



Feature: Public Support for Renewables

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CO-OPERATIVE RENEWABLE ENERGY CAMPAIGNS, MAURITIUS



In Mauritius, a coalition of groups formed the People's Cooperative Renewable Energy Society in 2013 and launched a Power Shift Campaign to accelerate the transition to renewables. The campaign challenges the privately owned, non-renewable sector by providing co-operative solar energy alternatives that unemployed farmers can use to power greenhouses and improve local food production. The campaign's actions led to the cancellation of plans for a new coal plant, and have improved government transparency by pushing for the creation of a national commission to review Mauritius' energy policies.

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FEATURE: PUBLIC SUPPORT FOR RENEWABLES

KEY FACTS

- The extent to which renewables gain public support and are able to attract adequate private or public investment is key to their further uptake.
- Although individuals and some groups have expressed concerns about specific renewable energy projects, opinion polls indicate strong public support for the growth of renewables.
- Governments have sought to improve public participation, strengthen regulatory control and share economic benefits with host communities to further build citizen support for renewable energy projects.

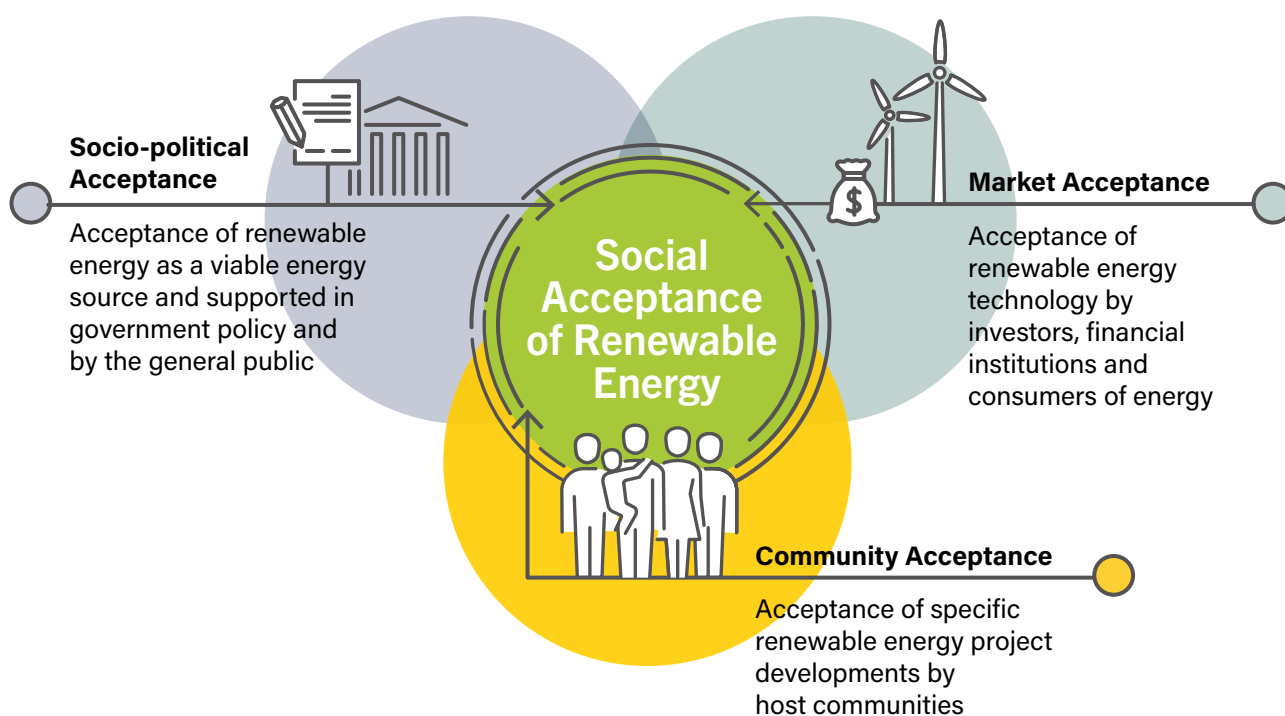
A complex array of technological, economic, environmental and social factors can affect the extent and pace of renewable energy deployment. However, also critical is how these technologies are perceived by society. In 2019, global climate strikes and opinion polls revealed rising public demand for a shift away from fossil fuels; at the same time, opposition from local communities limited the implementation of renewable energy projects in some regions. The extent to which renewables gain public supportⁱ and are able to attract adequate private or public investment is a key factor in increasing their deployment. Consideration of the range of reactions related to the public response to renewables can help build support for these technologies and ultimately encourage broader inclusion and participation.

