

COMMUNITY ENERGY APPROACH PROMOTED BY IRENA FOR A RENEWABLE ENERGY TRANSITION

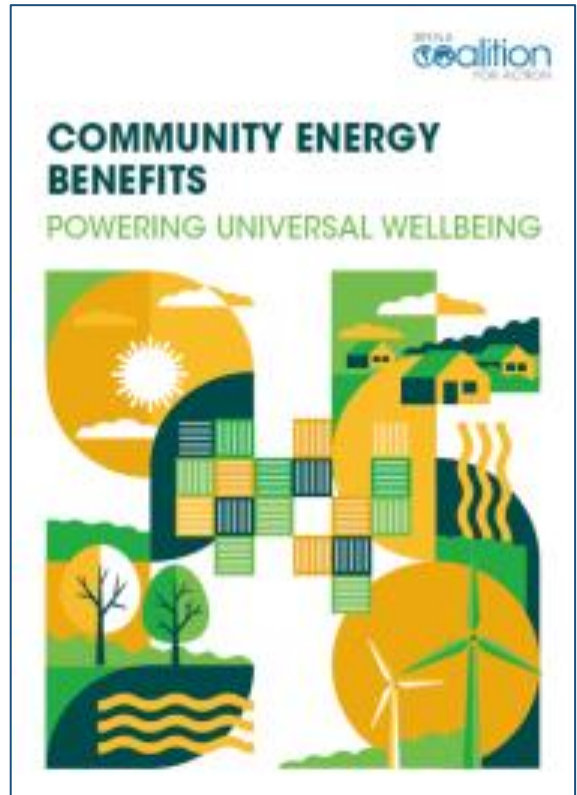
The promotion of *Community Energy* approach is one of the strategies adopted by the International Renewable Energy Agency IRENA and the Coalition for Action, as a crucial enabler for a just and inclusive energy transition. Community Energy is defined as the economic and operational participation and ownership by citizens or members of a community in a renewable energy project.

In November 2024 IRENA published the new Report *Community energy benefits: Powering universal wellbeing*. This report, from the Coalition for Action Working Group on Community Energy, highlights the advantages of pursuing community energy in achieving the tripling of renewable energy capacity by 2030 in a just and inclusive manner. Community ownership and involvement – from project inception to operation – can deliver multiple benefits across social, economic and environmental dimensions, while ensuring that the associated advantages are shared more equitably.

The Report highlights that “As the world grapples with the interrelated challenges of climate change, inequality and geopolitical tensions, it is imperative to rethink the way our societal and economic structures work. Complex problems demand holistic solutions. Future energy systems must not only be renewables-based, but also inclusive and resilient. This requires active citizen participation in addition to universal access to affordable and reliable energy services (IRENA, 2023a). Community energy, defined as the economic and operational participation in and/or ownership of energy projects by citizens, emerges as a vital component of future energy systems designed to tackle these challenges”.

The Report highlights why countries should pursue community energy to achieve their goals of tripling renewable energy capacity by 2030 in a just and inclusive manner. Community ownership and involvement from project inception to operation can deliver multiple benefits and citizen ownership ensures their fairer distribution. Active measures and policies are essential to ensure that these benefits are fully realized.

The first section of the Report focuses into the social aspects of community energy, including public acceptance and support, well-being, citizen empowerment and gender aspects. Following this, the second section examines the economic benefits of community energy, such as providing energy access, including in conflict-affected areas, enabling local development and enhancing local energy security. The third section analyses the intricate connection between community energy and the environment, highlighting how the capacity for adaptation and resilience can be enhanced while developing renewable energy in line with environmental and biodiversity protection goals. The fourth section



outlines approaches to increasing financing for community energy, while the fifth section examines community support for the energy transition infrastructure. The sixth section enumerates barriers to and enablers of community energy and a participatory and inclusive approach.

