CITIZEN-LED RENOVATION

Energy Communities Tipperary Cooperative

Business model overview

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Accompanying document: "Country study: analysis of context for citizen-led renovation in Ireland"

ECTC ENERGY COMMUNITIES TIPPERARY COOPERATIVE

Some of the communities involved (left to right): Cappamore, Drumbane/Upperchurch, Terryglas (©ECTC)

Overview of Energy Communities Tipperary Cooperative busines model

Category	Description
Name	Energy Communities Tipperary Cooperative (ECTC) CLG; https://energycommunitiestipp.ie/
Location	Tipperary region, Ireland
Active since (year)	2012
Why was it started, and how did it develop?	Started as a pilot scheme in the Drombane/Upperchurch community (1000 inhabitants) in rural Tipperary as a way to halt economic and social decline. The Drombane/Upperchurch project began in 2011 when a local group (Drombane Village Group) as part of a community initiative was looking to stimulate the local economy through developing jobs and 'keeping money in the area'. Together with a rural development program run by a local development company, the local energy agency, and a technical university energy efficiency was selected as a topic to look at first. The strong reliance on imported fossil fuels for heating, and relatively energy inefficient homes (see country study for Ireland) made this a priority topic. The aim was to help householders save money and stimulate local economic activity. A community 'Energy Team' was set up with as first task to, together with university students, develop a community

	survey looking at energy use in the area. At the same time the survey was a means to engage with the community and create awareness on the benefits of energy efficiency in homes and availability of government grants[1]. One of the survey findings was that 1 million euro was spent on imported fuel every year in the community. The second activity was to look for a group of householders interested in sustainably renovating their homes as to improve its energy efficiency using grants from the national government. This resulted in the first renovation projects started in four communities 2014 – involving four voluntary community development groups, a community development professional, and a contracted project manager – and, after successful delivery of these projects, the founding of Energy Communities Tipperary Cooperative in 2015[2]. Since then they have had many successful renovation projects across the different communities (see
Main objective	Using energy efficiency and generation of renewable energy as a tool for local development. Their key driver is "Making the Energy Transition work for local communities". In practice this means leveraging government grants to deliver home retrofits. From 2021 onwards they will do this as a 'one-stop-shop' covering the whole renovation process.
Organizational form and governance	ECTC represents 8 Community Energy Teams (coming from 8 communities) consisting of volunteers living in the area with an interest in working for local benefit. Representing between 1000 and 1600 residents, or 300-500 households, per community. It is governed by a board of directors made up of volunteers coming from the participating communities (two per community) plus one director coming from both the Tipperary Energy Agency and the North Tipperary Development Company[3]. The board forms sub-committees to deal with specific tasks, which then report back to the board. The individual directors of the board report back to the community energy teams they come from,

[1] Curtin, "Drombane/Upperchurch Energy Project: Community Energy Survey Report."
[2] ECTC, "Energy Communities Tipperary Cooperative - What We Do."
[3] ECTC, "About Us."

	who in their turn provide input coming from the community to the board. Members from the energy teams are encouraged to attend board meetings. Board meetings take place 8-10 times per year.
Key partners	In order of importance: 1. Sustainable Energy Authority Ireland (SEAI): the main source of grant funding for sustainable renovation. Funded by the national government. 2. Directors coming from local community groups/energy teams: promoting ECTC activities to local residents and enrolling interested householders, Identifying local contractors who may be interested in tendering for the scheme, Identifying local energy generation possibilities in the locality. 3. Tipperary Energy Agency: there is a very strong connection with the energy agency. They gave critical guidance at the beginning of the Energy Communities Tipperary Cooperative initiative in Drombane. Currently they have one seat on the ECTC board and are involved in the design of the projects. They carry out the Energy Audit on the building, outlining the energy savings and the measures and specification of the measures required. Design includes lighting layout, heating upgrade, and ventilation systems. 4. North Tipperary Development Company: community development organization using national government funds to support local activities. They deliver activities and services that in other countries might be delivered by local authorities. A broad range of activities can apply for funding. The development company provided social enterprise development support at the beginning of the initiative and also have a seat on the Energy Communities Tipperary Cooperative board. And, for example, some of the people working for the development company co-founded ECTC. 5. Clann Credo (Social Investment Fund): social finance organization. Providing bridging finance (unsecured bridging loans) to span the period between paying the contractor and receiving the grant funding from the energy authority. They have been critical to the success of the organization from the start since no money was available from commercial banks. 6. Utilities: SSE Aitricity / Electric Ireland (partners for the Carbon Credit System) 7. Local contractors: perform the renovation activities. 8. Local credit unions: bridging finance for people renovating their home. 9. Community Power: ECTC is a founder member of Community Power. ECTC employed a Development Coordinator, 60% funded under an INTERREG project with the other founders, to help develop and promote Community Power. ECTC is also partner with Community Power on a Community Solar Project which aims to secure funding under the community strand of the Irish renewable energy auction scheme – Renewable Electricity Support Scheme (RESS). Moreover ECTC supports Community Power by referring potential