Although the views of local communities are an important factor in the uptake of renewables, they are only one part of a broader condition of social acceptance of renewables that also includes market and socio-political dimensions.ⁱ (→ See Figure 61.) Each of these three dimensions can influence the overall acceptability of renewable energy, and each has the potential to stimulate a virtuous or detrimental cycle of support or opposition. Rather than looking at public support for renewables solely through the lens of concepts such as “NIMBYism”ⁱⁱ (→ See Box 1), a more holistic approach includes community engagement, financial measures, political leadership and market confidence.²

i For the purposes of this chapter, “public” is defined, in most cases, as all citizens/residents and does not include specific private or state energy interests or non-governmental organisations; the public often is distinguished from those most directly affected by energy projects, which are referred to here as “host communities”.

ii NIMBY (“Not In My Backyard”) and NIMBYism refer to the behaviour of a person or group of people that objects to a development project (such as a renewable energy plant) being built near to where they live.

FIGURE 61. Dimensions of Social Acceptance of Renewable Energy



Source: See endnote 1 for this chapter.

Many of the factors that shape the rate and nature of renewable energy uptake depend on local, regional and national contexts. They also include issues such as the availability of renewable resources (such as solar and wind energy), environmental constraints (such as settlement patterns or protected landscapes), political conditions, planning and environmental governance, and procurement and financial arrangements.³ Likewise, the extent and features of public support vary depending on demographics, socio-economic characteristics and the local/national context, which can be influenced by a complex set of issues.⁴



FACTORS BEHIND PUBLIC SUPPORT FOR RENEWABLES

LANDSCAPE OF REACTIONS TOWARDS RENEWABLE ENERGY

Although individuals may express concerns about specific renewable energy projects, the public generally has shown support for renewables based on the multiple benefits that these technologies provide.⁵ For example, people may recognise that renewable energy brings health improvements (through reduced pollution), greater energy reliability and resilience, increased energy security, climate change mitigation and the alleviation of energy poverty.⁶ In specific locations, residents may appreciate the job creation and other economic opportunities that come from renewables, which are necessary for an inclusive and just energy transition.⁷ (→ See Sidebar 2.)

In the past few years, opinion polls have consistently indicated strong public support for the expansion of renewables. In a 2019 survey in the European Union (EU-28), 90% of respondents agreed that the region should encourage greater investment in renewable energy, and participants showed widespread support for all renewable technologies.⁸ A poll in Indonesia, Pakistan, the Philippines, South Africa, Turkey and Vietnam identified a strong preference (61-89%) for “clean energy”, with solar power receiving the highest positive responses.⁹ Strong preferences for renewables also are visible in Australia, Canada, France, Switzerland and the United States.¹⁰ Meanwhile, in a 2017 survey of more than 26,000 people across 13 countries in Asia Pacific,

BOX 1. Social Acceptance and NIMBYism

Often, local disputes about proposed development projects, including new renewable energy infrastructure, are associated with the concept of NIMBY, or “Not In My Backyard”. The term is used to imply that individuals opposing a development are acting out of self-interest – in other words, while they may recognise the benefits of the infrastructure (implied by societal support for technologies, climate response, etc.), they do not want projects sited close to their residences because of perceived impacts and costs to themselves.

Many studies, however, assert that the NIMBY label is unhelpful, pejorative and a myth. The concept is criticised for failing to explore the actual motivations of individuals opposing a development, the strong influence of wider institutional arrangements for regulating such developments and the value of competing concepts such as attachment to place. The term NIMBY also is “weaponised”, as it implies that any objection to a proposed project is due to the irrational and selfish attitude of host communities, rather than to issues related to project design or the decision-making process. Thus, use of the term allows developers and regulators to displace responsibility for community acceptance.

