Society for Co-operative Studies in Ireland

Co-op Power – opportunities for community-owned energy production in Ireland

Wood Quay Venue, Dublin City Council
8 April 2014

SEMINAR PROCEEDINGS REPORT

PROCEEDINGS REPORT COMPLETED BY TANYA LALOR

This seminar proceedings report is brought to you by the Society for Co-operative Studies in Ireland (SCSI).

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1. Introduction

This report outlines the proceedings of 'Co-op Power – opportunities for community-owned energy production in Ireland'. This seminar was held on Thursday 8 April 2014 in Dublin City Council offices (Wood Quay venue) and was organised by the Society for Co-operative Studies in Ireland (SCSI) with the support of the following organisations:

- Irish League of Credit Unions
- ICOS (Irish Co-operative Organisation Society)
- REScoop
- NABCO (National Association of Building Co-operative Organisations)
- Centre for Co-operative Studies, University College Cork
- TSA Consultancy

Context

In 2007, the EU agreed new energy targets, namely a 20% reduction in greenhouse gases by 2020, 20% energy efficiency by 2020 and 20% of EU energy consumption to come from renewable sources.[1]

Directive 2009/28/EC details how the targets will be met. Under the Directive, each member state is assigned an individual target which will contribute to the achievement of the overall EU goal. Each state has a number of sectors across which to reach the targets, namely heat, transport and electricity. Aside from reducing transport energy by 10%, each government has flexibility in how it attains its targets. Ireland's overall target is to generate 16% of all energy from renewable sources.

Moreover, Ireland's Programme for Government (2011) states that sustainable energy policy will aim to increase the use of renewable energy and improve the energy performance of all new building developments. It advocates the use of renewable energy systems in industrial developments. The plan also calls for a high standard of energy efficiency in all housing developments and encourages developers and owners to retrofit their homes. The report suggests that non-domestic heat and power plants be fuelled using biomass.

The plan commits to facilitating the development of energy co-operatives for small scale energy providers. In the area of wind energy, the plan 'will ensure that future wind farms

[1] *National Renewable Energy Action Plan*. Department of Communications, Energy and Natural Resources (2010). Dublin: Government Stationery Office

are built in locations where wind regime is best and that they are built in large numbers or in clusters to reduce cost of connection to grid.'

The government is also committed to the development of a vibrant social enterprise sector and to support the co-operative sector. It is for the reasons outlined above that the Society for Co-operative Studies in Ireland decided to host a seminar on the potential benefits to Irish communities and Irish society, if renewable energy co-operatives were successfully operating throughout the country.

Seminar running order

10.45am	**Registration** and tea/coffee
11.00am	**Welcome** - Gerard Doyle, Secretary, SCSI
11.05am	**Opening of Seminar** – Dr. Brian Motherway, CEO, SEAI
11.15am	**An overview of renewable energy co-operatives** in the EU – Dirk Vansintgan, Coordinator, REScoop 20-20-20
11.35am	**European good practice. Chair - Gerard Doyle** • Dr Andreas Wieg, German Co-operative and Raiffeisen Confederation - *the success and growth of co-ops in Germany* • Erik Christiansen, Chairperson of the Middelgrunden Offshore Wind Co-operative, Denmark – *biogasification co-operative in Denmark* • Dirk Knapen, REScoop 20-20-20, Belgium - *Integrated 100% sustainable energy systems and their benefits* • Tanja Gaudian, Elektrizitätswerke Schönau (EWS), Germany - *How the organisation became a renewable energy supplier.* • Dick Van Elk, Organisatie voor Duurzame Energie (ODE-NL), Netherlands – *Do it Yourself: 25 Years Renewable Energy by De WindvogelErik*
12.35pm	Plenary discussion
1.00pm	Lunch
1.30pm	**Good practice in Ireland. Chair - Bridget Carroll** • Dara O' Maoildhia, chairperson, Comharchumann Fuinneamh Oileáin Arainn / Aran Islands Energy Co-Operative - *Case study*
2.15pm	Ray Doyle, Irish Co-operative Organisation Society (ICOS) - *the challenges in establishing renewable energy co-operatives in Ireland*
2.30pm	Questions and discussion
2.45pm	**Buzz groups**
3.30pm	Feedback from buzz groups
3.50 pm	**Concluding remarks and evaluation** – seminar end at 4pm

Format of this report

This report outlines the proceedings of the seminar, the issues raised by the speakers and the presentations, as well as the key points arising in the discussions.

The format includes:

- Outline of presentations, questions and discussions
- Evaluation of the event and feedback
- Attendance list and evaluation responses

Please note: due to the large size of the presentations, they are not included in this conference proceedings document. However, they are available in electronic format, and if you wish to receive copies of the presentations, or have any other queries, please contact: gerdoyle@tsa.ie.

2. Opening session

Opening address: Gerard Doyle, SCSI

Gerard Doyle, Secretary of the Society for Co-operative Studies in Ireland (SCSI) noted in his introduction the pivotal role that co-operatives have played in addressing the many challenges Irish society has faced over the past one hundred and fifty years, including agricultural co-operatives, the credit union movement (the world's largest financial cooperative, per capita) and building co-operatives. Representatives of these co-op structures were present at the seminar, including the organisations that supported the initiative which were acknowledged by the SCSI.

