



**International Year  
of Cooperatives**

Cooperatives Build  
a Better World



Committee for  
the promotion  
and advancement  
of cooperatives



International  
Cooperative  
Alliance

# Building a Better World Together: Cooperative Contributions to the SDGs

**Ensure access to affordable,  
reliable, sustainable and modern  
energy for all**





## SDG 7 COMMITS THE INTERNATIONAL COMMUNITY TO ENSURING UNIVERSAL ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE, AND MODERN ENERGY BY 2030.

Although considerable progress has been made, the world remains off track to meet this goal. In 2023, nearly 92 percent of the global population had access to electricity, renewable energy capacity per capita reached a record high, and international public financial flows to developing countries exceeded USD 21.6 billion. Yet more than 600 million people still lack access to electricity, and 2.1 billion continue to rely on polluting cooking fuels. Growth in renewables, improvements in energy efficiency, and the scale and distribution of investment remain uneven and insufficient.<sup>1</sup>

Widening regional disparities remain a defining challenge of implementation.<sup>2</sup> In sub-Saharan Africa, new electricity connections have barely kept pace with population growth, making decentralized solutions critical; indeed, between 2020 and 2022, mini-grids and stand-alone solar systems accounted for 55% of new connections in the region, underscoring both their effectiveness and the limits of centralized grid expansion. In South and Southeast Asia, electrification rates have improved significantly. Yet, progress on clean cooking lags, constrained by high upfront costs, weak distribution networks, and affordability barriers for low-income households. Latin America and the Caribbean have achieved near-universal access, but face mounting affordability pressures and growing climate-related reliability risks, particularly in hydropower-dependent systems vulnerable to drought. Across developing economies, high financing costs, perceived investment risks, and limited access to capital continue to slow deployment of modern energy systems, leaving hundreds of millions without reliable, affordable, or clean energy services.

In higher-income countries, while access is largely universal, energy poverty, price volatility, aging infrastructure, and rising demand from electrified transport, heating, and data centers are placing new strains on system resilience. Across Europe, through different mechanisms from Power Purchase Agreements (PPAs)<sup>3</sup> with local municipalities or industries, or housing renovation and energy sharing, citizen-led approaches have helped communities navigate repeated energy price crises, including those triggered by Russia's war of aggression on Ukraine.<sup>4</sup> For example, the Greek energy cooperative CommonEn, founded in 2021 in Ioannina, secured enforcement of net metering by the local supplier, significantly reducing electricity bills for its members.<sup>5</sup> It also demonstrates inter-cooperative solidarity by supplying free electricity to vulnerable households.

These trends suggest that the primary obstacle to achieving SDG 7 is no longer technological feasibility, but implementation capacity, institutional design, and equitable investment distribution. Energy infrastructure and capital flows remain concentrated in high-income regions, while many low- and middle-income countries lack the regulatory stability, long-term financing instruments, and locally anchored institutions required to expand and manage modern energy systems.<sup>6</sup> As a result, rural and peri-urban communities in Africa and parts of Asia remain underserved, while affordability and resilience challenges are intensifying even in advanced economies. Bridging this gap requires delivery models that combine infrastructure investment with community ownership, financial sustainability, and long-term accountability. Energy and electric cooperatives are well positioned to contribute as locally rooted, member-driven partners in advancing affordable and clean energy for all.

## THE COOPERATIVE DIFFERENCE: HOW COOPERATIVES ADVANCE AFFORDABLE AND CLEAN ENERGY

Cooperatives play a distinct and strategic role in advancing SDG 7 by addressing structural gaps in energy access, affordability, and the clean-energy transition through democratic ownership and locally anchored service delivery. Unlike investor-owned utilities, cooperatives are established to serve their members rather than maximize shareholder returns. This universal-service orientation makes them particularly effective in regions historically overlooked by commercial providers. In Bangladesh, the Palli Bidyut Samity (PBS) rural electrification model, comprising 80 locally governed distribution cooperatives, now delivers electricity to more than 100 million people, roughly half of the national population, transforming rural livelihoods and productivity.<sup>7</sup> In the United States, more than 900 rural electric cooperatives created during the New Deal era now serve approximately 42 million people across 2,500 counties and maintain around 42 percent of the country's distribution lines. Operating on a cost-of-service, not-for-profit basis, U.S. cooperatives return excess revenues to their member-owners, with over US\$1.3 billion in capital credits in recent years, thereby stabilizing tariffs and reinforcing long-term system reliability.<sup>8</sup>