In some cases, the use of “NIMBY” can increase conflict over proposed developments, as the host community often deeply resents the implication that a dispute over a project is because of them. This outcome can reduce the conditions for effective dialogue and community engagement, which have been shown to offer more effective responses to such situations.

Source: See endnote 2 for this chapter.



Europe and North America, 82% of respondents – independent of age, education and political ideology – believed that it was important to create a world “fully powered” by renewable energy.¹¹

Despite this support, many individual renewable energy projects – including wind, solar, bioenergy, geothermal and hydropower plants – still face opposition from local host communities. This creates an apparent “**social gap**” between strong overall support for renewables and the disapproval with specific proposed projects expressed at a local level.¹² Although the social gap varies depending on the context, project scale and type of technology being deployed, policy makers are faced with the challenge of developing an appropriate response to this gap. To better understand the nature of public support for (or opposition to) renewable energy projects at the local, national and global levels, the public’s reaction has to be considered within the wider context of public engagement with energy and related issues, including climate action.¹³

Public engagement with renewables reflects a broad continuum – from collective mass movements to individual action – and it can either align or conflict with wider energy objectives. The landscape of social responses to renewables illustrates a wide range of aspirations and motivations, including concerns about technologies, projects or processes; visions for the future; and/or inertia and resistance to change. Reactions can range from apathy to “strongly against” or “strongly in favour”, and can occur at scales from a societal level (for example, global climate action) to a local level (relating to individual projects).

At a **societal level**, global climate strikes and litigation often are aligned with implicit support for renewable energy. During 2019, millions of people participated in international strikes and protests in more than 4,500 locations across 150 countries, demanding political action on climate change.¹⁴ In addition, more than 1,300 climate lawsuits were filed around the world between 1990 and 2019 to oppose the ongoing reliance on fossil fuels, representing civil society efforts to hold companies and governments accountable for supporting activities that exacerbate the climate challenge.¹⁵ Most of these disputes – which arose not just in the United States (where they have been most common) but increasingly in Asia, Europe and Latin America – target national governments, but some also target private companies for their contribution to climate change.¹⁶

At the same time, public reactions at a societal level can hinder the development of renewables, particularly when perceptions of unfairness or a lack of transparency lead people to oppose these technologies. In France and Iran, protests emerged in late 2018 and 2019, respectively, against government energy policies that disproportionately impacted lower-income households and adversely affected living standards.¹⁷ Fuel taxation efforts in France, for example, may have stimulated negative public perception of environmentally driven policies and projects, a response that manifested in the so-called yellow vest protests.¹⁸ In Canada, the implementation of carbon taxes (which generally lead to net economic benefits) also triggered ideological opposition, resulting in the election of provincial governments that rejected renewable energy policies and projects.¹⁹

Industry actions can lead to opposition to renewables as well, for example if companies lack transparency or engage in real or perceived violations of human rights, labour rights, (indigenous) land rights and others.²⁰

The neglect of socially responsible and ethical practices in renewable energy manufacturing and project development could result in broad societal opposition to the industry, diminishing the prospects of renewables in certain regions as well as globally.²¹

At the **local level**, movements for energy sufficiency and conservationⁱ have spread around the world since the early 2000s, as both community energy projects and the number of prosumersⁱⁱ continue to grow. In Australia, Europe, and North America, and increasingly in Asia and Latin America, communities have established “transition towns” aimed at boosting energy self-sufficiency (often through renewables) to counter the effects of climate change and economic instability.²²

Although community energy initiatives have existed since the mid-19th century, it was not until the late 1970s that these efforts became more associated with modern renewables, beginning in Denmark. (→ See Feature chapter in GSR 2016.) On the Danish island of Samsø, for example, community financial participation has played a major role in the development of renewable energy sources.²³

At the same time, host communities may be sceptical of, or oppose, certain forms of infrastructure development (transport, commercial and even residential) because of the perceived

Opinion polls have consistently indicated **strong public support** for the expansion of renewables.



impacts on the character of a neighbourhood or landscape.²⁴ Renewable energy projects in particular may trigger concerns because of their proposed locations – for example, wind projects sited on relatively untouched landscapes, or the presence of multiple dispersed renewable energy projects within a host community (as opposed to a single large, thermal (e.g., fossil fuel) power station that is typically out of sight).