The purpose of the seminar was to highlight how communities can develop renewable energy co-operatives. Energy prices in Ireland have increased significantly over the past decade which has resulted in thousands of families experiencing fuel poverty and having their energy supply cut off. At a macro level, Ireland imports over 80 percent of its energy, and with the potential of regional conflicts, Ireland's energy supply is therefore vulnerable. It follows that it is timely that Irish communities have begun to follow a similar path to other European countries in embracing renewable energy through forming renewable energy co-operatives. As well as European examples, Gerard pointed to Irish based co-ops from the Aran Islands and Camphill community.

Opening speech: Dr Brian Motherway, CEO, SEAI

The seminar was formally opened by Dr. Brian Motherway, CEO of the Sustainable Energy Authority of Ireland. Brian welcomed the seminar and spoke of the need to develop sustainable responses to energy production in Ireland, and the need to focus on having a solution-based response to challenges in energy production.

However, there are no magic solutions. The co-operative movement has an important role in addressing the challenges and being part of the solution, not least because of their characteristics: for example, the central role and relationships they have within communities, and because of the mutual benefit for communities in co-operative energy.

Brian expressed his strong support for the seminar, and interest in hearing of outcomes from the day, and the interest of the SEAI in being part of the process and outcome of community engagement in renewable energy.

3. European best practice

An overview of renewable energy co-operatives in the EU

Dirk Vansintgan, Coordinator, REScoop 20-20-20

Dirk coordinates the REScoop 20-20-20 project.[2] REScoop 20-20-20 is an initiative launched by the federation of groups and co-operatives of citizens for renewable energy in Europe with the support of the Intelligent Energy Europe Program (European Commission). Twelve organisations in seven countries have joined forces to increase the number of successful citizen-led renewable energy projects across Europe. He has been working in the renewable energy sector since 1985 and was one of the founders of Ecopower, which is a co-operative under Belgian law for financing renewable energy projects, founded in 1991. Ecopower has a membership of 50,000 and 50 million euro equity.[3]

Dirk's presentation gave an overview of the context for the establishment and development of renewable energy co-operatives, the barriers they experience, and policy measures that they require. It is estimated that there are almost 2,400 energy co-operatives throughout Europe, much higher than anticipated by the group when researching the sector.

One of the barriers to co-operative development is that there is little information on how they have developed. The point was made that co-ops can be reluctant to share their knowledge and this is a drawback as information is needed in order to advocate and lobby for State support for renewable energy co-operatives.

In certain regions across Europe, co-operatives are not prevalent. For example, in former communist countries, policies are generally not supportive towards co-operatives (for example, in Poland). This arises for political and historical reasons, where co-operative structures were controlled by the former-communist regimes.

Dirk noted the importance of establishing a coherent policy across Europe which enables the development of co-ops. He stated that we are in a period of transition –with regard to energy, and are shifting towards a more decentralised system of energy production, which favours co-operative engagement in the sector. For this to happen, advocacy at European level is very important with elected representatives and officials for more benign policies that support the formation of renewable energy co-operatives.

[2] http://www.rescoop.eu/

[3] http://www.ecopower.be/index.php/english

The success and growth of co-ops in Germany

Dr Andreas Wieg, Raiffeisen Confederation

Andreas is Head of the German Office for Energy Co-operatives and Director of the Executive Staff Department at the German Co-operative and Raiffeisen Confederation (Deutscher Genossenschafts – und Raiffeisenverband e. V.; DGRV)

He spoke about the role and development of energy co-operatives in Germany. The number of energy co-operatives in Germany has dramatically increased since 2008 when there were 67 co-operatives. By 2013 there were 717 with over 200,000 members.

A number of drivers of this growth were identified. These include legislation and policy from the State which set in place incentives such as:

- A feed in tarriff guaranteed for 20 years
- An obligation of the grid owner to purchase energy from renewable energy producers.

The factors for a successful energy co-operative include:

- A good organisational structure
- The involvement of local people (as this reinforces the mutual benefit)
- Local support for, and from, the local economy, including engagement with a range of different interests and stakeholders
- Social justice is also a goal of this energy process – as there is a focus on members' needs
- It is important to ensure stability and relatively low risk for members and potential members

The co-operative model can be very beneficial in securing buy-in where there is opposition to renewable energy projects, particularly wind-farms. Moreover, direct involvement in the community in co-ops also promotes awareness of energy use and energy conservation, providing regional added-value. At present in Germany, there is some opposition to the development of wind farms.

New renewable technologies – the biogasification of wood

Erik Christiansen, Chair of the Middelgrunden Offshore Wind Co-operative, Denmark

Eric's background includes working as a trainee at the Nordic Folkecenter for Renewable Energy[4], and organising study tours on renewable energy supply initiatives. In Belgium, he worked for 11 years in the environment movement on climate and energy issues, both in policy and in projects, before joining REScoop.be in 2012.

He is involved in two off-shore wind co-operatives, and on the board of a bio-gasification co-operative. He also has a professional involvement in district heating systems as a manager.

The co-operative involved in gasification is an innovative project. The point was made that the private sector tends to view co-ops as an appendix in the renewable energy sector, and claim that they are not exploring new and innovative technologies. The perspective is that co-ops only use well established technologies but the speaker presented the project case study to counter this perspective.

