

A large white wind turbine stands on a grassy hillside under a blue sky with scattered white clouds. The background shows rolling hills and a distant horizon. The image is partially overlaid with green geometric shapes.

EXPLORING OPPORTUNITIES FOR RENEWABLE ENERGY CO-OWNERSHIP IN IRELAND

Report Name: Exploring opportunities for renewable energy co-ownership in Ireland.

This report has been supported with financial contribution from Sustainable Energy Authority of Ireland under the SEAI Research, Development & Demonstration Funding Programme 2023, Grant number 23/RDD/1045.

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Suggested Citation: Brennan, N. and van Rensburg, T. (2025). Exploring opportunities for renewable energy co-ownership in Ireland. Report to Sustainable Energy Authority of Ireland.

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INTRODUCTION

Renewable Energy Communities (RECs) are defined as legal entities which are owned or controlled by shareholders or members who live near the renewable energy projects, with the primary goals of delivering environmental, economic or social benefits including energy justice to its shareholders, members or the local community [1, 2] and to foster social acceptance for renewable energy [3].

RECs can make the transformation of the energy system more fair by broadening the participatory base and ensuring that the power and wealth associated with renewable energy is not

However, the challenges to the development of RECs are significant. The development of RECs can be complex and risky for communities [12]. The costs of community projects can be higher than developer led projects and they can take a longer time to develop [13]. Volunteer burnout can be detrimental to projects [14] and the lack of local knowledge can hinder project development [15, 16]. Community projects can find it difficult to raise capital for the significant upfront costs associated with development [17-19].

Due to the benefits and challenges associated with

What are the benefits of RECS?



RECs can make the transformation of the energy system more fair.



RECs can make the energy transition more sustainable.



RECs can be effective at dealing with public acceptance concerns.



RECs can build social coherence and ensure greater participation by citizens in the energy transition.



RECs can provide access to private capital resulting in local investment.

concentrated into the hands of a limited number of actors [4]. RECs can improve sustainability by coordinating production and consumption to achieve common economic, social and environmental goals [5, 6]. Projects which incorporate the perspectives of those living closest are more likely to be developed in a fairer and more equitable manner that reduces the negative externalities on local residents [7, 8]. RECs can build social cohesion through energy and sustainability education and the inclusion of vulnerable groups [8] as well as local economic development [9] and significant local financial benefits [10, 11].

What are the challenges for RECS?



RECs can be complex and risky, requiring considerable expertise and commitment before financial returns are realised.



Costs can be higher for community renewable projects.



Projects can struggle to find volunteers willing to take part.



RECs can struggle with a lack of local knowledge in particular project areas.



RECs can face difficulties in raising capital for projects.

RECS, many countries have made their development a priority by setting targets for community owned projects [20, 21] and have incentivised projects by introducing non-competitive routes [22]; reducing bureaucracy for smaller projects [23]; providing funding for planning and approval [24] and requiring the DSO to engage quickly with communities and provide free data [25].

Another method to incentivise the level of community renewables is to facilitate co-ownership with more experienced intermediaries or partners.

This report outlines international examples of collaborative and co-owned projects and provides the policy context for REC and co-owned renewable developments in Ireland. This report then outlines findings from stakeholder engagement carried out

with community groups, the Irish renewable energy industry and policymakers to identify the barriers and enablers for REC and co-owned developments in Ireland.

COLLABORATIVE OWNERSHIP PROJECTS

Collaborations between communities and other parties, including private developers, municipalities or local government and other intermediaries can avoid many of the barriers faced by communities developing RECs alone [26].

Table 1 outlines some examples of multi-stakeholder shared ownership and collaborative projects from around the world.

Table 1: Examples of collaborative projects

Country	Project Name	Type of project	Community ownership of entire project%	Details
Canada	ExPlace Wind Turbine	Wind	44.90%	This 750 kW urban wind turbine, operational since 2003, is currently co-owned by the WindShare Co-operative and Rankin Integrated Energy. It's notable for being the first community-owned wind power project in Ontario [27].
Canada	Gunns Hill Wind Farm	Wind	49%	The Oxford Community Energy Co-op (OCEC) partnered with Prowind Canada and Six Nations in a limited partnership where OCEC own 49% of the units [28].
Canada	Lotbinière Ndakina Community Wind Project	Wind	50%	Partnership between Innergex (50%), the RCM of Lotbinière (45%), the Abenaki Council of Odanak (2.5%) and the Abenaki Council of Wôlinak (2.5%) [29].
Canada	Okikendawt Hydro Project	Hydro	50%	A partnership between the Dokis First Nation and Innergex, featuring a 10 MW run-of-river hydroelectric facility in Ontario [30].
Colombia	Arhuaco Solar Project	Solar	49%	Partnership between Greenwood and the Arhuaco, indigenous community [31].
Denmark	Andel & Better Energy Partnership	Wind	50%	Joint venture developing renewable energy parks, with 50% ownership held by Danish energy cooperative Andel [32].
Denmark	Middelgrunden Offshore Wind Farm	Wind	50%	Offshore wind farm with 50% of shares held by a cooperative of local citizens [33].
Denmark	Samsø Island Renewable Energy Project	Wind, Solar, biomass	Approximately 75%	Samsø Island achieved 100% renewable energy through a combination of wind, solar, and biomass projects. About 75% of the wind turbines are owned by local residents, farmers, and cooperatives [34].
England	Derril Water Solar Park	Solar	10%-100%	Initially developed by RES, this project was sold to Ripple Energy in 2023 which offered 10% ownership to local residents via a cooperative investment model. Ripple Energy entered administration in 2025, but the project remains fully funded and on track to operate in 2025 [35].