The term “NIMBYism” has been used to depict opposition by individuals or grassroots organisations to local renewable energy projects; however, this type of dissent commonly reflects ineffective consent-building and project development processes, rather than any ideological objection by locals.²⁵ Still, such opposition has taken root against many different types of renewable energy projects, including geothermal, wind, solar, hydropower and production of biofuels.²⁶ Over the last decade, there has been a growing recognition that effectively engaging local communities around renewable energy projects is critical for gaining sufficient public support, and necessary for larger objectives of decarbonising the energy supply.

INFLUENCING FACTORS AND THE ROLE OF STAKEHOLDERS

A wide range of complex and inter-related **factors** can influence the public's perception of local or regional renewable energy projects, often based on different perceptions of justice.²⁷ These could be generalised as follows:

- *Concerns about health and environmental impacts.* Potential impacts include the noise or shadow flicker from wind energy projects, emissions from bioenergy or geothermal plants, the disruption of landscapes, land acquisitions and impacts on biodiversity. To respond to concerns about environmental justice, some of these impacts can be ameliorated through effective project design, planning regulations and other environmental safeguards.
- *Perceptions of the distribution of economic costs and benefits.* Some local communities have expressed concerns that renewable energy project developers are securing economic gain at the expense of local amenities, farming or fishing assets, or residential property values. Responses to these concerns have included the creation of community benefit funds, local procurement and employment policies, and encouraging community investment in a project to create a sense of distributive justice.
- *Perceived fairness of the consenting process.* Some communities have argued that decision making for renewable energy projects has not been transparent or that public engagement has not been appropriate. In such cases, more effective community engagement, information giving and openness can help to create a better atmosphere of trust and generate a sense of procedural justice.

i See Energy Efficiency chapter and Glossary.

ii A prosumer, in the context of the energy sector, is an individual or entity that both generates and consumes energy. Many different categories of prosumers exist, including residential, commercial and industrial scale, but the most common is homeowners who install solar PV on their rooftops. See Systems Integration chapter and Glossary.

These factors are managed and perceived differently by the range of key **stakeholders** in the energy system. Among the stakeholders that have crucial roles in the social acceptance of renewable energy are national governments, cities and municipal regulatory bodies, developers, energy trade bodies and host communities.

- *National governments* are responsible for meeting overall energy goals, including renewable energy targets. They are central to fostering socio-political and market acceptance of renewables by being primarily responsible for setting strategic policy directions, aligning energy policy with other objectives, and deploying financial instruments to support renewable energy and enabling technology uptake. National governments also frame the standards and regulatory arrangements around renewable energy projects, which play a critical role in community acceptance. In some countries, state or provincial governments can have a similar supporting role.
- *Municipalities and other regulatory bodies* often are responsible for local consenting permits (such as planning permissions) and planning policy, and for ensuring that the environmental and socio-economic impacts of projects are minimised. In some cases, these bodies have the capacity to develop economic instruments, which some have used to bring energy under local democratic control.²⁸
- *Developers* have the ability to propose high-quality projects at appropriate sites and to act with transparency and integrity towards host communities.
- *Energy trade bodies* have a critical role in ensuring effective standards across the renewable energy sector, issuing guidance and protocol, and sharing best practices.
- *Host communities* can be given the capacity to participate appropriately in consenting and engagement processes. Through such engagement, they can articulate their concerns about projects in their communities and better ensure that their perspectives and needs are taken into account.



LEVERS TO BUILD PUBLIC SUPPORT AND ENCOURAGE ACTION

As governments have become aware of the impacts that community concerns can have on renewable energy development, they have sought to pursue more effective responses. These include improving public participation, strengthening regulatory control (such as through more detailed planning policy) and making efforts to better share the economic benefits with host communities (for example, through benefit funds, local share offers and community-run energy projects).

Around the world, a wide range of initiatives seek to advance citizen support for renewables, including awareness campaigns, policy and regulatory measures, and new approaches to participation, control and ownershipⁱ.

