support for this work from public- or private-sector energy advisors, energy consultants, or civil society organisations, among others.

In this case, it may be a good idea to contact the regional energy office. Find your regional office on Energy Agencies Sweden's website.

If you want to make your home more energy-efficient, the Swedish National Board of Housing, Building and Planning's energy guide may be helpful.

Framtidskraft is a digital tool developed by Coompanion Värmland to facilitate the visioning, planning, and creation of local democratic energy communities. The tool provides an overview of how a local democratically owned energy community may look in urban, residential, or rural areas with different energy types. It also helps calculate the community's energy production, energy balance, and approximate investment costs. This video clip shows how Framtidskraft works.

What will the impact be if we establish a locally owned energy project?

Conduct a risk and benefit analysis to identify and minimise risks. Define the strengths, weaknesses, opportunities, and risks and use these insights to inform your decisions.

The impact and benefits of the project will depend on its objectives. It's important to identify the geographical area in which you want to operate, who will benefit, and the timeframe of the project. Local ownership can bring benefits in the form of measurable results, but it can also involve social or cultural factors that may be more difficult to measure or discern, such as cohesion, community, and identity creation. The same applies to potential risks. The risk–benefit analysis can, for example, provide guidance on where it is appropriate to place infrastructure, how responsibilities and benefits are shared across the group, and what skills are needed. This requires a clear project plan with objectives that are proactive and focused on both the process and the desired outcomes.

Swedenergy offers a risk management course, and at Energiforsk you can learn more about risk and reliability analyses.

How should we organise ourselves?

Choose an organisational structure based on the group's interests, needs, and access to capital. The project's case studies can inspire you to create an economic association, a limited liability company, or a co-operative, or to use a housing association to own energy locally.

The Swedish Energy Markets Inspectorate recommends an economic association for creating an energy community.

The Swedish Companies Registration Office can also provide information about different types of companies and associations in Sweden.

Keep in mind that rules, capital requirements, and tax conditions differ depending on the organisational structure.

Read up on the different options and select a structure based on the motives you've documented, your group, your energy needs, the local impact you want to have, and the funding solutions that suit you best.

How will the project be funded – in the short and long term?

Apply for funding for a feasibility study. These funds can be used to pay consultants to review legislation on energy, land and the environment, local guidelines, and building permit requirements. Those who run the organisation will normally do so on a voluntary basis to start with.

A risk–benefit analysis that demonstrates the economic benefits, as well as the environmental and social impact, can be a great help in getting your application for a feasibility study approved.

Funding can come from multiple sources, not just those with an energy focus. Financing and a willingness to invest by external parties can be difficult for local projects to achieve. Co-funding is often required, and in some cases, an individual can become a creditor. For inspiration on how projects can be funded, visit Mikrofonden website.

Inspiration for how projects can be funded:

- Green bonds for environmental projects. KLIMATKOMMUNERNA.SE
- Sweden's innovation agency Vinnova offers funding. VINNOVA.SE
- LEADER funding can also be an option if the project contributes to development that falls within the development strategy of the Leader area. JORDBRUKSVERKET.SE
- A co-operative means that each person who joins contributes a share. Coompanion can be contacted for support and guidance. COOMPANION.SE
- Crowd funding is still an unusual way to fund projects, but Energikontoret Syd cites examples from other countries that can be applied in Sweden. This can offer a way of securing start-up capital from different members, both those who buy shares in the organisation and other members of a community. ENERGIKONTORSYD.SE
- The SEB Nordic Energy Fund has an emphasis on small-scale renewable energy infrastructure. SEBGROUP.COM
- Mikrofonden invests in the social economy with a focus on societal benefit. MIKROFONDEN.SE

Foto: Unsplash

Step 2: Implementation

Share responsibility and clarify the longevity of the project

Once you've established the start-up framework, it's time to put the project into action. Allocate responsibilities in the group based on your chosen organisational structure and make sure that you have a shared understanding of the organisation's long-term administration.