Germany	Feldheim Energy Village	District heating	Approximately 90%	The owner of the local district heating grid is Feldheim Energie GmbH & Co. KG, a limited partnership formed by the connected households, enterprises and the municipality of Treuenbrietzen [36].
Netherlands	Windpark Fryslân	Wind	Approximately 15%	Residents from the Fryslân region were given the early opportunity to invest in the wind farm. The crowdfunding does not provide residents with direct ownership but a return on investment and 15% of the project is owned by the Province of Fryslân [37].
Netherlands	Windpark Krammer	Wind	51%	A 102 MW wind farm co-owned by two cooperatives, Zeeuwind and Deltawind, and developed in partnership with Enercon [38].
Scotland	Allt Dearg Wind Farm	Wind	8.30%	A 10MW wind farm with 12 turbines, where the Ardrishaig Community Trust holds a 1/12th stake, funded by a loan from the Allt Dearg Wind Farmers LLP [39].
Scotland	Ben Aketil Wind Farm	Wind	Approximately 4%	Local residents, through the Isle of Skye Renewables Co-operative own approximately 4% of the wind farm alongside Falck Renewables Group [40].
Scotland	Fintry Development Trust	Wind	6.6%	Fintry Development Trust owns 1/15 th of the output from the nearby Earlsburn Wind Farm [41].
Scotland	Greencraig Community Wind Turbine	Wind	20%	A new CIC was established to own and operate the community element of the project in collaboration with Locogen [42].
Scotland	Neilston Community Wind Farm	Wind	28%	A 10MW wind farm where the Neilston Trust raised £950,000 to purchase a 28% stake, supported by the Scottish Government and other organizations [43].
South Africa	Touwsrivier CPV Solar Project	Solar	5%	Community Trust owns 5% of this 44 MW CPV solar project [44].

International examples highlight the potential for community collaboration with private companies, municipalities or local government to avoid many of the difficulties faced by community projects. For example, Neilston Community Wind farm in Scotland [43] is a 10MW project involving 4 wind turbines, commissioned in 2013. The private partner, Carbon Free Developments, funded the technical, development, planning and construction of the project. The developer offered the Neilston Development Trust (NDT) the opportunity to contribute up to 49.9% of the project costs once planning consent was achieved. In order to invest, NDT obtained £950,000 in loans from various charities and investment funds to obtain an equity share of 28.3%. The project was de-risked for the community as financial commitment was not required until planning consent was obtained.

In Canada, the Oxford Energy Co-op partnered with commercial developer Prowind Canada and the Six Nations of the Grand River Development Corporation, an organisation which aims to achieve economic self-sufficiency for the Six Nations indigenous community without compromising their values. The 10 turbine development achieved commercial operation in 2016 [28] and involved strong consultation with the indigenous community who own treaty rights to the land. Prowind coordinated the project engaging with various authorities, landowners, contractors and partners. As well as the return from the 49% co-op share, the project provides student bursaries and the Gunns Hill community fund provides \$25,000 annually to fund community initiatives such as the conservation of a local pond [45].

Windpark Krammer in the Netherlands involves coordination between two large experienced

REC Characteristics



Formally constituted as a legal entity



Open to individuals, SMEs, local authorities and other eligible entities



Controlled by local members or shareholders residing or located near the project.



Primary purpose to generate environmental, economic or social benefits to its members or the local area,



Control exercised by those close to the project site.



Entitled to generate, consume, store and sell renewable energy.

cooperatives, Zeeuwind and Deltawind; which have almost 5000 members between them; and a commercial partner, Enercon. To raise financing for the project, a bond loan seeking €11,850,000 was issued with the target amount achieved in a few hours. Residents close to the offshore wind farm development were given priority with a €500 minimum investment and €250,000 maximum investment [46]. The development offers a wind fund of €0.50 per MWh, with approximately €90,000 being provided to sustainable projects in the region annually. This fund has contributed towards a number of community development projects such as the purchase of wheelchair bicycles, playground equipment, village council buildings, solar panels [47].

Derril Water Solar Park in England highlights the different ownership paths that renewable energy projects can take to achieve development. In 2021 RES, a private developer, submitted a planning application for a 42MW development, which was

approved in 2022. In 2023, they sold this development to a cooperative managed by Ripple Energy, which offer the wider public the opportunity to invest in their renewable energy projects and set aside a 10% share allocation to local residents [48]. The project also provides £1000 per MW annually for local community projects. Ripple Energy entered receivership in March 2025, however the project remains fully funded and on track to start generation in mid-2025, managed by Derril Water Solar Ltd and through an agreement with RES to manage the construction and operation of the project [35, 49].

In order to align with the definitions of outlined in Directive (EU) 2018/2001, RECs must follow certain criteria including formal legal structures, openness, local control and the provision of local economic, social or environmental benefits as its primary purpose. Some of the examples outlined in Table 1 may follow this framework, however may not have majority community control over the entire project. While RECs can include members from SMEs, large private corporates cannot be a member, so the entirety of those projects cannot be categorised as an REC. However it is the *legal entity* that is the REC not necessarily the full project. In this respect, the community has full power over the legal entity and the criteria of an REC is met. Although collaborative projects may not follow the bottom-up approach of traditional community projects [50], hybrid models with less than majority community control over the entire project can provide many or all of the benefits of RECs outlined in the previous section [51, 52]. In a study in Scotland, Hogan (2024) find that the acceptance of a community-owned project by those living nearby was determined by expected involvement in the project, for those living near a privately-owned project acceptance was determined by the perception of fair benefits but for those living near the Ben Aketil shared ownership project, acceptance was based on *both* perceived involvement and benefits [53]. Even though the local ownership share of the entire project is modest, at approximately 4% [54], those living in both the community owned and the shared ownership area had a higher level of renewable energy acceptance than the privately owned wind farm.