	customers to them. There is thus no direct involvement of the municipality, but they are indirectly involved through their membership in Tipperary Energy Agency.
Key activities	The philosophy was to make the initiative as 'light' as possible. Putting projects together according to available funding and hire the necessary expertise through contractors. To deliver value proposition the following activities are undertaken: ▪ Project management and coordination services ▪ Perform technical surveys – this is done by an external technical assessor ▪ Secure grant aid ▪ Source contractors to: - Perform upgrades to buildings: insulation (external and internal), ventilation and heat recovery systems, replacement of all single glazed windows, replacement of external doors - Install renewable energy systems: solar PV and solar thermal , wind, heat pumps - Perform upgrades to heating systems: standalone solid fuel stoves, control upgrades (e.g. zoned heating/room thermostats), chimney draught excluders, in the past boiler upgrades where done. - LED lighting. ▪ Provide quality assurance ECTC Tenders out the work of the Technical assessors, the contractors and the project & financial management – so all of these are contracted positions. In 2020 ECTC was able to hire an inhouse development coordinator funded through INTERREG.
Key resources	1. Volunteers from the communities who provide their time for free to help deliver the renovation projects. On average 4-10 volunteers are involved per local group 2. Paid project manager/development coordinator that coordinates the work, does administration, and liaises with all partners to ensure schedules and necessary standards for the government (SEAI) grants are met.

	3. Grants from the national government delivered through the SEAI 4. Contractors (also put under partners) to perform upgrades to home and heating system and install renewable energy systems. A tendering process for new contractors is done every two years by the ECTC project manager 5. Strategic support from the regional energy agency (also have a representative in the board of directors).
Value proposition	Main value proposition from ECTC to households/beneficiaries: the coordination of all aspects of a sustainable home renovation. A one-stop-shop service. The value proposition from the renovation itself is: - Improved living conditions: warmer, healthier, and more energy efficient houses - Savings on energy spending through both increased awareness on energy use and the improved energy efficiency - Reduced GHG emissions To communities ECTC also offers the following social and environmental value: - Job creation at local level: both directly through the renovation projects and indirectly through improved spending power through savings on imported fuel. - Reduced energy poverty - Reduced GHG emissions - Possible investments in community projects: the sales of carbon credits through the Energy Efficiency Obligation scheme generates revenue that can be invested in the community - Social benefits through empowerment and participation of citizens: for example, in the first Drombane/Upperchurch project an increased willingness of the residents to tackle community issues was noticeable.
Relationship with households/	The service serves households and the community (commercial and public buildings). They are thinking about building a membership model to make the governance model not only community led but also directly citizen led. Currently ECTC is in contact with the households only during the works stage (implementation of renovation

beneficiaries	measures). During the other stages (see renovation journey) the community energy teams are involved.
Communication channels	▪ Website ▪ Social media (local groups) ▪ Presentations at community events ▪ Word of mouth ▪ Through partners (including contractors)
Beneficiary segments	▪ Households: 'regular' & those receiving fuel allowance (eligible for more grant support) ▪ Communities (community buildings) ▪ Churches ▪ Assisted living dwellings ▪ Commercial businesses
Cost structure	Given that ECTC is mainly volunteer run the costs are limited. The costs include: - Wage costs for inhouse project developer - Cost of drafting the technical application for the grant funding from SEAI - Cost of recruiting/tendering for Technical Assessors - Cost of recruiting/tendering for local contractors Volunteer hours: both the people and board at ECTC and at the local energy teams many people are doing work on a voluntary basis. For example, just the board invests over 240 hours per year (10 board members, with 12 two hour meetings).
Revenue streams	ECTC is largely a volunteer based and non-profit group. They do have some revenues, with the main source being the sales of Carbon Credits. Household payments and government grants also go through ECTC, but all of these are invested into the renovation works. Recurring: - Carbon credit sales (revenues go to project manager + investment into community)