Communication

Decide how you're going to communicate. This includes deciding how to communicate about the project and its activities externally, as well as how you communicate internally. Digital platforms, local organisations, and local newspapers can be relevant channels. External communication can also take place through networks and conferences, such as Sweden's network of energy communities, or ReScoop, which is the European network of energy communities.

Physical localisation

Based on the risk–benefit analysis conducted in the start-up phase, decisions need to be made about the physical establishment. Do you need an office of some kind or a meeting venue, physical infrastructure, and materials? Where will the energy project be established locally – at or adjacent to existing businesses? Are you building something new and if so, do you need a building permit? Have you ensured that the location is in line with the municipality's general local plans and detailed zoning plans?

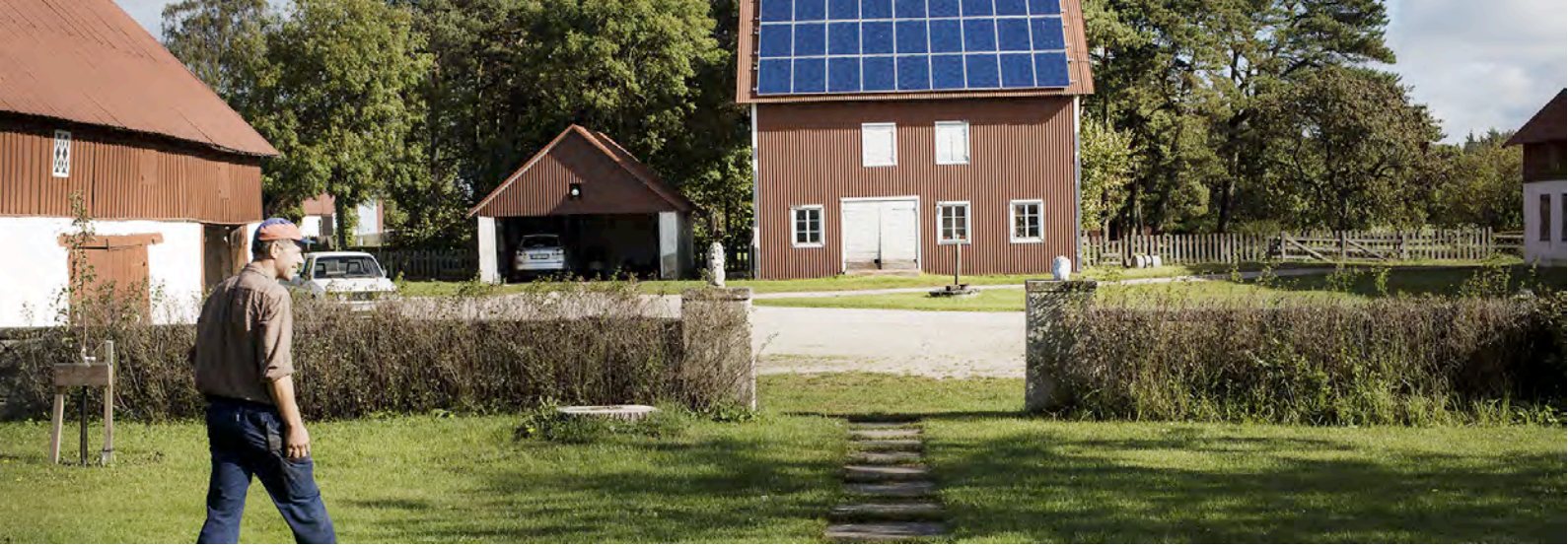


Foto: Karl Melander/imagebanksweden.se

Step 3: Operation and renewal

Documentation and procedures

You need ongoing documentation, procedures, and recruitment of new and dedicated members in order to ensure the long-term nature of your administration. Continuity is also established through an organisation's annual reports, quarterly reports, and annual meetings.