REScoop, the European federation of energy communities, recommends that member states develop co-ownership measures or policies separately and in addition to the support provisions for RECs; that is co-ownership should not be the only method to develop community-owned renewables, but should be encouraged alongside community-led developments. They suggest that decision makers adopt “right to buy” requirements for new commercial developments, promoting co-ownership between community and commercial developers [55]. The Scottish Government’s recent Onshore Wind Policy Statement encourages the renewables energy industry to “consider, explore and offer shared ownership opportunities as standard on all new renewable energy projects, including repowering and extensions to existing

projects” [56]. The Community and Renewable Energy Scheme (CARES) in Scotland provides funding, contractors and financial and legal expertise in shared ownership for communities interested in engaging with developers [57]. The Welsh government have also issued guidance on shared ownership and outlined their expectation that all new energy projects should have an element of local ownership [58]. The Canadian government have initiated programs to support indigenous co-ownership of renewable energy projects via loan guarantees to facilitate investment [59, 60].

In Ireland, the development of co-owned projects and REC projects in general have been limited. The next section outlines key policy issues.

POLICY CONTEXT IN IRELAND

To date, the development of RECs in Ireland has been limited, however there are over 900 Sustainable Energy Communities (SECs) registered with the Sustainable Energy Authority of Ireland (SEAI) [61], many of whom indicate an interest in the generation of renewable energy [62]. To support the generation of community renewables, the SEAI operates the Community Enabling Framework, which provides guidance, trusted advisors and financial support via grants for development costs [63].

The Irish government outlined a goal of supporting at least 500MW of local community-based renewable energy projects in their 2023 Climate Action Plan [64]. This target has not been referenced in subsequent Climate Action Plans [65, 66], but has been highlighted in the recent launch of the Small Scale Renewable Energy Support Scheme (SRESS) [67].

The Renewable Energy Support Scheme (RESS) in Ireland has experienced some changes in recent years in regards to community supports. RESS 1, launched in 2020, had two elements of community participation. One established the Community Benefit Fund (CBF) which required all projects to

contribute €2/MWh to a fund for local communities. The second related to a separate preference category for “community-led” projects, which must at all times be at least 51% owned by an REC (either via direct ownership of the assets or shares in the generator) and that at least 51% of all profits, dividends and surpluses arising from the project be returned to the REC. This means that entire shared ownership developments could enter via the community preference category, the first category that received offers in the auction, provided it was majority owned by the community REC [68]. A further element of community investment was initially proposed for inclusion in RESS 1, the Renewable Energy Participation Scheme (REPS) which would allow citizens to invest in a renewable energy project, with returns arising from project revenues. This was not included due to perceived risks to investors and the potential complex administrative burden for developers which may have resulted in inflated bid prices [69].

In RESS 2, launched in 2022, there was a significant policy change in relation to community developments. The CBF requirements remained unchanged but the preference category for community-led projects required that these

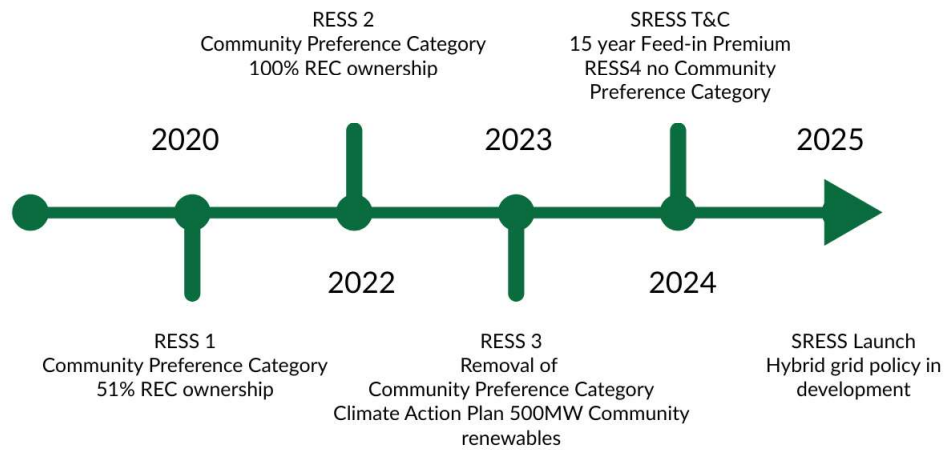
projects be 100% owned by an REC at all times [70]. This change was made to ensure that communities retain all of the benefits associated with generating their own electricity [71], however this hindered the possibility of the entirety of a co-owned project entering the community preference category.

A further amendment was made to RESS 3, which launched in 2023. Here, the CBF was the only community aspect included, and the community preference category was removed [72]. The support for communities was to transition to the Small Scale Generation Scheme (SSGS) which was due to align more closely to the capacity of the community energy sector and support the delivery of the 500MW community target outlined in the 2023 Climate Action Plan. The SSGS was due to be launched in 2023 [73].

RESS 4, launched in 2024, again only included the CBF as the community aspect. The SSGS became the Small-Scale Renewable Energy Support Scheme (SRESS), and the terms and conditions for the

community element of the scheme were launched in late 2024. Support for community projects is provided via a Feed-in Premium tariff without an auction for 15 years. SRESS also requires the inclusion of a CBF. Projects entering SRESS must at all times be 100% owned by an REC [22]. The scheme opened for applications from January 2025.