Eric presented the biogas co-operative in Denmark as a case study. The context for this project relates to the Danes' attitudes to renewable – the dominant view is that they need to use them for environmental and social reasons. In 2025, it is estimated that Denmark will generate 100% of electricity and heat production from renewable sources (which is 10 years before the target date). At present, there are some days when Denmark's electricity supply is sourced entirely from renewables, and coal and gas central power plants are being decommissioned.

Policy makers are almost unanimous in agreement about the national targets which is a very important factor. Denmark has a target to be a fossil free nation by 2050, including transportation. There is a lot of consensus on this in the Danish Parliament, and across the political spectrum. The public endorses this agenda and public support for renewable is positive.

Summary of the project

- Located in the town of Hillerød, 30 km north of Copenhagen, which has a population of 45,000 people and 20,000 households
- The aim of the co-op is to generate heat and electricity from wood chips which are grown in a local forest and are sustainable. The target is to produce heat for 400 households and electricity for 700 households.

[4] http://www.folkecenter.net/gb/

- Connected to the local district heating company, a non-profit company (a non-profit element is a key feature of municipal distribution in Denmark).
- The co-op was connected to the national grid in Denmark (which is State-owned) within two days of application, at no cost.
- Bio-gasification is a process that involves the use of heat and air to extract wood gas (the energy source), at very high temperatures (1200 degrees Celsius).

Development of the project

This project was initiated in 2008 with the support of a government grant from the Danish Energy Agency (EUDP[5]) for start-up funding. Its first purpose was to raise awareness about the potential of bio-gasification.

The point was made that while there is no legislation concerning co-operatives in Denmark they can easily be registered.

At the end of the initial awareness raising project, the Danish Energy Agency agreed to further support the project, in 2010. The co-op devised a prospectus for potential members – this included frank details about the potential benefits and failures. As this is a demonstration project it is relatively risky and success is not guaranteed. The emphasis in the prospectus was on the benefits if it did work (including the creation of jobs).

The grant secured from the EUDP in August 2010 included the condition that all shares (1,050) had to be sold to local people (€1,000 per share) before December 2010.

As a result an extensive marketing campaign was undertaken in September 2010 in order to achieve this target. The marketing process involved explanations of the bio-gasification process and was accompanied by extensive media and advertising (advertisements, radio broadcasting and local newspapers). Greenpeace supported the project. The marketing process was started in August 2010 and completed by December 2010. By this stage all the shares were sold, and by the following April (2011), the capital of €3 million was in place.

The project is currently preparing for start up, and by May 2014, it will be operational.

Important considerations include having support of alliances (including Greenpeace as well as other environmental groups). It was also important to continuously communicate and outline its progress to those who were investing in the project.

[5] EUDP supports the development and demonstration of innovative energy technologies. The aim is to promote the efficient use of energy and help to make Denmark independent of fossil energy in 2050. EUDP provides grants for projects that contribute to the development of Danish business potential for growth and employment. Furthermore the fund promotes international co-operation on new energy technologies. The technologies include, inter alia, bio-energy, hydrogen & fuel cells, wave energy, CO2 storage, energy efficiency, geothermal, solar, wind and gasification.

Integrated 100% sustainable energy systems and their benefits

Dirk Knapen, REScoop 20-20-20, Belgium

Dirk's presentation focused on the changing market and prices for energy and renewables, across Europe. In the last number of years the following changes have occurred:

- The price of renewable energy has come down by approx 25% in the past six years.
- Wind and solar are important in this regard, as once the initial capital investment has been made, there are few marginal costs.
- The trend has been noted by Moody's which has projected that thermal energy generators' credit rating will diminish as a result.

It is anticipated that this lower cost of energy will lead to an increased use of solar and wind energy, accompanied by back-up energy systems based on bio-mass or bio-gasification (for which the production can be controlled) to address fluctuations in solar and wind energy production.

An increasingly decentralised system of energy production will attract more people who will produce their own energy and will go 'off-grid'. If this occurs, the costs of the grid will be distributed across a smaller number of people, which increases cost.

Dirk believes that the only way European Union citizens can manage this is by putting in place structures between big centralised energy generation structures and individual approaches. This is an interesting space for co-operatives and has the potential to resolve this issue. Case examples are cited in the slides, and include the following projects:

- BronsGroen[6] in Belgium, which is involved in Photo Voltaic (PV) and wind projects as well as promoting renewables and supporting those experiencing fuel poverty.
- Otok Krk in Croatia which supports the purchase and installation of PV and solar installations.
- Sifnos Island Green Energy Co-operative[7] in Greece, which is involved in a wide range of projects including proposals to develop wind energy projects, and lobbying the state.

[6] http://www.bronsgroen.be/

[7] http://sifnosislandcoop.gr/cms/

How Elektrizitätswerke Schönau (EWS) became a renewable energy supplier

Tanja Gaudian, Elektrizitätswerke Schönau (EWS), Germany

EWS[8] formed as a result of the Chernobyl power plant disaster which raised awareness of the risks of nuclear energy. A group of people in Schönau (a small town in the Black Forest) came together to form an organisation named 'Parents for a nuclear-free future' (EfaZ). They first started to raise awareness of energy consumption across the general community. The group hoped to gain support and endorsement from the local energy supply company around promoting energy conservation, but, it was not supportive.