	- All Grants and payments go through ECTC; The homeowner pays ECTC, ECTC pays for Technical Assessor and the contractor. Once works are complete and validated we sell the energy savings Carbon credits (White Certs under the EEOS) to an Energy Supplier with which we have agreed a price per kWh. One off: - Interreg funding: also used to cover wage costs of project manager - Start-up funding from local community
Data gathering	-
Renovation journey	1. Apply to the initiative to join the scheme: ECTC applies to SEAI for funding every year, the homeowner applies to ECTC to get a Technological Assessment carried out on their property. The results are returned to ECTC and they discuss this with the homeowner and decide what upgrade measures are required for their house. If they wish to proceed with getting a free quote – ECTC sends out one of our contractors to price the job – prices comes back to ECTC and we send out the quote along with the Grant amount eligible for this upgrade and ECTC's fees. 2. An external expert (technical assessor) is contracted to do a technical assessment of the building 3. An advise is made on how to upgrade to BER 2. The technical assessor does the report and ECTC discusses the upgrade options with the houseowner 4. Quotation from the Contractor and ECTC 5. Sign an agreement with ECTC to carry out the work: ECTC are seen as a facilitator of the grant, and the homeowner signs a contract with ECTC to say they are progressing with works and pay a 25% deposit – however the contactor also signs a contract directly with the homeowner for the work. 6. Department of Social Protection (national government) signs and stamps grant application (when applicable) 7. Upfront payment to ECTC done – lower income households pay 20% of upfront amount; Beneficiaries of the service can 8. Quality assessment after the contractor has carrier out the work 9. On completion of the renovation project the grant amount is transferred to the homeowner (before end of

	year).
Certification	-
Professional skills/training	ECTC offers 'upskilling' regarding sustainable renovation measures for newer contractors that are involved in the service and gives workshops on the technical requirements of the government grant funder (SEAI).
Financial subsidies/loans	Government grants for homeowners: up to 35% for all homeowners, up to 85% for homeowners with lower incomes (receiving some types of benefits), up to 50% for community buildings, and up to 30% for commercial buildings. ECTC makes use of the Sustainable Energy Communities and Better Energy Communities grants. The grants require an upgrade to a BER B2 rating and houses need to be built before 2006. Loans: ECTC has partnered with local credit unions that can provide 'green' loans to homeowners to fund the non-grant part of the renovation costs.
Number of supported renovation projects	Between and 2012 – 2019 ECTC renovated 827 houses and 25 communal/commercial buildings in 13 communities leading to 8.8 GWh in energy savings
Investments	10.2 million euro invested between 2012-2019. Investment consists of both government grants and the own contribution by building owners. 2014: four communities of Birdhill, Drombane/Upperchurch, Kilcommon/Rearcross/Hollyford and Lorrha/Rathcabbin successfully renovated 111 houses and 2 community buildings, receiving a grant of €643k and

	generating 1GWh (Gigawatt/hour) in energy savings 2015: four communities of Borrisokane, Carrig/Riverstown, Cloughjordan and Loughmore joined. 135 homes and 3 Community building renovated, saving 1,180,000 kWh of energy, local investment of €1.2 m 2016: 126 houses and 5 community buildings renovated across the eight communities, saving 947,300 kWh of energy, with local investment of €1.3m 2017: four more communities joined: Burgess, Cappamore, Newtown, Puckane and Terryglass. This year's project was so big, it was split into two separate projects. ECTC undertook deep retrofits for the first time. 200 houses and 6 community buildings, saving 2,200,000 kWh of energy, with investment into Tipperary of €2.8m. 2018: changes in grant regulations reduced the amount of possible renovations. Total of 136 houses and four community buildings renovated. Under the *Better Energy Communities Scheme* (see accompanying country report) 104 houses and 3 community buildings, saving 933,429 kWh of energy, investment of €1.2m. 2018 was the first year for the *Sustainable Energy Communities*, ECTC was one of the first applications into SEAI for this new funding stream – with 21 houses and 1 community building upgraded, saving 233,400 kWh of energy, with investment of €245,000. Also the Deep Retrofit pilot Scheme they upgraded 11 homes, saving 600,000 kWh of energy, investment of €670,000 2019: ECTC renovated homes under the *Better Energy Communities Scheme* and the *Deep Retrofit Pilot Program*. In total 53 homes were renovated, saving 750.000 kWh, with an investment of 1.1 million euro. 2020: several deep retrofit projects started in 2018/2019 were finished in 2020 due to COVID19 related delays. Total investment amounted to 823.000 euro for 10 homes saving 753.000 kWh 2021: See: https://energycommunitiestipp.ie/projects/

Average project size	On average between 50 and 100 buildings (homes, commercial, and public buildings) are renovated per year. The amount varies year to year depending on the success of the funding applications. With regards to the pipeline building, I would like to know more about this : investment per year / average ROI / number of project and average size / amount of public euros invested to get to those investments / amount of euro borrowed / average percentage point on the loans / type of public touched / type of actions performed / upgrades obtained.
Conversion rate	-
Drivers	▪ Government grants; however the effect of the new grant schemes initiated in 2019 remains to be seen (see the country report for Ireland) ▪ There is a large potential for renovation in the region/Ireland. There is a large amount of detached houses with relatively high energy use and very fossil fuel intensive and expensive heating (oil). ▪ People in the locality/region are generally supportive of community/cooperative action ▪ People in the locality/region are generally supportive of improving energy efficiency. A lot of progress has been made in recent years on improving awareness on this topic.
Barriers	▪ Social benefits of sustainable renovations are not always valued. Especially the funders (national governments) have tended to look at cost per kWh when evaluating projects and ignore the wider social benefits the projects generate. ▪ The narrow windows for project delivery put risk on community actors: we apply to SEAI for funding in January, get a Letter of offer in March / April – we can only start works after this date, all works must be completed by mid-October of the same year – so yearly funding stream makes the projects much harder to sell to HO and contractors doing the works.