Despite the limitations outlined, co-owned projects could still technically enter SRESS provided the REC element of the project is its own legal entity, and is 100% community owned, either via legal and beneficial ownership of the generating asset or shares in the generator. However, further limitations to this type of development arise with hybrid grid policy in Ireland. Currently, Multiple Legal Entities (MLEs) are prohibited from connecting to one grid connection point, however hybrid grid connection policy to potentially address this issue is currently under development [74], which could help to support co-owned and collaborative projects.



STAKEHOLDER ENGAGEMENT STUDY STRUCTURE

Seven focus groups were held online between November 2024 and February 2025, with details on these group types outlined in Table 2.

Two groups were held with participants actively engaged in or interested in developing community renewables in Ireland. A database of community

contacts was drafted based on the Sustainable Energy Communities Network Map, developed by the Sustainable Energy Authority of Ireland [62]. This map was filtered to those interested in renewable energy and/or community energy generation. The community focus group was held online in November 2024, and following this a

second online group was held in January 2025 with 7 of the same attendees attending plus 2 new community representatives.

To gather broader perspectives on how community energy is developed internationally, three focus groups were held with representatives engaged in community renewables outside of Ireland. A list of participants were drafted from international databases for community energy [75-79]. In total, 117 organisations from 15 countries were contacted and a final number of 16 participants took part in 3 groups held in November 2024.

An industry-specific focus group was held in January 2025 to gather the perspectives of those working in the renewable energy sector in Ireland. An invitation to take part was circulated by the Irish Wind Energy Research Network (IWERN) to their database in December 2024, and a list of 41 industry members who took part in previous workshops held by the research team were contacted. 10 industry members took part in the focus group.

The final focus group was held in February 2025 and consisted of participants involved in renewable

energy policymaking activities in Ireland. A list of contacts was drafted based on responses to the invitation from IWERN and engagement in key community energy activities for government departments, government agencies and national and local government. 40 key participants were contacted with an invitation to take part, with a final number of 8 participants.

The first Irish focus group discussion investigated motivations for communities to engage in renewables, the risks and barriers and the role of communities in decision-making. The second Irish community group as well as the industry and policymaker groups assessed advantages and disadvantages of co-development, barriers to co-development/ co-ownership and the potential contribution that co-ownership could make to energy targets. The international groups discussed similar topics such as opportunities and barriers but also assessed the role of intermediaries and financial and regulatory issues in their respective countries.

The following section outlines the key findings by theme.

Table 2: Focus group participants

Group type	No of participants	Description
1st Irish Community Group	14	Participants engaged in or seeking to develop community renewables in Ireland. Discussion on barriers to community renewables in Ireland.
2nd Irish Community Group	9	Participants engaged in or seeking to develop community renewables in Ireland. 7 participants from the previous community group plus 2 new attendees. Discussion on co-ownership.
1st International Group	4	Participants with experience in community renewable development from Canada (Cooperative); Portugal (Umbrella group for cooperatives); Scotland (Trust) and England (Community Benefit Society).
2nd International Group	5	Participants with experience in community renewable development from Scotland (Community Benefit Society; Cooperative); Belgium (Association representing local authorities seeking to develop renewables); Italy (Cooperative) and Sweden (resident from collaborative development site).
3rd International Group	7	Participants with experience in community renewable development from France (Cooperative); England (2 Community Benefit Societies); Canada (2 cooperatives); Wales (Community Interest Company) and Spain (Umbrella group for cooperatives).
Irish Renewable Industry Group	10	Companies based in Ireland engaged in the renewable energy industry including: renewable energy developers (4); representative body for wind farm developers (1); wind turbine manufacturer (1); company engaged in management, logistics and shipping for wind energy projects (1); planning and technical services for renewable energy projects (2); network for training and education in offshore wind energy (1).

Irish Policymaker Group	8	Stakeholders from government departments (4) and a government body (2); participants with experience in politics (1) and a charity which provides a forum for local government to engage on environmental issues (1).
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STAKEHOLDER STUDY FINDINGS

Energy as local empowerment infrastructure.

Empowering local communities via locally owned energy to provide a source of economic revenue and further community development are the primary motivating factors to engage in REC development for the focus group participants.

“...income is a very big motivator as a benefit for communities and based on my own experience...it's not that they think they're going to suddenly become a shareholder in a community wind farm or community solar farm and retire, but that it is something they own and any money accruing from it is something coming back directly into the community.
1st Irish community group”

In the international groups, locally owned community renewables was viewed by several as a way of residents “getting a piece of the action” and a method of providing a greater local return on investment than traditional bank.

Participants value the ability to use this revenue stream to improve their local community through investments in job creation, community development, further green infrastructure, rural transport, school projects and parks.

“These projects, whichever model you go you look at, have the have the potential to provide a revenue stream for all kinds of community development projects, for the creation of jobs and so on.
1st Irish community group”

The benefits of “learning by doing” to local communities was referenced frequently, with participants citing the positive impacts of learning about complex systems such as the energy market, upskilling in solar installation and maintenance, increasing community energy acceptance, and empowering traditionally marginalised members such as women to engage in renewable development.

Other less cited local empowerment factors highlighted by participants were addressing energy poverty and distributing electricity locally.

Renewables for collective ethical action.

Aside from the direct local benefits of community renewables, participants also identified key broader social benefits which may have positive ethical impacts. These included the ability to gain energy independence, particularly from private energy developers which may not be transparent in the processes or costs, and are assumed to export benefits away from communities.

“I understand that they have this feeling of being invaded somehow...and they want to decide where to install...all the electricity that is produced there is transported somewhere else and so they only have the impacts of the process and not the benefits.
2nd International group”

Other motivations identified include the potential to increase wider acceptance of renewables and the contribution that community renewables can make to address climate change. Participants indicated that investing in renewables is a positive moral and political action to protect future generations and a

method of addressing immediate issues arising from climate change.