AWARENESS CAMPAIGNS

Campaigns to **raise awareness about renewable energy technologies** are important measures to build citizen support and have been employed widely in recent years, often at the national level. Such campaigns typically aim not just to increase awareness, but also to **encourage changes in energy use** and "climate-friendly" behaviour. For example, a national energy transition awareness project in Mauritius aims to increase the presence of women in the renewable energy sector, and the Netherlands' Save Energy Now! campaign encourages residents to increase energy efficiency at home and to install rooftop solar PV and other domestic renewables.²⁹ Some campaigns target a global audience: for example, the Global Bioenergy Partnership aims to both facilitate the development of bioenergy and raise awareness of the technology worldwide.³⁰

Governments also can raise awareness of the benefits of renewables and energy efficiency by making **declarations on the "climate emergency"** or "climate crisis". Such declarations have become more frequent in recent years and often are combined with efforts to reduce reliance on fossil fuels. In November 2019, the EU declared a climate emergency and emphasised the need to reduce greenhouse gas emissions and phase out fossil fuel subsidies in the region by 2050.³¹ As of April 2020, at least 1,490 jurisdictions in 29 countries worldwide, covering a total population of 822 million, had issued climate emergency declarations.³²

In addition, many non-governmental organisations have initiated campaigns to raise awareness about climate change, stressing the urgent need for a renewable energy transition. Numerous student-led groups and other campaigns have called on corporations, governments and others to divest from fossil fuels.³³ In late 2019, Greenpeace Australia launched REenergise, one of its biggest campaigns yet, to address carbon dioxide emissions in Australia and to urge the country's largest energy-consuming companies to switch to 100% renewable electricity use.³⁴

ⁱ This chapter provides examples of only a small selection of initiatives; a more extensive list can be found in the GSR 2020 data pack at www.ren21.net/GSR.

POLICIES IMPACTING PUBLIC ENGAGEMENT WITH RENEWABLES

A range of public bodies have adopted policies and other regulatory measures that enable civic and market actors to engage in the development and procurement of renewable energy. These include efforts designed to encourage energy efficiency, new forms of energy ownership and "green consumerism"ⁱ to help achieve national, state and local climate and energy targets, based on complex market incentives and measures to encourage grassroots development of renewables.

Feed-in tariff (FIT) schemes have been conducive to renewable energy development not only at a large scale but also at the community and residential levels.³⁵ Such efforts have involved households, small and medium-sized businesses, energy co-operatives and municipalities, with benefits for energy democracy, citizen participation and social acceptance of renewables.³⁶ Since the early 2010s, however, interest has shifted away from FITs and towards competitive tendering schemes such as auctions, as a way to improve cost effectiveness and increase control over renewable capacity levels, although FITs remain in place in 87 countries.³⁷ (→ See *Policy Landscape chapter*.) The introduction of auctions has tended to favour large-scale developers and to disadvantage citizen-driven initiatives seeking to participate in ongoing decarbonisation efforts.³⁸

Both Ireland and Germany have put in place measures to encourage **community ownership** of renewable energy as a means to retain stakeholder diversity, wider public engagement and citizen support.³⁹ Similarly, governments can enable the growth of renewable energy **prosumers** through grid integration, peer-to-peer models and prosumer community groups.⁴⁰ Consumers also can be encouraged to purchase renewable energy as part of more conventional **electricity contracts**: "green power programmes" are now offered in Australia, Canada, Denmark, Finland, France, Germany, the Netherlands, Slovenia, Sweden and the United

States, among others, and "green electricity" certification schemes are offered by many companies, such as Blue Energy (Slovenia), Eesti Energi (Estonia), EKOenergy (Finland), Green-e (United States) and Nanoenergies (Czech Republic).⁴¹

By necessity, a transition towards more renewable energy means phasing out high-carbon industries that rely on fossil fuels, including coal mining and oil and gas extraction. However, this shift may impact regional economies and communities that depend heavily on such industries, resulting in opposition to initiatives and projects – such as renewable energy developments – that displace these sectors. **Ensuring a "just" energy transition** is central to the wider objectives of a sustainable economy.⁴² The EU's Green Deal, for example, includes a Just Transition Fund aimed at guaranteeing a fair allocation of impacts and equitable distribution of benefits of its climate plans; similar efforts have emerged in Spain, Ireland and among US philanthropic institutions.⁴³