All the sections illustrating the social, economic, environmental and financing benefits are accompanied with examples of practices being carried out in Australia (Hepburn Energy community grants program); Japan (Shonan Power initiatives enhancing social cohesion); Nigeria (Sosai Renewable Energies empowering women); Malaysia (Youth engagement in micro-hydro); Indonesia (Solar mini-grid strengthening the local economy in Mata Redi); Mozambique Solar power improving livelihoods in the rural community); Yemen (Women-led solar community); India (Community energy security); United Kingdom (Community energy initiatives: Enhancing climate resilience); United Kingdom (The Energy Garden: Improving urban biodiversity); Philippines (Micro-hydro: Fostering environmental awareness); United Kingdom (Pay-As-you-Save model of Brighton and Hove Energy Services); Nicaragua (Community-owned distribution grid) and Ireland (EirGrid Community Benefit Scheme for transmission infrastructure).

The following recommendations outline actions for policy makers to harness the multidimensional benefits that community energy can bring to energy systems:

- Community ownership and citizen engagement should be given more prominence in national and regional development plans, energy policies, frameworks and targets.
- Renewable energy projects should be designed to maximize well-being and socio-economic benefits.
- More needs to be done to generate agency in all citizens through awareness raising, capacity-building, and participatory and inclusive approaches.
- A gender lens should be applied to enable inclusive decision-making and empower women in energy leadership roles.
- Direct support, technical assistance and funding should be facilitated to enable community energy in areas with the greatest need.
- Recognizing the social value of community energy, it is crucial to facilitate innovative financing options that de-risk projects and lower the cost of capital.
- Community energy should be an integral part of local energy security, climate adaptation and resilience strategies.
- Community knowledge should be leveraged to ensure that the environmental impacts of renewable energy projects are minimal.
- Collaboration, knowledge exchange and sharing of best practices can further support community energy initiatives.

In this new Report IRENA elaborates on the content already presented in its publication of 2021 [Community Energy Toolkit: Best practices for broadening the ownership of renewables](#) jointly developed by members of the Coalition's Working Group on Community Energy. Using a case study approach, the paper highlighted different ways communities actively participate in energy decision-making around the world and harness renewable energy's potential to deliver economic, social and environmental benefits for a just transition. The paper analyses 11 renewable energy initiatives from across the world, showcasing best practices and the various socio-economic impacts to societies, in order to inspire other communities. In particular, the case studies report practices ongoing in Canada, Mali, Australia, France, Japan, Spain,



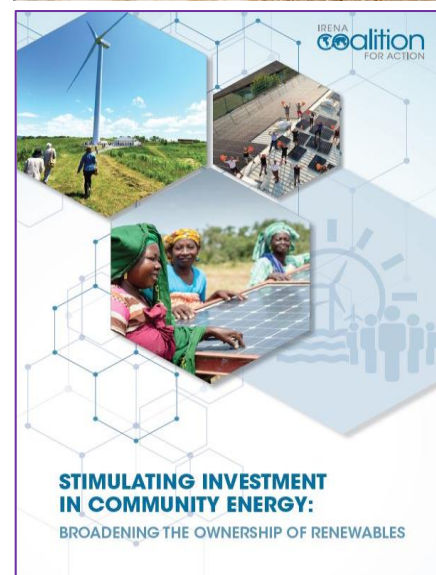
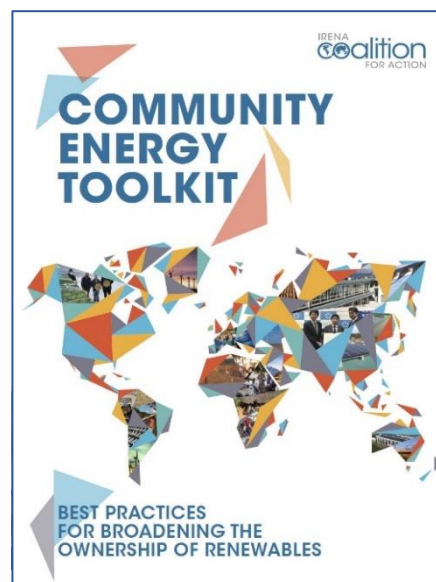
Nigeria, Tanzania, Germany, Timor-Leste and Suriname. The experiences presented are based on the use of different renewable energy sources (hydroelectric plants, solar systems, solar PV mini-grids, biogas), also differing in the scale adopted, the services assured, and the complexity of the actors involved, offering a broad vision of the potential of this innovative approach. IRENA estimates that the dissemination of case studies illustrating best practices remains essential to stimulate other communities to follow this approach. Not only community energy can create local socio-economic value, it also allows communities to achieve greater autonomy through direct control over financial and energy resources on the road to energy democracy.