Skills development

Skills development and learning from each other are central to the development of the project and also creates added value locally. It's energising to work together, to be part of creating something together. Don't forget to have fun, and don't forget the importance of a break for a cup of coffee and a bun!

Locally owned energy projects and processes that contribute to the local community provide an opportunity to have fun in a meaningful way.

Evaluation

Evaluation is also important for the survival and development of the local energy initiative. The project or process can be evaluated against its original objectives, as well as against new objectives and lessons learnt over time. You can evaluate in a variety of ways, including surveys, interviews, interactive meetings, or open discussions.

To conclude this guide, we would like to emphasise the importance of evaluating and adapting your locally owned energy project on an ongoing basis. By actively monitoring and tailoring your efforts, you can ensure that the project not only survives but thrives and provides long-term benefits to society and the environment alike. Through dedication and collaboration, you are now ready to take the next step towards a sustainable and independent energy future. We wish you the best of luck!

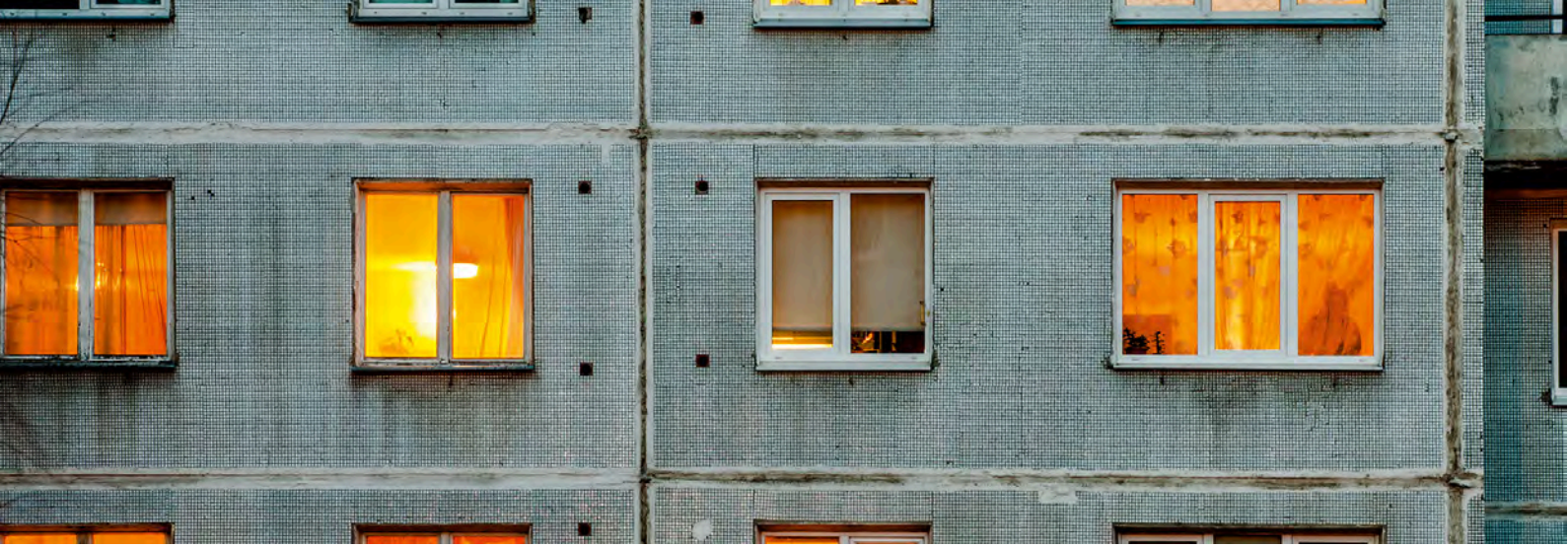


Foto: iStock

Recommendations for policy and administration

Locally owned energy has the potential to be one of the most powerful drivers of a sustainable future and a green transition, but it requires the right conditions. Significant challenges remain, despite a strong political will to support this transition, both at the EU and national levels. In Sweden, as in many other European countries, the lack of clear structures and political support has made it difficult for local energy projects to flourish. Local stakeholders, who should be cornerstones of the green transition, are often seen more as obstacles than as opportunities, and more support is being called for at the EU, national, regional, and local levels.