The work of the group coincided with the renewal of the license to operate the grid, and the supplier and operator of the grid (KWR) was seeking a renewal of the license 4 years before the license expired. The group campaigned for the license not to be renewed, eventually succeeding in their campaign for a local referendum to decide how the grid was to be managed and run. The results of the referendum supported the licensing proposals of EWS.

The group established the Netzkauf GbR in 1991 and made plans to buy the electricity grid themselves. EWS was created in 1994 as a 100% owned subsidiary Netzkauf GbR. EWS succeeded through buying the electricity grid in 1997. After this first success, EWS expanded and is now also the owner of the gas network in Schönau and neighbouring Wembach. During the following years, grids in eight neighbouring villages were bought as well.

EWS provides electricity for about 137,000 people and gas to around 8,500 people that they buy on the European markets. They have a membership of 2,700. They currently own various installations that produce about 1% of the energy they provide.

[8] http://www.ews-schoenau.de/

25 years of community owned energy production in the Netherlands

Dick Van Elk – Organisatie voor Duurzame Energie (ODE-NL), Netherlands

Dick is part of a group that formed in the town of Reeuwijk (population 12,840) in the Netherlands in 1988 in order to address environmental and social concerns.

After exploring a number of projects, the group decided in 1990 to start a co-operative, De Windvogel[9], with the objective to produce its own renewable energy.

In 1993/4 the group built its first wind turbine and it produced energy for about 30 households. At present, De Windvogel is a co-operative with 3.300 members, six turbines, and produces 7,500,000 Wh/year. This is sufficient to fulfil the total electricity demand of its members.

De Windvogel is a member of ODE, (Organisatie voor Duurzame Energie)[10] which is the association for renewable energy in the Netherlands and which represents 15 co-operatives with a total of approximately 15,000 members.

In terms of the general interest in the Netherlands, the point was made that in more than 300 of the 403 Dutch municipalities initiatives are underway to start renewable energy co-operatives. One of the key lessons was the need to consider the role of government in being a support or indeed an obstacle in the development of individual projects. It can be the most critical factor in enabling the formation of renewable energy co-operatives.

Questions

A short question and answer session was addressed to the panel of speakers. The main themes of the panel question and answer session focused on the role of key stakeholders in supporting renewable energy: including the State, the co-operative sector, and the trade union movement and other social partners across Europe.

Responses

State support - The bio-gasification project in Hillerød, Denmark, that Eric is involved in has received 50 percent of its funding from the State. The point was made that government support for projects across Europe varies depending on the type of renewable

[9] http://www.windvogel.nl/
[10] http://www.ode.be/

energy that is being pursued. For example, in Scandinavia, there is relatively little support for wind generation projects.

In Germany, ElektrizitatsWerke Schonau (EWS) did not receive direct government support, but there was support around legislative provisions (for example, holding the referendum).

Speakers also referenced the importance of community support, which provides legitimacy for projects. In some of the case studies outlined in the presentations, the role of the media in was credited as important in their development.

Support from trade unions – there was no known examples of trade union support for renewable energy initiatives. The bio-gasification project did not receive trade union support, but the Middelgrunden offshore wind co-operative has recently erected a major 60 MW offshore wind farm and the local workers' pension fund have purchased all the turbines.

Support from co-operatives - This varies across Europe: for example, there is a fractured co-op movement in Belgium and the division is thought to undermine the sector – it is not involved in support of renewable energy co-operatives at all. There is varied co-operation between co-operatives in different European countries, with Denmark considered to have the most collaboration.

Finally, a question for delegates to consider from Bill Kelly of Limerick Community Grocery. Bill asked whether there might be an interest in exploring the potential for a consumer co-operative for electricity distribution in one of the larger cities or urban areas in Ireland, and to learn from models elsewhere. Limerick Community Grocery would be very interested in hearing from those who may be interested in the idea.[11]

[11] Limerick community grocery is first co-operative grocery store in Limerick - owned, controlled and operated by the community. http://www.limerickcommunitygrocery.com/

4. Renewable energy co-operatives in Ireland

The afternoon session was chaired by Bridget Carroll, Committee Member of the Society for Co-operative Studies in Ireland, and researcher in the Centre for Co-operative Studies in University College Cork (UCC).

Aran Islands Energy Co-Operative[12]

Dara O'Maoildhia, Chairperson, Comharchumann Fuinneamh Oileáin Arainn / Aran Islands Energy Co-Operative

Dara introduced the Aran Islands and the local context for the forming of the energy co-operative. The islands lie off the West Coast of Galway. There are 1,251 inhabitants between the three islands. In spite of the landscape, with few trees and an exposed Atlantic coast, communities have lived here in a sustainable manner for thousands of years. The Aran Islands is a Gaeltacht area (one of a number of areas where Gaelic is the predominant language).

Drivers for the co-op

The co-op was established to protect the islands' economy, heritage and environment; to provide employment; and to enable economic self-determination within the community. Migration to the cities and emigration has been part of the experience of the islands. The co-op also believes that there are many other benefits from renewable energy, such as attracting enterprises into the area, and strengthening the capacity of the islands' economy as a whole.