[The IRENA Coalition for Action](#), established in 2014 and bringing together over 120 leading renewable energy players, is an international network with a vision to advance renewable energy in order to drive the global energy transition in line with the Sustainable Development Goal on energy. Within the Coalition, the *Community Energy Group* focuses on driving community energy investments and promoting policies that empower communities and citizens to participate in energy decision-making.

In 2018 the Community Energy Group released the paper [Community Energy: broadening the ownership of renewable](#) that summarizes the main characteristics of the Community Energy concept, the organizational methods, the main social and economic benefits, the main challenges. The paper underlines that economic and operational participation by communities in renewable energy projects is a key factor for building community acceptance and support for the development of renewable energy projects. Additional benefits of community energy can include: added value for the region through the establishment of a new economic sector, job creation and a local identity; increase in actor diversity resulting in shared decision-making and increased transparency in planning and construction; integration of citizens into sustainable economic processes; lower energy prices; acceleration of energy access and general renewable deployment rates; technology and business model innovation.

The experiences presented by the various documents of the Community Energy Group develop on a different scale and present different levels of complexity for the actors involved, the services rendered and for the variety of energy sources considered. Several initiatives, however, aim to enhance the renewable resource potential of their areas, expanding community management to diverse energy resources such as wind, solar, hydropower, geothermal, and biomass derived from agriculture or forestry. The development of local potentialities can enable the creation of a community energy system with a stronger impact on the territory in view of energy self-sufficiency, economic growth and new skilled jobs, while accounting environment and landscape values.

In 2024, IRENA also published the [Energy Progress Report – Tracking SDG 7](#). Jointly produced by IRENA in collaboration with the International Energy Agency (IEA), the United Nations Statistics Division (UNSD), the World Bank and the World Health Organization (WHO), this annual publication monitors global progress towards meeting Sustainable Development Goal (SDG) 7, which aims to ensure affordable, reliable, sustainable and modern energy for all. The Report highlights that “Despite improvements across indicators such as energy access, energy efficiency, renewable energy adoption, and international cooperation, the current pace of progress falls short of that required to achieve the SDG7 targets by 2030. Whilst international public financial flows in support of clean energy in developing countries rebounded in 2022 to USD 15.4 billion – an increase of 25% compared to 2021 – they



remain concentrated in certain geographies, with 80% of flows directed to just 25 countries. The SDG 7 custodian agencies emphasize the need for intensified efforts to expand energy access, scale up renewable energy deployment, enhance energy efficiency and substantially increase international financial flows to developing countries for clean energy projects. These efforts are crucial not only for realising SDG 7 but also for achieving the global objectives of tripling renewable energy capacity and doubling energy efficiency by 2030, as well as limiting global temperature rise to 1.5 degrees Celsius above pre-industrial levels by the end of the century. Interactive Dashboards and additional resources [are accessible on the Tracking SDG 7 website](#).

In addition to producing and disseminating documents on best practices in community energy, the Community Energy Group of the IRENA Coalition for Action continues to engage with stakeholders to scale up community energy initiatives around the world. A growing number of local communities, universities and organizations are moving towards creating and supporting direct management practices of local energy resources to promote a more sustainable development. Community-based energy systems are gaining attention among policymakers and practitioners as promising models for implementing a low-carbon and just energy transition.

To know more

[Report Community energy benefits: Powering universal wellbeing.](#)

[Publication Community_energy_benefits_wellbeing_2024.pdf](#)

[Energy Progress Report – Tracking SDG 7.](#)

[Community Energy Toolkit in irena.org](#)

[Coalition-for-Action_Community-Energy_2018.pdf in irena.org](#)

[Community-ownership models in irena.org](#)

[Stimulating Investment in Community Energy 2020 in irena.org](#)

[Empowering Communities to Reap the Multiple Benefits of Renewable Energy in irena.org](#)

[Community Energy System - an overview in ScienceDirect](#)

[Tracking SDG 7 Progress Towards Sustainable Energy in esmap.org](#)

[IRENA website](#)

[IRENA publications](#)

[IRENA Coalition for Action](#)

