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 IRENA 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.

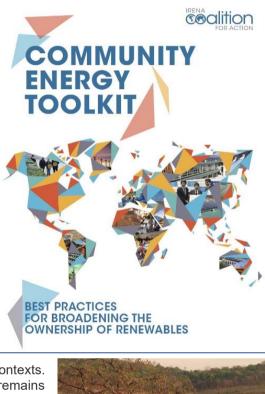
In 2021 IRENA published the <u>Community Energy Toolkit: Best</u> <u>practices for broadening the ownership of renewables</u> developed jointly by members of the Coalition's Working Group on Community Energy. Using a case study approach, the paper highlights different ways communities actively participate in energy decision-making around the world and harness renewable energy's potential to deliver economic, social and environmental benefits for a just transition.

In the introduction of the document, it is highlighted that despite record installations in renewable energy, the world is not on track to deliver on the energy transition required to limit the global temperature rise. To accelerate the transition to renewables and ensure it is just and fair, new approaches involving a wider variety of actors are needed, such as those proposed by the community energy experiences in progress in

many countries around the world reflecting their different local contexts. The dissemination of case studies illustrating best practices remains essential to stimulate other communities to follow this approach. Not only can community energy 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 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.

In the framework of these experiences, the choice of the energy sources and technology is driven by the local context, depending on policy supports for renewable energy technologies, the scale of the initiative, the availability of land for siting renewable energy projects, the renewable resource potential in the region. However, the paper underlines that Communities have amplified the benefits of their specific project in the area. Mini-grids installed have not only provided households and businesses in villages with access to energy, but also enabled farmers to innovate in the types of produce they can preserve and sell at good prices; a first solar farm can generate initiatives targeting food security and energy sovereignty;





renewable energy and energy efficiency projects can expand to fossil gas replacement and electric vehicle projects; the use of renewables can expand in decarbonizing other end-use sectors, such as transport.

<u>The IRENA Coalition for Action</u>, 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 <u>Community</u> <u>Energy: broadening the ownership of renewable</u> 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 a community economic and operational participation 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.

In 2020 the Community Energy Group released the paper <u>Stimulating</u> <u>Investment in Community Energy: Broadening the ownership of</u> <u>renewables.</u> Built on several case studies, the paper showcases policy measures and financing mechanisms that reflect best practices in community energy and offers recommendations to governments and financial institutions on how to accelerate community energy development. The experiences presented by the case studies are ongoing in Australia, Denmark, Germany, Japan, United Kingdom, United States, Philippines, Costa Rica and Guatemala.

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 experiences, however, are geared towards enhancing the overall renewable resource potential of their area, in view of extending community management to the use of many energy resources existing: wind power, solar radiation, hydropower, geothermal resources, bio-mass potential deriving from agricultural or forestry activities. etc. The development of the different local potentialities can allow to build a community energy system with a strongest impact on the territory in view of energy self-sufficiency, economic growth and new skilled jobs, while accounting environment and landscape values.

In addition to produce and disseminate 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

Coalition-for-Action_Community-Energy 2018.pdf in irena.org

Community-ownership models in irena.org

Stimulating Investment in Community Energy in irena.org

Empowering Communities to Reap the Multiple Benefits of Renewable Energy in irena.org

Integrating low-temperature renewables in district energy systems: Guidelines for policy makers in irena.org

Off-grid renewable energy statistics 2021 in irena.org

Fostering Livelihoods with Decentralised Renewable Energy: An Ecosystems Approach in irena.org

Community Energy System - an overview in ScienceDirect

Tracking SDG 7: The Energy Progress Report 2021

Tracking SDG 7 Progress Towards Sustainable Energy in esmap.org

IRENA website

IRENA publications

IRENA Coalition for Action