Heating and transport fuel are transported onto the island by way of cargo vessel – as a result, it is 25 percent more expensive compared with the mainland.

In terms of assets, the islands have twice the wind-speed average of mainland European cities (such as Berlin). There are few other areas and communities with such exposure to Atlantic winds. The area has a wind speed of approx 8.2 metres per second at 20 metre height, whereas in mainland Europe it is approximately 4 metres per second.

The co-op structure is open to all residents of the islands. Membership is open only to those living on the islands. As it is a co-operative it is a democratic organisation with one share per member and each share costs €100 per member. Businesses can join the co-

[12] http://www.aranislands.ie/blog/Aran-Islands-Facebook/facebook-id-bcb6a357a4bdbcc0c04e2323c0d394bd

operative. At present there are 62 members of the co-operative, and the objective is that all islanders will become members.

The community owned co-op has established a wholly owned subsidiary (Aran Islands Renewable Energy Limited). The wholly owned subsidiary structure was selected in order to facilitate outside investment in renewable energy initiatives, without impacting on the community co-operative structure, and also to protect the community co-operatives (by limiting its exposure to risk).

There are plans to develop other commercial renewable energy companies (as subsidiaries of the co-operative) but in all cases, the co-op will retain 51 percent ownership of all subsidiaries – so it will remain in control of these businesses but can still attract investment from elsewhere.

Actions

The co-op has a ten year plan, already in progress. Amongst the actions are:

- Retrofitting the 500 homes in the Islands to improve their energy efficiency. 266 people have signed up for retrofit to date – over half of all houses in the community. Approximately 75 percent of funding for retrofit has been supplied by the State. The plan in 2014 is to continue retrofitting houses, as well as community buildings;
- To electrify the island (remove reliance on fossil fuels) and to generate its own electricity and to own the source of the generation;
- To attract clean energy industries and act as a research centre for renewable energy;
- To provide education and awareness regarding renewable energy;
- Ultimately, the plan is to be self-sufficient in energy terms. To date, actions have included the following: 8 Kw photovoltaic energy production, 3 electric cars, installation of solar thermal panels to 50 houses. The co-op has also installed new generation energy efficient storage heaters, and digital remote monitoring equipment in a number of community buildings.

Important allies

Some of the key alliances include First Class Insulation, Tipperary Energy Agency, National University of Ireland Galway (NUIG), Sustainable Energy Authority of Ireland (SEAI), and Galway Mayo Institute of Technology (GMIT), Tindall National Institute (University College Cork), Údarás na Gaeltachta, Micro Energy Generation Association of Ireland (MEGA), amongst others have collaborated with the co-op. This support is very important.

Key influencing factors

- Local leadership is critical, as are community commitment and champions
- Local community support is essential
- Government support is important – but there is a lack of government support for bottom-up approaches
- Structural issues – difficulties in gaining access to the grid, low Feed in Tariffs (7c per Kw/hour wind in Ireland, 26c (22 pence) per Kw/hour in Northern Ireland)
- Restrictive planning laws
- A strong united committee is very important
- Clarity on plans, information and communication: for example, developing clear and time-scaled action plans
- Lots of networking and building of alliances (see above)
- Good corporate governance and tight financial controls

The challenges for establishing renewable energy co-operatives

Ray Doyle – livestock and environmental services executive, Irish Co-operative Organisation Society (ICOS)[13]

Ray's presentation considered how Ireland fares (in relation to the establishment of renewable energy co-operatives) compared with the rest of Europe, as well as the barriers to their establishment and development, particularly in policy terms.

Ireland is not progressing in relation to renewable energy co-operative development. Ireland has ten energy co-operatives in existence, while Denmark has 100. The co-op model has proven itself sustainable and should have a strong role to play in energy. There is a big energy market in Ireland. Importing energy and reliance on others to meet our energy needs is not a good medium or long term strategy.

In Ireland, a number of short rotation crops have been tried, such as oilseed rape, miscanthus, and willow. However, these attempts have had very limited success, primarily because of little support from the state for these crops.

A significant barrier to the establishment of renewable energy co-operatives is the low Feed-in-Tariff for renewable energy production in Ireland. This compares unfavourably with

[13] http://www.icos.ie/

other countries, and in particular, Northern Ireland (NI), and the effect of this is significant. Producers of crops are exporting to NI, where the FIT has led to growth in this sector. Producers of energy need to get paid a commercial rate for what they produce for involvement in this sector to be viable.

In order for an interest in energy co-ops to develop, there must also be enough common interest and shareholding, as people will not buy into renewable unless there is a mutual benefit. This can also support progress in areas where there may be opposition to renewable energy.

As mentioned in the earlier presentations, access and connection to the grid is a key element for supporting renewable projects. This has been facilitated in a number of European countries, and Germany provides good legislative provision – connection to the grid must be secured within a two year period. If a supplier does not achieve connection within the two year deadline, they are entitled to compensation for loss of earnings. In some countries, connection is secured within a number of days. In Ireland, it can be several years before grid connection is achieved.