- 1 Tracking SDG 7: The Energy Progress Report 2025: <https://www.irena.org/Publications/2025/Jun/Tracking-SDG-7-The-Energy-Progress-Report-2025>
- 2 United Nations, The Sustainable Development Goals Report 2025: <https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf>
- 3 Power Purchase Agreements (PPAs) are long-term (5–20 year) contracts between electricity generators and buyers (utilities, businesses, or governments) to purchase renewable energy at fixed, pre-negotiated prices.
- 4 The diamond hidden in the rough? Energy communities and the EU's Action Plan on Affordable Energy (February 2025): <https://www.rescoop.eu/news-and-events/news/the-diamond-hidden-in-the-rough-energy-communities-and-the-eu-action-plan-on-affordable-energy>
- 5 CommonEn: A Greek model for tackling energy poverty, Euronews (06 Mar 2025), <https://www.euronews.com/my-europe/2025/03/06/commonen-a-greek-model-for-tackling-energy-poverty>
- 6 International Energy Agency. World Energy Outlook 2024: <https://www.iea.org/reports/world-energy-outlook-2024>
- 7 National Rural Electric Cooperative Association (NRECA). Bangladesh – Secret for Success: <https://www.nrecainternational.coop/bangladesh-secret-success/>
- 8 National Rural Electric Cooperative Association. Co-op Facts & Figures: <https://www.electric.coop/electric-cooperative-fact-sheet>

The World Bank has similarly recognized decentralized, community-anchored delivery models, including mini-grids and stand-alone systems, as among the most effective pathways to reach the remaining unelectrified populations.<sup>9</sup>

Energy cooperatives also strengthen affordability and financial sustainability by mobilising local investment into solar, wind, hydro, and biogas projects, ensuring that energy production remains community-owned and socially accountable. By reinvesting revenues into maintenance, modernization, and expansion rather than extracting profits, they moderate price volatility and enhance long-term viability. France's Enercoop exemplifies this model in practice: structured as a network of 10 regional cooperatives, it supplies 129 MW of 100% renewable electricity to 58,000 consumers while reinvesting surpluses for member benefit and to support further energy transition initiatives. In Costa Rica, four renewable energy cooperatives —Coopelesca, Coopeguanacaste, Coopesantos R.L., and Coopealfaroruiz—founded between 1965 and 1972, were established to bring electricity to rural and remote communities that had been historically underserved by traditional providers. They are now united under the Conelectrica Consortium and represent around 200,000 members. They generate power from diversified renewable sources, including hydropower, solar, and wind, distribute electricity nationwide, and reinvest surpluses into local sustainable development initiatives. Beyond expanding clean energy access, these cooperatives promote environmental stewardship and climate action by engaging communities in conservation efforts and awareness-raising. Their cooperative model ensures inclusive service delivery, local ownership, and tangible community benefits, reaching even the most remote households while strengthening resilience and sustainable development.<sup>10</sup>

In Malawi, the Clean Energy Cooperatives Program (CECP), implemented by NRECA International, aimed to establish five community-owned clean energy cooperatives in rural areas as part of the country's push for universal electrification by 2030. CECP focuses on developing viable project portfolios, building local technical and managerial capacity, securing financing, strengthening regulatory frameworks, and partnering with the Ministry of Energy to institutionalize the model. Rooted in the Seven Cooperative Principles, the initiative prioritizes service quality, sustainability, and community ownership over profit, positioning rural electric cooperatives as a practical pathway to self-reliance and long-term energy access.<sup>11</sup> These examples demonstrate that cooperative ownership models can deliver reliable and modern energy services in contexts where private capital is limited or risk-averse.

In the renewable energy transition, cooperatives anchor local ownership, build public trust, and retain economic value within communities. Examples across Germany, Denmark, and

Ireland demonstrate how community-led energy projects can scale nationally, strengthen public acceptance of renewables, generate local employment, and retain economic value within communities, showing that cooperative governance is not only socially inclusive but also technically and financially viable in advancing universal, sustainable, and affordable energy access. Germany's citizen energy movement, in particular, illustrates the scale such models can achieve: by 2016, citizens and farmers collectively owned approximately 42 percent of the country's renewable generation capacity through more than 1,000 energy cooperatives.<sup>12</sup> Community-owned renewable projects consistently generate higher local economic returns than externally owned developments, as revenues are reinvested locally and procurement favors regional businesses. By embedding energy infrastructure within democratic governance structures, cooperatives enhance social acceptance, reduce opposition to renewable installations, and strengthen long-term operational stability.