Based on our research and stakeholder collaboration, we've identified measures that can pave the way for successful locally owned energy projects in Sweden. We have summarised these measures in six points:

1. Clearer rules for locally owned energy

Sweden needs clearer rules for locally owned energy. If there is political will at the national, regional, and local levels to support locally owned energy processes and projects, a global analysis indicates that four categories of instruments can be used:

- economic instruments,
- creation of access to power grids,
- environmental regulations in connection with permits for the development of

energy supplies,

• support for regional and local planning for energy needs.

Within these four categories of instruments, a plethora of different policy instruments have been identified that can be used to encourage locally owned energy.

Globally, the highest rates of implementation were financial subsidies, feed-in tariffs (which aim to increase investment by offering long-term contracts to renewable energy producers), and grid services for connection and distribution.

Sweden's national politicians should clarify their support for electricity distribution, according to a report from the Swedish Energy Agency. Europe has already recognised that energy communities can be a key to achieving our ambitious climate goals. According to the European Commission, EU residents can produce up to half of the EU's renewable energy by 2050. To realise this vision, a concerted effort is needed, whereby both political support and clear rules serve to foster locally owned energy projects. Sweden can take inspiration from other European countries' targeting of locally owned energy and the implementation of the EU's Energy Community Directive in other European countries.

2. Interplay between public planning and local initiatives

There needs to be a flexible interplay between central governance and local initiatives, with central frameworks for local solutions. Municipalities and regions need to create such frameworks that use national policy as their basis. There should be a legal obligation to have a strategic physical energy plan at the municipal or regional level that provides clear directives on what land and water areas are available for the establishment of major energy projects. It is crucial that such energy plans are developed in consultation with local communities. Such a process was initiated in Sweden in 2023 (regeringen.se), with the regional levels tasked by the national level with developing energy plans.

These initiatives are steps in the right direction towards a more localised approach. A renewable energy transition that is rooted in the local community requires the unique conditions of the location to be taken into consideration to ensure sustainable and robust regional development. These conditions include physical resources, business structure, and social capital. Energy projects where both the project/process and (parts of) the ownership have a clear localisation in one and the same geographical area are not necessarily the antithesis of industrial energy supply. Rather, they can be seen as steps towards a more secure and regionally adapted energy supply, where different solutions intertwine with and strengthen each other.

3. Inclusive processes and equitable ownership

To minimise antagonism, politicians at the national, regional, and local levels should include local communities in the process before specific energy projects are even discussed or potential investors approached. Municipalities can use various methods to negotiate long-term sustainable solutions, and local communities should be given the opportunity to demand local ownership or local benefit when new energy operations are established.

To ensure that it is not only those with the greatest economic resources who have influence over energy in Sweden, it's important to safeguard the equitable ownership of energy. This means that it is preferable to have a variety of organisational structures, including models where people with different levels of financial capital can own energy together. The Swedish Energy Markets Inspectorate points out that an economic association is a good structure for energy communities.

4. Facilitation by way of governance and training

To facilitate permit applications, politicians at the national, regional, and local levels can clarify the importance of locally owned energy to regional energy offices, private energy consultants, and financial stakeholders. Funding and a willingness to invest are often lacking in local projects, which often require capital from local communities instead. Financial stakeholders such as banks, lending institutions, and other public investors need training material in order to increase their willingness to invest and better cater for the communities that want to create locally owned energy. Regional energy offices, research groups, and civil society organisations such as Studiefrämjandet, Rural Sweden, and Coompanion can assist in such a training initiative.