Questions and discussion points raised

Some of the discussion points and themes of the question and answer session included:

- The need for storage and back up and energy for stability of supply.
- The important role of the co-operative movement and credit unions in the process, as well as social finance institutions, such as Clann Credo and Ulster Community Investment Trust (UCIT).
- Fears that the state aid rules are being used in the EU to choke off state support for co-operatives.
- The development of inter-connectors[14] is given priority at national and EU level and this impacts on support for local renewable energy co-ops
- Grid connection as a barrier - some renewable initiatives applied for a grid in 2004 in Ireland and have not got it yet.
- There was a view that EU rules and provisions in relation to renewable energy are not adequately implemented at national level.
- There is massive lobbying at European level by large companies which will mitigate small producers and co-ops.
- It is worth exploring crowd-funding[15] opportunities.

[14] An interconnector is a connection between the electricity transmission systems of different countries, for example via subsea cables. An interconnector provides the opportunity to trade electricity with other countries.

- The question was asked as to how we can develop a model that can benefit people living in urban areas and cities (in addition to rural)?
- It is essential to communicate the issues with Feed in Tariffs, as progress will not be made until this is resolved. Local newspapers have supported a 'get involved' initiative around local energy and local food production in the form of co-operatives. It is important to collaborate with local media, as they access a readership of 1.7 million readers.

[15] Crowdfunding is the collection of finance from backers—the "crowd"—to fund an initiative and usually occurs on Internet platforms.

5. Group discussion

In the afternoon, following the presentations from Ireland, delegates formed five groups to discuss a number of issues over a period of 45 minutes. Four questions were circulated to the groups. Each group identified one person to take notes and to report back to the wider group. In this section, the key feedback points are presented.

What are the barriers and risks to communities in engaging in renewable energy co-operatives? How can these be overcome?

The general feedback included the following responses:

- Difficulty in getting connected to the national electricity grid compared with the European experience
- Long-term capital required
- The mindset of community organisations not seeing the opportunities of embracing renewable energy
- Urban communities think that it is only possible in rural communities.
- Perception that it is a middle class, elitist activity.
- The lack of visibility of renewable energy co-operatives in Ireland.
- Learn from what works elsewhere and collaborate
- Lack of a Government strategy for supporting renewable energy co-operatives

What are the supports required for setting up renewable energy co-operatives in Ireland?

- Combine buyers and producers
- Leaders in communities
- Support to do an audit to find out what types of renewable energy most suited to the location
- Expertise in the follow areas:
    - Guidance on the technology
    - Forming a legal structure
    - Business planning
    - Access to different types of capital.
    - Local authority support around how to engage with planning processes

- Pilot and research projects (SEAI and the Department of Communications Energy Natural Resources should resource).
- Credit unions to give a small grant for business planning and technical assistance
- Local Enterprise offices to provide financial assistance
- ICOS provide support in rural communities.

What types of renewable energy (e.g., Biomass, wind, hydro, etc.) do you think have the greatest potential in Ireland?

- This depends on the needs and desires of the community and their needs
- It also depends on resources that are available, and on what is appropriate for the area in terms of the landscape, location and geographic characteristics (e.g., for hydro, wind, etc.)

What needs to happen to convince communities to establish renewable energy co-operatives?

- Education and communication
- Support from ICOS
- A route to market
- Belief
- Energy consumer co-operatives that produce energy
- Examples of what works: network of those engaged and experience of those who have been involved in co-ops for nascent co-ops
- Using open source tools to prepare and lobby and advocate for change around regulatory issues and at European level
- Need to look at new technologies
- Use a mix of technologies including dispatch storage. Some sources are heavier on the grid (e.g., wind) and there needs to be some recognition of that.
- Banks require 3-5 year payback and so "patient" capital is required
- Lobbying
- Wave and tidal power not spoken about today – good to discuss and explore the potential of these
- National targets need to be set for community renewable co-operatives.
- Have workshops on a regional basis, at which there would be examples of renewable energy projects present e.g. Camphill, Templederry Community Energy, and Aran Islands.

- Toolkit for communities including case studies in Camphill and Templederry and International.
- A small number of renewable energy co-operatives that embrace different types of renewable energy need to be established to showcase the possibilities for renewable energy co-ops.
- SCSI to publicise, with other organisations, the benefits of renewable energy co-operatives across the national media.

6. Conclusions and next steps

Gerard Doyle closed the proceedings, noting that the Society for Co-operative Studies in Ireland (SCSI) would be interested in forming a partnership with others to progress the development of renewable energy co-operatives in Ireland. The SCSI is also interested in collaborating with others in making a submission as part of the consultation phase in response to the government's launch of the Energy Policy Green Paper for Ireland.[16]