Beyond energy supply, cooperatives are playing a growing role in demand-side management, energy efficiency, the electrification of end uses, and clean cooking transitions. Trusted local institutions are uniquely positioned to facilitate the adoption of efficient appliances, electric mobility, irrigation pumps, cold-storage systems, and clean cooking technologies through collective financing and member engagement. In higher-income contexts, cooperatives are also protecting consumers amid rapid load growth. In the United States, several generation and transmission cooperatives negotiating data-center interconnections have required large commercial loads to finance 100 percent of necessary grid upgrades, shielding rural households from disproportionate rate increases while strengthening system resilience. In Portugal, the Cooperativa Eléctrica de Loureiro (CEL) is an almost centenary limited cooperative company that, since 1933, has guaranteed the supply of electricity to the parish of Loureiro, in the north of Portugal. Responsive to legislative and technological changes in the energy sector, CEL operates 21 transformer stations that distribute energy to homes, commerce, and industry, expanding as the population and industrial activity in Loureiro increase. By establishing environmental criteria for suppliers, the coop prioritises the responsible use of natural resources, implements photovoltaic systems for self-consumption, reduces CO<sub>2</sub> emissions, and contracts 100% green energy for its industrial stations.

Taken together, these examples demonstrate that cooperatives are not peripheral actors but system-level partners capable of expanding access, enhancing affordability, strengthening resilience, and accelerating the clean-energy transition. Their member-owned, community-centered structure positions them as practical and scalable instruments for delivering SDG 7 in both underserved and advanced energy markets.

9 World Bank. Tracking SDG 7: The Energy Progress Report 2025: <https://trackingsdg7.esmap.org/downloads>

10 Renewable energy cooperatives in Costa Rica: [https://coops4dev.coop/en/c4dev\\_resources/aroundtheworldcoop/costarica](https://coops4dev.coop/en/c4dev_resources/aroundtheworldcoop/costarica)

11 Malawi Clean Energy Cooperatives Program, NRECA International, <https://www.nrecainternational.coop/malawicecp/>

12 International Energy Agency. Germany's renewable energy cooperatives: <https://www.iea.org/policies/17801-germanys-renewable-energy-cooperatives>

## CASE STUDIES FROM AROUND THE WORLD



### Community-Owned Energy for Last-Mile Access and Productive Use

In sub-Saharan Africa, cooperatives are emerging as key partners for last-mile energy. In Liberia, the [Totota Electric Cooperative \(TEC\)](#) demonstrates how community-owned energy models can directly advance SDG 7 in fragile and underserved contexts. Established as the country's first community-owned rural electric cooperative with technical support from NRECA International, TEC developed and operates a solar-plus-storage hybrid microgrid serving households, small businesses, and commercial refrigeration facilities in Totota. Designed as a locally managed micro-utility, the system delivers reliable and affordable electricity while strengthening local economic activity, including cold storage services that support food preservation and income generation. Notably, within a short operational period, the cooperative achieved financial self-sufficiency, covering its operating costs and building reserves, illustrating that decentralized, member-owned energy systems can be both socially impactful and economically sustainable. The Totota model highlights how cooperatives can serve as effective last-mile delivery partners in expanding modern energy access across sub-Saharan Africa.

Across Ghana, Kenya, and Uganda, rural electrification cooperatives manage mini-hydro and solar systems beyond the reach of national grids. In Tanzania, cooperatives are integrating renewables into agricultural value chains: dairy unions use solar cooling, rice cooperatives operate solar irrigation pumps, and cashew cooperatives deploy solar drying units to reduce losses and increase value addition. In Tanzania, cooperatives are

integrating renewables into agricultural value chains: dairy unions use solar cooling, rice cooperatives operate solar irrigation pumps, and cashew cooperatives deploy solar drying units to reduce losses and increase value addition.

### Cooperative Utilities Delivering Scale and Affordability

In the United States, the [National Rural Electric Cooperative Association \(NRECA\)](#) represents more than 900 rural electric cooperatives that were originally established in the 1930s to electrify areas that investor-owned utilities deemed unprofitable. Today, these cooperatives serve approximately 42 million people across 2,500 counties, maintain roughly 40–42 percent of the nation's electric distribution lines, and operate on a not-for-profit, cost-of-service basis, returning margins to members in the form of capital credits. This model has ensured sustained reinvestment in infrastructure modernization, grid resilience, renewable integration, and increasingly, protections for rural consumers amid rising large-load demands such as data centers.

In Bolivia, the [Cooperativa Rural de Electrificación \(CRE\)](#) in Santa Cruz serves approximately 800,000 consumer-members under a transparent, cost-based tariff structure. Revenues are reinvested in expansion and service quality, demonstrating how cooperative governance can deliver reliable, financially sustainable energy services at scale.