5. Review of tax rules

Tax rules should be reviewed at the national level in Sweden. The current regulations mean that large-scale industries and private individuals with solar panels on their own property can receive tax benefits, while small-scale energy communities pay full tax and VAT on self-produced energy. This puts small-scale energy partnerships at a disadvantage. There is a desire for the tax rules that apply to individual operators to also apply to setups where multiple people share an energy solution.

6. Dialogue on responsibility for energy balancing and remuneration

National and regional politicians should invite relevant stakeholders in each region to engage in ongoing dialogue on responsibility sharing and remuneration for energy balancing in the grid. To ensure access to energy in times of crisis, national stakeholders and grid owners may need to review technical expertise and ensure that grid companies are aware of the role they play in the energy system. The technical and safety expertise of energy companies is needed in order to facilitate energy sharing between households and to create 'island operation' in critical situations if necessary.

By implementing these recommendations, we can lay the foundation for a sustainable and equitable energy future in which locally owned energy projects are not only part of the solution to climate challenges but also strengthen local communities.

Read more

REFERENCES AND LINKS TO WEBSITES

CEES (2024). Community Energy for Energy Solidarity. EU-project that have received funding from the European Union's Horizon 2020 research and innovation programme. https://www.energysolidarity.eu/cees-offers-key-policy-insights

EC (2024a). European Commission. Energy community Repository. General information. Managed by Directorate-General for Energy. Accessed at: https://energy-communities-repository.ec.europa.eu/energy-communities-repository-energy-communities/energy-communities-repository-general-information_en

EC (2024b). Report: Barriers and action drivers for the development of energy communities & their activities. Directorate-General for Energy | Energy Communities Repository Accessed at https://energy-communities-repository.ec.europa.eu/report-barriers-and-action-drivers-development-energy-communities-their-activities_en

Elmarknadsdirektivet (2022) EUROPAPARLAMENTETS OCH RÅDETS FÖRORDNING (EU) 2022/869 av den 30 maj 2022 om riktlinjer för transeuropeisk energiinfrastruktur, om ändring av förordningarna (EG) nr 715/2009, (EU) 2019/942 och (EU) 2019/943 och direktiven 2009/73/EG och (EU) 2019/944, och om upphävande av förordning (EU) nr 347/2013. Tillgänglig via https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R0869

Förnybartdirektivet (2023). EUROPAPARLAMENTETS OCH RÅDETS DIREKTIV (EU) 2023/2413 av den 18 oktober 2023 om ändring av direktiv (EU) 2018/2001, förordning (EU) 2018/1999 och direktiv 98/70/EG vad gäller främjande av energi från förnybara energikällor, och om upphävande av rådets direktiv (EU) 2015/652. Tillgänglig på https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1712569088751

Europeiska unionens råd (ministerrådet) och Europeiska rådet (2024). Om EU:s gröna giv https://www.consilium.europa.eu/sv/policies/green-deal/

Energimarknadsinspektionen (2024). EU-lagstiftning energieffektivisering och förnybart. Tillgänglig via https://ei.se/om-oss/lagar-och-regler/eu-lagstiftning/eu-lagstiftning-energieffektivisering-och-fornybart

Energimyndigheten (2024). Energigemenskaper för ett mer robust energisystem https://www.energi-myndigheten.se/energisystem-och-analys/energi-gemenskaper-for-ett-mer-robust-energisystem

Energimyndigheten (2024). Sveriges energi- och klimatmål. Tillgänglig via https://www.energimyndigheten.se/klimat--miljo/sveriges-energi--och-klimatmal/

European Sustainable Energy Week (2024) Homepage – European Commission (europa.eu)

Hela Sverige ska Leva (2024) Mötesmetoder https://servicebanken.helasverige.se/motesmetoder-kategori/ och Checklista för bra möten https://servicebanken.helasverige.se/planera-for-motet

MUCF (2021) Demokratihandboken https://www.mucf.se/publikationer/demokratihandboken

REScoop.eu is the European federation of energy communities. https://www.rescoop.eu