“ first is that we want to tackle climate change. I think there's a lot of interest now and the last speaker ...epitomises all of the problems we face if we don't tackle it...more and more storms...rain and flooding and so on....individual households are feeling huge problems because they can't get insurance on their homes, they can't sometimes live in their homes any longer, and these become human problems.

3rd International group ”

Facilitating conditions for grassroots energy development.

Community participants in both the Irish and international groups highlighted the positive role that supportive policy can have on nurturing community renewable development. Participants outlined the impact of policies exempting cooperatives from certain financial regulations and national plans for energy production as well as financial support from key policy agencies such as local councils, local administrative agencies and national funding agencies.

“ The Council were so supportive that our Chief Executive was thinking about other ways that they could potentially leverage funds for ourselves, and that didn't seem to be the issue anymore, which was actually one of the more difficult ones you would imagine. Like, how do you get more money to make this economically viable? He was really supportive and he had ideas in terms of funds that Council themselves have access to.

1st Irish Community group ”

Participants also indicated the role of high local knowledge and strong local community “champions” in motivating renewable projects, including those with connections to local funding agencies and community groups such as the Gaelic

Athletics Association (GAA), and the trust that is fostered via these local agents.

Institutional misalignment and policy inertia.

Participants indicated many institutional and policy barriers including the perception that the state does not support community renewables. This lack of support in Ireland is detailed through the Irish community participants discussion on the absence of local smart grids, the lack of detail on support schemes such as the Small Scale Renewable Energy Support Scheme (SRESS), unwillingness for policymakers to change legislation to support community renewables, blockades created by agencies preventing access to enabling grants, the lack of advocacy for RECs from government agencies and the removal of targets for community renewables.

“ It's interesting to know by the way that in the latest Climate Action Plan, the albeit very wishy washy ambition to have 500MW of community owned power has been removed.... if you're familiar with how the Climate Action Plan is structured, real actions have an action number, an owner and a time frame. That never had, and now it's gone. So that suggests that whatever feeble commitment there was to community owned generation is now gone.

2nd Irish Community group ”

An Irish industry participant suggested that the lack of successful RECs in Ireland has been due to unsupportive policies in market pricing, grid and planning.

The lack of state support was identified as an issue amongst international participants also, with participants highlighting the removal of feed-in-tariffs, the lack of support for community renewables vs other priorities, under-resourced and unsupportive local councils, the inability of regional government to make decisions, inflexible government departments, unstable regulatory frameworks, the absence of policies on energy sharing and fluctuating government priorities on climate change.

“ We do have conservative government right now, which has great advantages, but it has the one disadvantage in that they do not believe in climate change. They give some lip service to it in some areas and some concessions, but...there is no real drive or move towards...renewable energy and that makes it very difficult for us. As long as renewable energy, as long as the climate is a political issue and a partisan issue. It's difficult.

3rd International group ”

The long-term nature of community renewable projects was also highlighted as a significant barrier, with Irish and international participants indicating the difficulty in raising interest in projects which cost millions and may not be profitable in under 10 years. These timelines are exacerbated due in part to external factors such as planning, grid access, regulatory issues and lack of support from external institutions. The long timelines place additional stresses on community groups in particular, due to their voluntary nature.

“ There needs to be a job created in the communities to ...do this full time, to have a chance to do the research because as I said, as volunteers, it's immensely difficult.... we're going to be fined for not reaching our targets by 2030 and they can't do something about it by giving communities that support and giving communities the tools by employing a person or whatever to actually do the work and get it done.

1st Irish Community group ”

Connection policies were referenced in particular as key policy misalignments. Internationally, participants noted the difficulties in selling energy to individual houses and obstacles caused by a lack of competition in grid operators. The absence of private wires legislation and hybrid connection policies as well as excessively high grid connection costs in comparison to Europe and upfront payment of grid connection costs were indicated as specific barriers to development in Ireland.

“ I believe the Dutch model for a project roughly around 5MW connecting to the grid, €2000 a month once they're actually up and running.... So you compare that to €900,000 or more up front here for a project, it just makes no logical sense whatsoever. On the one side, there seems to be, “Oh yes, we're encouraging communities get involved”, but on the other side, there are enough barriers being put up to make it next to impossible.

2nd Irish Community group ”

Other key misalignments noted by participants include difficulties in establishing the legal structure for community renewables or cooperatives in Ireland and barriers in becoming prosumers and building national scale-cooperative movements for international participants. Specific issues were also raised on planning, including the potential for objectors from outside the area, uncooperative planning agencies and planning restrictions on available areas to develop renewables. Some participants also noted that the commercial sector may have an advantage by signing up landowners early, providing a lower cost for project development than the community can provide, and availing of opportunities that are unavailable to community groups due to prohibitive cost. An Irish participant suggested that the timing of government policy on SRESS details is indicative of their negative attitude towards community renewables and preference for commercial-led development.

“ The SRESS terms and conditions appeared on Christmas Eve...we're waiting for those how many months and they appear Christmas Eve...just in case anyone might actually notice they were out... is that indicative of the actual attitude? Oh, yes, we'll sing the song and we'll promote it...but we'll make sure there are enough barriers there that it fails and therefore well, we have tried, we did our best, but look, the communities weren't up to the mark... We can we can go back to the private developers.

2nd Irish Community group ”

Structural constraints to community energy participation.

The high upfront cost related to community development was indicated as a significant structural constraint for both Irish and international participants. Raising finance for permissions, feasibility studies, environmental studies, consultancy fees and grid access prior to construction costs posed a significant risk.