### Cooperative Leadership in Renewable Transition

[CLIMBS Life and General Insurance Cooperative](#), an ICA-AP member organization in the Philippines, is advancing inclusive and resilient energy by developing the Renewable Energy Cooperative of the Philippines (RECoop).

RECoop is a secondary cooperative dedicated to providing affordable, high-quality renewable energy solutions and prioritizing underserved communities. Guided by cooperative principles, they aim to empower communities, promote economic inclusivity, and support environmental sustainability. This initiative stemmed from the community conversations that arose during the Inaugural Global Cooperative Climate Summit held in Bangkok, Thailand, last November 2024. The growing demand for electricity and solar energy has tripled, as many remote areas have little to no access to electricity grids, leading to geographic isolation. Fossil fuels and economic constraints are also pressing issues for energy supply and stability. This essential step towards transformation has led many cooperative leaders to take charge and invest in renewable energy resources. Pivoting towards greener, cleaner sources of energy, the ReCO-OP aims to provide easy, affordable access to far-flung areas and rural communities with little to no energy supply. Learning from the previous experiences of the PHCCI-Dumaguete, one of CLIMBS' member-owners, its solarization project has achieved savings of about 30-40% on its electricity bill using solar energy.

In Australia, power has been historically distributed through private distributors. The majority of electricity has been generated from burning coal, despite Australia being blessed with vast desert regions and some of the longest sunshine hours in the world. Australia recently unveiled new decarbonisation targets, including a move to net zero before 2050, providing significant opportunities for a clean energy future. Energy cooperatives are helping drive the shift towards renewables and are providing greater value to their members as a more secure, long-term asset. The collective purchasing power created by individuals coming together through an energy cooperative returns control to people and helps to drive down costs. Cooperative Power, or CoPower for short, is a community-based initiative operating across large parts of Australia, bringing a unique not-for-profit, democratic model that redistributes profits back to the people. CoPower invests in community renewable energy (like solar plants, wind energy, battery storage, and home energy efficiency).



## Citizen Energy Communities Driving the Transition

Across Europe, energy cooperatives and citizen energy communities have emerged as powerful drivers of SDG 7 implementation, combining democratic ownership with large-scale deployment of renewable energy, while optimising the simultaneous production and consumption at the local level. Under the [EU Clean Energy Package](#), citizen energy communities are formally recognized, providing a supportive policy framework that has enabled rapid growth. **REScoop.eu**, the European federation of energy cooperatives founded in

2011, now brings together 121 member organizations across 25 countries, representing around 2,500 renewable energy cooperatives and approximately 2 million citizens. In line with the **EU Renewable Energy Directives**, Italy has been increasingly investing in the energy transition, defining specific **incentives** for the creation of renewable energy communities (REC). Although the Italian cooperative legal framework offers different legal forms for creating such communities, including associations and participatory foundations, the cooperative model is clearly emerging as the most effective in ensuring citizens' ownership and economic participation, especially because members can realize joint investments and promote energy democracy. The blooming of already over 60 REC members of **Legacoop** in the last couple of years responds to the SDG targets 7.1 (universal access to affordable, reliable, and modern energy services)

and 7.2 (the *share of renewables in the energy mix*). Through its international cooperative development structure, Haliéus, Legacoop has been advancing collaboration with public and private actors in Cuba, where the current energy crisis is calling for an urgent renewable and inclusive energy transition.

In Flanders (Belgium), the energy cooperative [Ecopower](#) counts 72.000 members that invest together in wind turbines, solar panels, and fossil-free heating. 100% green energy is provided as a service to over 60,000 members. In 2022, while electricity prices were skyrocketing across Europe, Ecopower kept its prices as stable and low as possible, supplying electricity at a lower price than any other energy supplier in Belgium. This was made possible not only by its commitment to locally producing community-owned renewable energy, but also by its determination to prioritise members' interests over profit.

## CHALLENGES AND OPPORTUNITIES

Energy cooperatives are uniquely positioned to advance SDG 7, delivering affordable, reliable, and resilient energy, yet structural barriers limit their scale, integration, and impact.

**Regulatory barriers** often favor large utilities, leaving cooperatives struggling to obtain licenses, grid access, or fair procurement terms. This limits their ability to develop generation assets, operate distribution networks, or participate in emerging energy markets such as local trading and demand response.

**Opportunity:** Governments can explicitly recognize cooperatives in energy laws, streamline permitting, reserve capacity for community projects, and guarantee fair grid access, unlocking widespread decentralized generation and system resilience.