	▪ Changes in the wider economy: when there is a downturn in the economy people are less willing to spend on sustainable renovation, when the economy goes up people might prefer doing a 'regular' renovation (e.g. installing a new kitchen) instead of doing sustainable renovations partially funded with grants (which involves a lot of administration). ▪ Differing priorities of the national grant agency SEAI and communities: communities want to help their local people and retrofit as many houses as possible – SEAI just want the best value for money and put requirements of large scale commercial projects onto the communities projects to balance energy saving and costs – this makes it harder for small communities to compete ▪ Uncertainty around funding has also been a barrier to development, especially in 2019/2020. The grant money available for deep retrofits had been depleted much earlier than expected meaning that several projects (100's for the whole country) that had assumed being able to receive funding all of the sudden could no longer get the funding. This while people had already started work, rented an alternative home, or invested in planning. It took a media campaign by ECTC and their board members to convince the government to make more funding available. ▪ A lack of multiannual funding. Funding streams are on a year to year basis which leads to uncertainty about the durability of the services ▪ Some state and financial actors are do not fully understand, or are not supportive of cooperatives ▪ New grant programs by the national government are focussed mainly at achieving deeper levels of renovation (B2) this reduces the 'community development' aspect of renovation since fewer houses in a community can be renovated with the same amount of grant funding. Fewer people see the benefits of the programme. The move to deep-retrofit has made it much harder to get homeowners to sign up, since they are now obliged to do a much more extensive renovation of their home and invest much more. In Energy Communities Tipperary Cooperative experience this bring renovations beyond the reach of many people in the community because they are simply too expensive. Is this relevant for you? E.g. how many of the homes that join the programme end up doing the actual renovation? Marcella would know this better. Meaning that, in the end, the amount of energy savings are not higher with a deep retrofit approach since fewer homeowners will be able to do it.

Next steps for development	The biggest priority for now is to develop a more sustainable busines model which less dependent on grant funding. This especially relevant given the shift of grants towards supporting deep-retrofits, which makes renovation more costly and less (or not) accessible for many in the Tipperary region.

SWOT analysis of Energy Communities Tipperary Cooperative business model

Strengths	Weaknesses
• Rooted in the local community which increases the likelihood that local residents trust the services offered. • Provides a 'hassle' free service (One-Stop-Shop) to citizens, communities, and businesses wanting to renovate their buildings. • Offers a trusted partner, governed by volunteers coming from the communities. • Extensive partnerships and collaborations with local partners – and continuing to expand this.	• Largely a volunteer run organization which limits the capacity to develop new projects and expand/replicate the service. • 'Inhouse' expertise is limited. Because the organisation relied on contracting external (technological) experts inhouse expertise did not get the chance to develop as much. This is currently being tackled. • Dependent on government grants to make sustainable renovation attractive to potential beneficiaries.
Opportunities	**Threats**
• Climate Action plan Targets - 500,000 installed heat pumps in 10 years; There is a large potential for renovation in Ireland and this is now supported by government targets on renovation and heat pump installation. • Government is signalling phase-out periods/dates for fossil fuel based home heating systems. This should lead to increased uptake of sustainable alternatives, also already in the years prior to actual phase-out. • New partnerships and collaborations will allow ECTC to source more funding streams, creating more employment locally	• National government grant funding shifting towards 'deeper' levels renovation; this limits the amount of homes in a community that can be upgraded, making it available for fewer people in the community (decreases visibility/community effect). • The Sustainable Energy Community program run by Irelands Sustainably Energy Authority can be both a threat and an opportunity to the development of citizen-led renovation activities, It could be a threat in the sense that communities join this program instead of a citizen-led program. Although this could lead to the same amount of renovations, it might not lead to the social benefits coming from citizen-led programs. Yet as Energy Communities Tipperary shows, it could also be an opportunity for a partnership in which the Sustainable Energy Community works together with a cooperative to provide sustainable renovation services.

	• A general lack of, or difficulty in acquiring, funding for sustainable renovations

Visualisation of Energy Communities Tipperary Cooperative busines model