“ Both of those projects are effectively shovel ready, but we're being delayed by ESB networks trying to get a grid connection... those projects we put in a grid application in 2016 for those two solar farms, it's now 2024 and they're still not operational.

1st Irish Community group

”

As indicated previously, grid access is a significant issue for many participants. Issues include late notification that local grid access is inaccessible, grid operator monopolies, prioritisation of grid access to large energy generators, public objection to new grid development, and limited grid capacity and expansion.

Irish community participants noted frustrations with the lack of detail around financial support schemes such as SRESS, as well as the inability to access enabling grants due to unreasonable feasibility study requirements. International participants highlighted barriers created by the withdrawal of the feed-in-tariff and industry members highlighted the risks created by uncertainty around the support mechanism.

Further exacerbating financial issues for communities, is the hesitant nature of banks to provide finance for community projects. Irish and community participants indicated that often traditional banks are inexperienced in community projects, deeming them too risky.

“ You go back to the issue around financing. This is really a new sector here in Ireland, so your pillar banks haven't the first clue what you're talking about... the minute they hear it's a community run project, they're also getting a panic attack because... where is the expertise in this and how is it possible and all the rest of it.

2nd Irish Community group

”

Other less referenced structural constraints include the significant bureaucracy in application processes, legislation, regulations, insurance, tenders and general administration as well as the limited and non-transparent distribution of the Community Benefit Fund.

Sociocultural roadblocks to collective energy action.

As well as policy and structural constraints, many participants noted social barriers to community development. These included the need for strong community participants, the lack of information available to communities and limited access to investment in community renewables for residents. Participants noted the lack of motivated community members willing to start and lead these long-term projects.

Participants also highlighted the difficulties in communicating the merits of community energy as well as the lack of information for residents on what kind of investment is required, what connection agreements are needed, what legal structures should be used, how to raise funds, where transformers are, what grid constraints may exist locally and other useful guidance.

“ I suppose in in summary, the sort of expertise that's being shared in this forum is not out there, there's no easy to read tool-kit for anybody to read about these sorts of issues that that we are talking about here.

1st Irish Community group

”

International participants in particular were concerned about the unequal ability for residents to invest in renewables due to the limited number of residents in a community and the financial inaccessibility for those most in need.

“ I've joined a couple of community share offer benefit companies and they are great for the people. I've got some cash that can...earn 4% or whatever back on the cash, but the people that really need to benefit...don't have that cash to invest.

1st International group

”

Other social limitations cited by industry and the international groups in particular include the lack of community technical experience in developing renewables and opposition to renewable energy developments.

Legitimacy and power in community-private energy relationships.

A significant portion of the group deliberations on co-ownership or co-development discussed the difficult dynamic between communities and private industry. This includes perceptions that co-ownership was a form of “wolf in sheep’s clothing” as the development would still be in private hands with a tokenistic element of community involvement. Those with experience in community development in Ireland indicated that policy had been changed to block co-development due to concerns about developer motives.

“ We call them the 49ers, basically in the RESS auction... it was 49% ownership possibility for a developer and 51% for community. We lobbied against that primarily just because, you know it's an ownership thing...developers...were using, well, our perception was within RESS 1 they were using that vehicle to get a higher tariff rate.

1st Irish Community group

”

Irish community participants indicated concerns that developers may encourage community members to sell at a later date placing the entire project into private hands or that the profit-driven nature of the private sector would be detrimental to community priorities. Community participants indicated the strong need to protect the community share and benefits to prevent any negative outcomes.

Irish community participants discussed the need for accountability and strong governance structures to protect the community share as well as the ability for the community to buy out the project and a minimum retention of the project by the developer of 10 years. In order to ensure that communities had equal power in negotiations, it was suggested that additional support or mentorship could be required from Local Enterprise Offices, not-for-profit organisations or the SEAI.

Irish industry partners also recognised the need for a trustworthy industry partner to ensure balanced partnership, however one industry member which had explored the possibility of co-ownership highlighted restrictions on developer sale as a possible risk.

“ If the developer itself wants to sell their portion... how does that work? So that that was just... risk exposure there, that just came up time and time again

Irish Industry group

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Several industry participants indicated their interest in working with community partners as long as the decision-making dynamics were suitable. While taking into account community perspectives, this included the industry partner having the final say on all of the technical and funding aspects, such as wind turbine location and securing capital outlay. Some industry participants debated why communities would be motivated to

engage in co-ownership, with others pointing out the appetite for engagement.

“ Most of them, probably won't want to be involved in the technical aspects, not even maybe the financial aspects but, they just maybe want to be not left behind in the conversation.
Irish Industry group ”

Industry members highlighted possible co-ownership structures including the allocation of wind turbines to communities from larger developments, but also flagged difficulties in achieving community consensus and the potential for dividing communities as potential risks.

Irish policymakers also noted that the current Irish policy of 100% community ownership was put in place due to fears of developers “hijacking” the community label and the definition of community ownership was noted as a particular sticking point.

“ The distinction between...citizen ownership schemes versus community ownership schemes... I find it very hard to wrap my head around a kind of a functional definition of community...We've seen this in various consultations and so on to try and define what community means in a policy framework. Everyone that I've seen trying to do it seems to fail at it, and so I'd really like to get a kind of a robust definition of community if we're going to keep using that.
Irish Policymaker group ”

It was also indicated in the policymaker group that private industry participants would likely not be willing to engage in co-development which required community input into each aspect of the decision making process. Policymakers also noted the lack of an incentive for private industry to engage in co-ownership besides the potential for positive social perception and the difficulties that smaller developers in particular may have in forming co-ownership projects.