**Access to finance and technical support** remains a critical constraint. Traditional lenders favor large, collateral-backed projects, sidelining cooperatives that deliver long-term social and economic value. Many cooperatives also lack training, technical assistance, and digital tools to manage complex energy systems.

**Opportunity:** Development banks, donors, and public authorities can expand concessional and blended finance tailored to cooperatives, while leveraging established SACCO networks to unlock community-level capital for

renewable energy. Coupled with sustained capacity-building in governance and operations, this would enable cooperatives to invest in renewables, district heating, and mini-grids, clean cooking, and energy efficiency initiatives, while ensuring long-term financial sustainability.

**Integration into national energy plans** is often limited, leaving cooperatives at the margins of renewable energy strategies, heating, cooling, and clean cooking initiatives, and energy transition roadmaps.

**Opportunity:** Formal inclusion of cooperatives as implementers in policy design, rural grid expansions, and renewable auctions strengthens coordination, leverages local expertise, and ensures equitable last-mile delivery.

**Demand-side and efficiency roles** of cooperatives are underutilised. Cooperatives can drive energy efficiency, the transition to renewable thermal energy, the adoption of clean cooking, and demand-response services, yet policy rarely taps this potential.

**Opportunity:** Explicitly empowering cooperatives to lead demand-side programs can reduce system costs, improve grid stability, and expand access through trusted, community-based engagement.

By addressing regulatory, financial, planning, and operational barriers, energy cooperatives can scale rapidly, deliver inclusive energy services, and serve as trusted partners in achieving universal, sustainable, and affordable energy access under SDG 7.

## CALL TO ACTION

To accelerate progress toward SDG 7, governments, development partners, and multilateral institutions should strengthen the enabling environment for energy cooperatives and recognize them as key delivery partners:



### 1. Integrate cooperatives into national energy strategies.

Include cooperatives in renewable energy plans, thermal energy and clean cooking initiatives, renewable energy roadmaps, and grid expansion programs. Consult cooperative networks in policy design and designate them for last-mile service delivery to ensure coordinated, inclusive, and efficient implementation.



### 2. Expand access to cooperative-focused finance.

Develop concessional loans, blended finance facilities, revolving funds, loan-to-grant schemes, guarantees to de-risk lending by banks, and results-based funding tailored to cooperatives. Support investments in renewable generation, mini-grids, transmission, storage, renewable thermal energy supply chains, and energy efficiency programs while ensuring long-term financial sustainability.



### 3. Reform regulatory frameworks.

Adjust licensing, tariff-setting, grid-access, and procurement rules to accommodate community-scale projects and cooperative ownership. Simplified permitting, guaranteed grid connections for citizen-led projects, and reserved auction capacity will enable cooperatives to participate fully in energy markets.



### 4. Invest in capacity building and technical support.

Provide ongoing training in governance, operations, management, and digital systems. Strengthen cooperatives' ability to plan, operate, and adapt to evolving energy systems, ensuring reliability, efficiency, and resilience.



### 5. Empower cooperative-led demand-side solutions.

Enable cooperatives to lead energy-efficiency programs, the electrification of productive uses, bulk clean cooking initiatives, local flexibility services, and demand-response mechanisms. Leveraging cooperatives' local knowledge reduces costs, improves grid stability and energy security, and broadens access to renewable energy.



### 6. Strengthen data, monitoring, and visibility.

Integrate cooperative energy indicators into national reporting, SDG tracking, and energy planning. Elevating cooperatives as core actors ensures evidence-based policymaking and recognizes their role in delivering inclusive, affordable, and sustainable energy solutions.



This brief is part of the *Building a Better World Together: Cooperative Contributions to the SDGs* series, produced by the [Committee for the Promotion and Advancement of Cooperatives \(COPAC\)](#) and the [International Co-operative Alliance \(ICA\)](#), together with its regional organizations: [Cooperatives Europe](#), [ICA Africa](#), [ICA Americas](#), and [ICA Asia Pacific](#).

This series aims to raise awareness, promote growth, and inspire leadership in the cooperative movement. This series explores how cooperatives drive progress toward the 17 Sustainable Development Goals (SDGs) by fostering economic inclusion, democratic participation, and social solidarity for over one billion members worldwide.

Established in 1971, the Committee for the Promotion and Advancement of Cooperatives (COPAC) is a multi-stakeholder partnership that champions and supports people-centered and self-sustaining cooperative enterprises. Its current members include the International Cooperative Alliance (ICA), the International Labour Organization (ILO), the United Nations Department of Economic and Social Affairs (UNDESA), the Food and Agriculture Organization of the United Nations (FAO), and the International Trade Centre (ITC).

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