In some countries, it has become common for developers to establish some form of **benefits package for local communities**, whether through a fund for local community projects, education bursaries or discounts on electricity bills. The United Kingdom's Coastal Communities Funds give a percentage of state royalties from offshore wind energy to adjacent coastal areas.⁴⁴ These "passive" forms of financial participation are becoming increasingly formalised and institutionalised.⁴⁵ For example, Scotland has a searchable register of community benefits packages associated with wind power projects, with the aim of increasing fairness and transparency, and in 2009 Denmark introduced a compulsory option-to-purchase share scheme that requires developers of wind energy projects to offer a proportion of investment in the project to the local community.⁴⁶



Awareness campaigns, supporting policies, and new forms of participation, control and ownership further **build citizen support** for renewables.

ⁱ Green consumerism refers to the willingness of consumers to purchase goods that have been produced in a manner that protects the natural environment, such as from renewable energy.

PUBLIC PARTICIPATION, CONTROL AND OWNERSHIP

The distributed nature of many new renewable energy projects has shifted the scale and geography of energy generation, creating new opportunities for more dispersed patterns of ownership and control of energy production.⁴⁷ This has given rise to the concept of **energy democracy**, which covers different aspects of renewable energy – from “good governance” and public consultation in policy making (such as Citizen Assemblies or civil society movements for decarbonisation, for example the Mauritian Power Shift Plan) to more widespread civil society ownership and control of energy infrastructure.⁴⁸

Greater democratic engagement in energy systems increases social acceptance and can lead to more equitable socio-economic outcomes.⁴⁹ The movement for energy democracy has many disparate and contested goals and instruments.⁵⁰ In developing countries, for example, narratives remain focused on issues such as energy justice or energy sovereignty.⁵¹

The opportunities for community participation in renewable energy have been expressed in many different ways. For example, efforts to ensure stakeholder engagement throughout the life cycle of a renewable energy project are considered best practice as part of environmental impact assessments (EIAs) or environmental and social impact assessments (ESIAs). Examples of **extended participation processes** include the Stakeholder Engagement Plans for the Baikonur Solar Power plant in Kazakhstan and the Sebzor Hydropower Plant Project in Tajikistan.⁵² In many jurisdictions, stakeholder engagement is mandatory: Ireland’s proposed Renewable Electricity Support Scheme includes provisions on how communities should be consulted during project development, and in Victoria, Australia proof of community engagement is required as part of the 2017 renewable energy auction scheme.⁵³

Although the private sector plays a strong role in driving renewable energy projects in many parts of the world, public bodies, particularly municipalities, have assumed more direct involvement in energy projects. In some cases, public ownership is considered an instrument for energy democratisation, because of the accountability that elected officials have towards citizens and their mandate to protect the public interest. Between 2005 and 2019, some 374 processes to re-municipalise energy generation and supply were undertaken across 19 countries.⁵⁴

Re-municipalisationⁱⁱ often is a result of grassroots activity and engagement.⁵⁵ Communities also have become more directly engaged in the ownership of energy. **Community ownership** implies a high level of control and allows local residents to maximise economic benefits. Locally owned energy co-operatives involve various technologies and have burgeoned across diverse geographies, from the El Cuá community hydropower project in Nicaragua to the Aran Islands Energy Co-operative in Ireland.⁵⁶

Some models of ownership have wider definitions of community. In Japan, more than 200 open shareholder models, which are not restricted to a specific geographic area, provide over 70 megawatts of renewable power.⁵⁷ In Costa Rica, four regional co-operatives distribute and transmit electricity to rural areas that were not being serviced by the state or private companies, covering a geographical area representing 9% of the national territory.⁵⁸



i EIAs/ESIAs are usually required under legislation before consent is granted for construction and are sometimes a condition attached to receipt of project finance from financial institutions; however, the quality of engagement and consultation varies widely in practice.

ii Re-municipalisation refers to efforts by citizens or cities to reverse the privatisation of local services such as water provision, waste collection and management services, and energy generation and distribution through local or municipally owned utility companies. See REN21’s *Renewables in Cities 2019 Global Status Report* at www.ren21.net/cities.