International participants with experience of co-development shared some negative experiences, including the developer renegeing on a deal and shrinking the community share highlighting the imbalance of power between the community and developer.

“ The concern had bigger, better lawyers than we did, understood the financial markets better than we did, and we, being a little community, lost out...My experience of inviting large commercial entities into community projects is you get walked over.
1st International group ”

International participants highlighted the need for community members to understand the terms of the partnership and ensure that community participants have similar legal support to the industry partner. Developer expectations of a sufficient return on investment was also highlighted as a barrier to cooperation.

Difficulties in achieving community consensus were also noted, with participants agreeing that consulting the local community on every project decision was not a viable or optimal route for development.

International participants with positive co-development experience indicated that working with an approachable partner is key.

“ It's a good arrangement and because it's actually a small company you can work really well with them... we're bigger than they are ... So unlike working with the big multinationals where...even finding the right person to speak to is hard going.
2nd International group ”

International participants also highlighted the need for equal rights between the community and developer including the ability to buy out the developer. Other potential partnership arrangements indicated by international participants include collaborations between established community projects and cooperatives and newer community developments. It was also noted that government agencies could incentivise co-developments by stipulating that any state PPA arrangement require an element of community ownership.

Strategic pragmatism in co-ownership.

Despite the potential differences in motives between communities and developers, many participants noted the strategic benefits to be derived from collaborative projects. These included avoiding the difficulties in development highlighted previously while still retaining a share of the proceeds. The developer could provide greater capacity than possible via typical community projects as well as their knowledge and financing, and communities can avoid the complexity of development.

“ It's something I think for all of us to think about is... do we really need to own all the assets and run them, which is a highly technical thing or do we want to get the benefits flowing to communities?
2nd Irish Community group ”

Other benefits highlighted included skills and capacity building in communities, less opposition to development and cost reductions.

Industry participants noted a number of benefits to collaborative projects including avoiding the costs and risks of small development and banks which are unwilling to lend to inexperienced communities. Community partners also experience the complexity of project development which could lead to more appreciation for renewable energy. By engaging early with community members, opposition to development could be avoided and the energy transition could be expedited.

“ I think if communities like that got involved from the beginning we could get around this community opposition...Obviously then...wind energy wouldn't get the bad press that it gets in the media at times, and maybe...the energy transition, we will be able to get there quicker with less conflict.
Irish Industry group ”

Irish policymakers also noted a host of potential benefits to co-ownership including reduced financial risk, developer expertise, site identification, reduced bureaucracy, minimised objections to development, corporate social responsibility, democratisation of energy, local financial benefits, reduced energy costs, lack of volunteer burnout, and community owned energy target achievement.

“ Our target is 500MW of community owned energy for 2030...I think co-developments help significantly towards that I think. From...an ideological point of view, I think that community ownership is really important. You know, be it 100% community owned or a co-development model. I think it helps in goodwill as people are mentioning towards the energy transition, that kind of democratises the grid in general and it's important for people's appetites towards the energy transition.
Irish Policymaker group ”

International partners with positive experiences indicated the importance of co-development for project success.

“ We could not do what we have done without cooperation with a developer. We do not have the internal expertise to build a complicated wind farm or solar farm. So in all of our projects we try to keep greater than 50% of our ownership but we are seeking to partner with developers that have the experience and the expertise and also often the financial backing...we have been able to provide good returns for the investors in the co-op, but the partnership is absolutely critical from an experience and expertise experience.
3rd International group ”

Other successful types of co-development were noted including excess renewable energy from local

factories and businesses being shared with communities and support from larger cooperatives.

Systemic gatekeeping of energy transitions.

Despite the acknowledged benefits of collaboration between communities and developers, participants noted the existence of significant barriers that hamper such projects. Many of these are the same issues faced by typical community projects: grid connection issues, a lack of political will, RESS restrictions and hybrid connection issues.

“Specifically, if we were looking at the idea of having the example that that ID.3. gave of a wind farm, say 15 turbines owned by company A and one turbine owned by the community. At the moment that isn't allowable under Irish law because of the lack of hybrid connection policy.

2nd Irish Community group

”

Industry participants highlighted that banks were still likely to be concerned about collaborative projects, despite the inclusion of an experienced partner.

“If you told a bank you were in co-development with the community, that was just a no no for banks. They just were not willing to part-finance... they had an unknown entity that maybe weren't experienced.

Irish Industry group

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Policy-makers highlighted legal considerations including limitations on the maximum number of shareholders and the restriction created by the 100% community ownership rule in the RESS. Policy-makers also indicated the expectation from developers that public bodies would take the lead in shaping how community engagement works in Ireland.

“the case of Denmark, where they try to engage communities...the initial push...is coming from the local authorities or it's something mandated. So when you talk to some developers especially developers from abroad you can see a lack of... awareness or knowledge or experience in how community engagement works in Ireland. Sometimes they might be open to these ideas, but they would expect public bodies to take the lead, to set the rules, to set how it's going to work.

Irish Policymaker group

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CONCLUSION AND POLICY RECOMMENDATIONS

This study highlights the significant opportunities for REC and co-ownership of renewables in Ireland. The international case studies indicate the various forms that co-ownership can take, including community, citizen and cooperative investment; joint ventures with private industry; partnerships between industry and indigenous communities; limited partnerships between local businesses, residents and municipalities; crowdfunded investment and investment facilitated through Trusts and Community Interest Companies. The community share of the entire project can vary significantly, with communities or citizens owning minority shares in the whole development or

retaining majority ownership. Even holding minority share of the entire project can result in significant benefits to local communities, with strong legal structures required to protect the community portion.