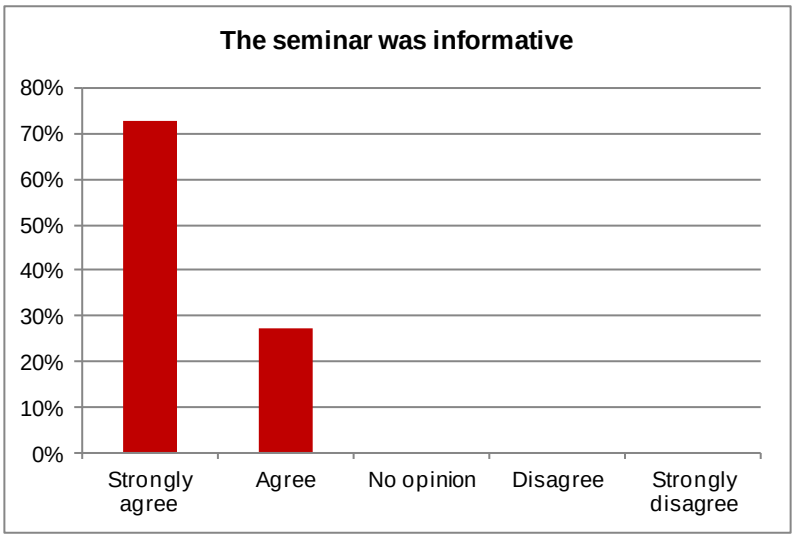
Gerard Doyle noted that a working group would follow from the seminar to progress ideas raised. The SCSI is happy to facilitate its formation and maintenance with the delegates present. Each delegate was asked to ensure that they completed the registration process, and gave their contact details if they are interested in getting involved in the proposed working group.

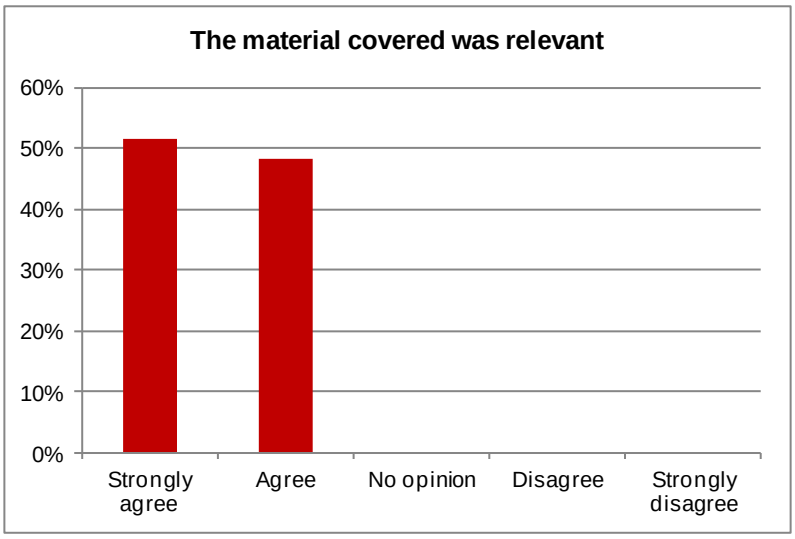
[16] The Minister for Communications, Energy and Natural Resources launched the Energy Policy Green Paper for Ireland in May 2014, marking the beginning of a ten week public consultation on the future shape of Ireland's energy policy. The consultation phase will end in July 2014. The Green Paper Consultation can be accessed www.dcenr.gov.ie/greenpaper .

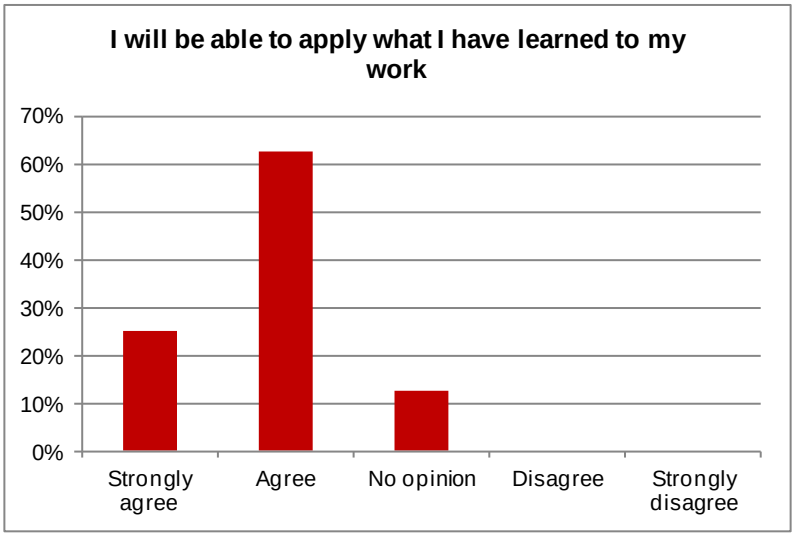
7. Evaluation

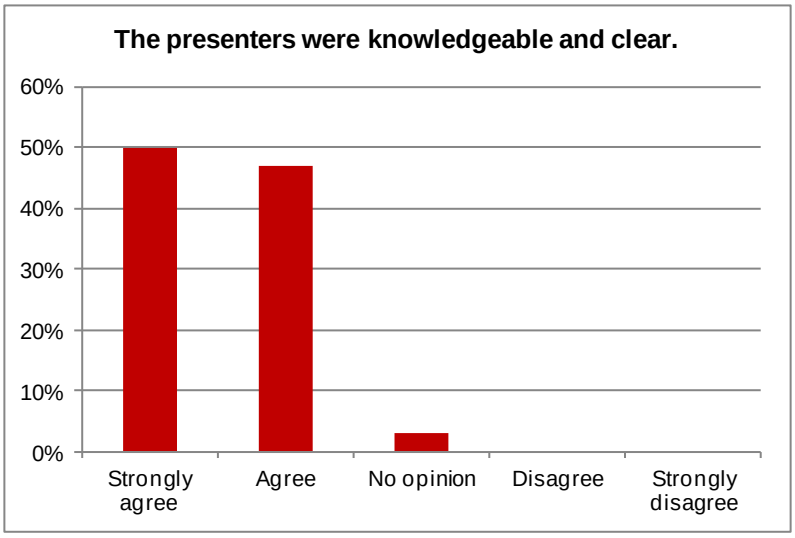
Of the 102 delegates who registered their attendance, 33 completed evaluation forms (a response rate of 33%).