Sustainable Innovation (2024) Kommunens roll i energigemenskaper. Tillgänglig via https://sustainableinnovation.se/hur-kan-kommuner-bidra-till-energigemenskaper

Sveriges Energigemenskaper (2024). https://www.sverigesenergigemenskaper.se

Vansintjan, D., Pappa, S., and Kriedemann, F. (2024). Blog post: EU Energy Communities legislation 2.0: an upwards trend. Accessed at https://sustainable-energy -week.ec.europa.eu/news/eu-energy-communities-legislation-20-upwards-trend-2024-03-14_en

SCIENTIFIC REFERENCES

Allen, E., Lyons, H., & Stephens, J. C. (2019). Women's leadership in renewable transformation, energy justice and energy democracy: Redistributing power. Energy Research and Social Science, 57. https://doi.org/10.1016/j.erss.2019.101233

Berka, A. L., & Creamer, E. (2018). Taking stock of the local impacts of community owned renewable energy: A review and research agenda. Renewable and Sustainable Energy Reviews, 82, 3400–3419. https://doi.org/10.1016/j.rser.2017.10.050

Clausen, L. T., & Rudolph, D. (2020). Renewable energy for sustainable rural development: Synergies and mismatches. Energy Policy, 138. https://doi.org/10.1016/j.enpol.2020.111289

Gorroño-Albizu, L., Sperling, K., & Djørup, S. (2019). The past, present and uncertain future of community energy in Denmark: Critically reviewing and conceptualising citizen ownership. Energy Research and Social Science, 57. https://doi.org/10.1016/j.erss.2019.101231

Gorroño-Albizu, L. (2020). The benefits of local cross-sector consumer ownership models for the transition to a renewable smart energy system in Denmark. An exploratory study. Energies, 13(6). https://doi.org/10.3390/en13061508

Jenkins, K.E.H. (2019). Energy Justice, Energy Democracy, and Sustainability: Normative Approaches to the Consumer Ownership of Renewables. In: Lowitzsch, J. (eds) *Energy Transition.* Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-93518-8_4

Johansson, A., 2020, Förstudie: Kooperativa energilösningar, Slutrapport, januari 2020, https://coompanion.se/wp-content/uploads/2020/07/kooperativa_energilosningar_webb.pdf

Leonhardt, R., Noble, B., Poelzer, G., Fitzpatrick, P., Belcher, K., & Holdmann, G. (2022). Advancing local energy transitions: A global review of government instruments supporting community energy. Energy Research and Social Science, 83. https://doi.org/10.1016/j.erss.2021.102350

Magnusson, D. & Palm, J., 2019, Come Together – The Development of Swedish Energy Communities, *Sustainability* 11(1056) https://doi.org/10.3390/su11041056

Piterou, A., & Coles, A.-M. (2021). A review of business models for decentralised renewable energy projects. Business Strategy and the Environment, 30(3), 1468–1480. https://doi.org/10.1002/bse.2709

Pons-Seres de Brauwer, C. & Cohen, J.J., 2020, Analysing the potential of citizen-financed community renewable energy to drive Europe's low-carbon energy transition, *Renewable and Sustainable Energy Reviews* 133 https://doi.org/10.1016/j.rser.2020.110300

Reilly, K., O'Hagan, A. M., & Dalton, G. (2016). Developing benefit schemes and financial compensation measures for fishermen impacted by marine renewable energy projects. Energy Policy, 97, 161–170.

https://doi.org/10.1016/j.enpol.2016.07.034

Roberts, J. (2020). Power to the people? Implications of the Clean Energy Package for the role of community ownership in Europe's energy transition. Review of European, Comparative and International Environmental Law, 29(2), 232–244. https://doi.org/10.1111/reel.12346

Ruggiero, S., Isakovic, A., Busch, H., Auvinen, K. & Faller, F. (2019) Co2mmunity: Co-producing and co-financing renewable community energy projects, WORKING PAPER No. 2.3, version 1.0, 31th March 2019, http://co2mmunity.eu/wp-content/uploads/2019/03/Co2mmunity-working-paper-2.3.pdf