In the stakeholder study, we identify that many of our industry participants are keen and interested in co-ownership with communities, however several restrictions prevent such projects from taking place. While engagement with community participants indicate that trust-building and protection for community participants are required, the potential broader benefits of co-

owned projects, including increased capacity and the provision of knowledge and financing were acknowledged by many.

REScoop recommends that member states develop co-ownership measures or policies in addition to the support that is already provided for RECs and the Scottish Government's recent Onshore Wind Policy Statement encourages the renewable energy industry to "consider, explore and offer shared ownership opportunities as standard on all new renewable energy projects, including repowering and extensions to existing projects" [56]. Following this model, it is recommended that the Irish Government include as a stipulation in upcoming RESS Terms and Conditions that offering shared ownership opportunities for local residents be standard for new renewable energy projects and that new onshore wind policy outlines this as a requirement for all new projects and repowering and extensions to existing projects.

While also ring-fencing a portion of ownership for local communities, offshore wind projects may offer an opportunity to broaden citizen investment outside of local communities as the negative impacts are typically perceived as less severe than onshore development [80, 81]. It is recommended that the Irish government re-explore opportunities for citizen investment, particularly in offshore wind energy.

The Community and Renewable Energy Scheme (CARES) in Scotland provides funding, contractors and financial and legal expertise in shared ownership for communities interested in engaging with developers [57]. It is recommended that the Sustainable Energy Authority of Ireland explore methods to provide similar support for communities in Ireland.

The SRESS requirement of 100% community ownership restricts the entirety of shared ownership projects from entering, although the community portion *may* be permissible provided it is a separate legal entity. To encourage more flexibility and to prevent shared ownership projects from competing with 100% community-led and owned projects in SRESS, an additional category

should be considered in the RESS auction for shared ownership projects.

Many of Ireland's wind farms are developed by state and semi-state companies such as Bord na Móna, Bord Gáis Energy, Coillte and the ESB. The general public in Ireland regard most of these bodies to have a strong reputation [82]. Due to the level of governance oversight that the Department of the Environment, Climate and Communications has over such companies, and the trust that the public has in many of these bodies, these developers could act as key demonstrators for co-ownership in Ireland. It is recommended that state and semi-state bodies developing renewable energy projects provide opportunities for co-ownership to act as demonstration projects in Ireland.

The stakeholder study outlines clear scepticism of the governments support for community and co-owned developments. While the 2023 Climate Action Plan included a general goal of 500MW of community-owned energy, this did not have an Action Number associated and this has been removed from subsequent plans. It is recommended that a target is set for community owned projects with an identified Action Number and task owner and that this be incorporated back into new Climate Action Plans and progress tracked.

Grid policy is a key barrier to REC development in Ireland and a lack of a hybrid grid policy restricts collaborative projects. It is recommended that hybrid grid connection policies including the permitting of multiple legal entities to share connection points be finalised as a priority. Policy-makers highlighted potential gaps in terms of the definition of "community" and barriers which restrict the expansion of cooperative projects in Ireland. It is recommended that a study be conducted which assesses the limiting factors to cooperative development in Ireland, and identifies legal and policy changes required to facilitate their development.

Community participants highlighted hesitancy from financial agencies to lend to community groups and industry stakeholders keen to explore opportunities for co-ownership have also identified issues with the finance sector in Ireland. It is

recommended that stakeholder engagement is conducted with the finance sector to identify what additional security is required when collaborating with communities.

Community groups indicate a local level skills and knowledge gap which can hinder development and on the contrary, the successes which have emerged from having strong, skilled local members participate in community projects. It is recommended that local level skills and training courses be provided for community groups keen to engage in renewables.

Finally, community participants noted that the discussions in this stakeholder engagement study were helpful to them, and identified the need for some sort of forum to share experiences. It is recommended that a national forum be created for RECs, SECs, cooperatives, co-owners etc. to share their experiences and provide learnings from successful projects nationally and internationally. This forum could also provide a potential funding base for members to invest or finance future community projects.

- CO-OWNERSHIP POLICY**

Offer shared ownership as standard for all new wind farm developments and repowering and extensions.


- CITIZEN INVESTMENT**

Explore opportunities to develop citizen investment schemes for offshore wind energy in particular.


- SHARED OWNERSHIP EXPERT SUPPORT**

The SEAI should explore methods to provide funding, contractors and legal expertise in shared ownership for interested communities.


- RESS FLEXIBILITY**

Creation of funding category in RESS to permit co-ownership while maintaining existing supports provided by SRESS.


- CO-OWNERSHIP PILOTS**

Utilise state and semi-state developers to conduct co-ownership pilots to act as demonstration projects.


- TARGETS**

Set concrete national targets for community projects with actions and task owners.


- CONNECTION POLICIES**

Finalise hybrid connection policies including the permitting of multiple legal entities to share connection points.


- COOPERATIVE STUDY**

Conduct study to assess the legal and policy changes required to facilitate cooperatives.


- CAPITAL FUNDING**

Conduct stakeholder engagement with the finance sector to establish what additional security is required.


- SKILLS AND TRAINING**

Provide local level skills and training courses for community groups keen to develop renewables.


- COMMUNITY ENERGY FORUM**

Create a national forum for RECs, SECs and co-owners to share experiences and support future projects.



ACKNOWLEDGEMENTS

The authors would like to thank those who took part in our workshops and provided valuable insights from the community, industry and policy perspective. The Recode project is led by the University of Galway in partnership with Sharedturbine.



This report has been supported with financial contribution from Sustainable Energy Authority of Ireland under the SEAI Research, Development & Demonstration Funding Programme 2023, Grant number 23/RDD/1045.

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