Slätmo, E., Oliveira e Costa, S. and Eliasen, Q. S., 2020, D5.1 Methods for setting-up of Multi-Actor Platforms. Sustainable Hub to Engage into Rural Policies with Actors (SHERPA), Report to the European Commission, 28 pp, https://rural-interfaces.eu/wp-content/uploads/2020/04/SHERPA_D5-1_Methods-setting-up-MAPs.pdf

Solman, H., Smits, M., van Vliet, B., & Bush, S. (2021). Co-production in the wind energy sector: A systematic literature review of public engagement beyond invited stakeholder participation. Energy Research and Social Science, 72. https://doi.org/10.1016/j.erss.2020.101876

Wahlund, M. & Palm, J. (2022.) The role of energy democracy and energy citizenship for participatory energy transitions: A comprehensive review, Energy Research & Social Science, Volume 87, 2022, 102482, ISSN 2214-6296, https://doi.org/10.1016/j.erss.2021.102482

Watson, P., Gabriel, M., & Rooney, M. (2015). Get bill smart: A community-partnership approach to supporting low-income households to achieve home energy savings. Indoor and Built Environment, 24(7), 867–877. https://doi.org/10.1177/1420326X15591637

Warren, C. R., & McFadyen, M. (2010). Does community ownership affect public attitudes to wind energy? A case study from south-west Scotland. Land Use Policy, 27(2), 204–213. https://doi.org/10.1016/j.landusepol.2008.12.010

Wierling, A., Zeiss, J. P., Hubert, W., Candelise, C. Gregg, J. S. & Schwanitz, V. J., 2020, Who participates in and drives collective action initiatives for a low carbon energy transition?, In: Paradigms, Models, Scenarios and Practices for Strong Sustainability, Publisher: Editions Oeconomia, pp.239-256.

About the guide

Local ownership of sustainable energy - A guide for local communities and decision-makers

Authors: Elin Slätmo, Nordregio; Louise Ögland, Nordregio; Johanna Liljenfeldt, Uppsala University; Elin Cedergren, Nordregio.

Contributors: Filippa Borgström, Klimatkommunerna; Jenny Breslin, Rural Sweden; Wolfgang Brunner, Austerland; Göran Bryntse, SERO; Anna Bäckstäde, Energicentrum Gotland; Ewa Engdahl, Coompanion Kalmar and national group for energy issues; Magnus Jennerholm, Energicentrum Gotland; Olof Leijonhufvud, Brf Igelbodaplatån; Mats Leivig, Rural Sweden; Johannes Lidmo, Stockholm University; Louise Lindell, Coompanion Blekinge; Helle Munk Ravnborg, Bornholm Havvind; Mathias Ridal, Brf Igelbodaplatån; Karl Sperling, Aalborg University; Leif Tyrén, Coompanion Värmland; Therese Wilhelmsson, Energicentrum Gotland.

This guide is developed within the project "Local ownership in transitions towards sustainable energy systems (ELO)", funded by the Swedish Energy Agency, and implemented by Campus Gotland at Uppsala University, and Nordregio.

For more information, see the project's website:
nordregioprojects.org/locally-owned-energy

Nordregio report 2025:

Layout: Agger Grafisk Design
Cover photo: Mitch Wiesinger / visitdenmark.dk

Nordregio

Nordregio is a leading Nordic and European research centre for regional development and planning, established by the Nordic Council of Ministers in 1997. We conduct solution-oriented and applied research, addressing current issues from both a research perspective and the viewpoint of policymakers and practitioners. Operating at the international, national, regional and local levels, Nordregio's research covers a wide geographic scope, emphasising the Nordic and Baltic Sea Regions, Europe and the Arctic.

Nordregio
Holmamiralens Väg 10
Skeppsholmen
Stockholm, Sweden

www.nordregio.org