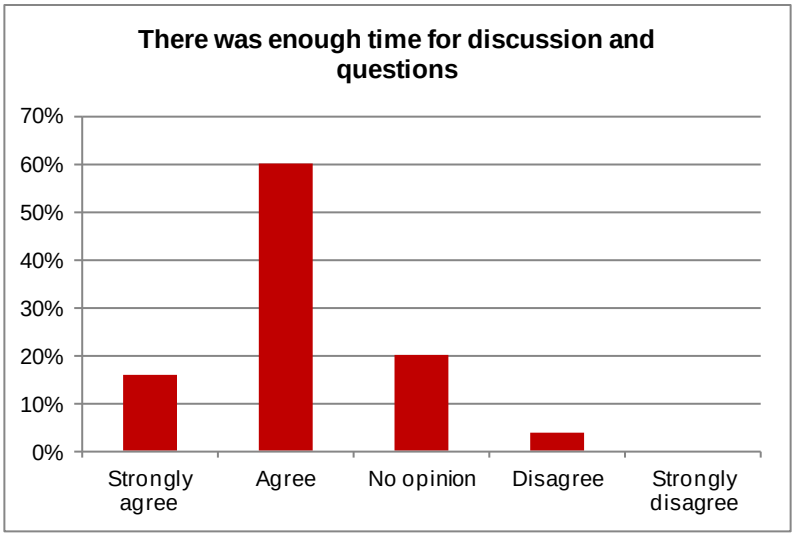
Participants were first asked to read a number of statements and respond by circling the response that best reflected their view. The results are outlined below as a percentage of all respondents.






I will be able to apply what I have learned to my work
70%
60%
50%
40%
30%
20%
10%
0%
Strongly agree
Agree
No opinion
Disagree
Strongly disagree

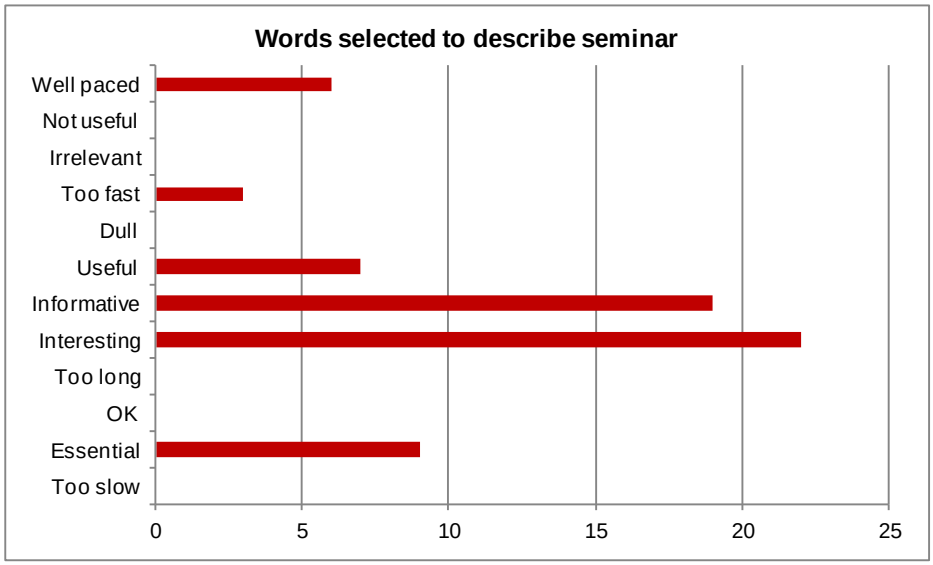

The presenters were knowledgeable and clear.
60%
50%
40%
30%
20%
10%
0%
Strongly agree
Agree
No opinion
Disagree
Strongly disagree


There was enough time for discussion and questions
70%
60%
50%
40%
30%
20%
10%
0%
Strongly agree
Agree
No opinion
Disagree
Strongly disagree

Respondents were also asked to select from a list of 12 words, 1-2 words that best describe their views on the seminar. The words and the responses are outlined in the table below (in order of their frequency) and in the graph that follows:

Too slow	0
Essential	9
OK	0
Too long	0
Interesting	22
Informative	19

Useful	7
Dull	0
Too fast	3
Irrelevant	0
Not useful	0
Well paced	6



The comments included:

This event was amazing, super high energy injection to the community co-operative energy scene in Ireland. Huge thanks to all involved, let's keep this momentum building!

Interesting seminar which has motivated me to get involved in setting up a renewable energy co-operative with my neighbours.

Not enough time for discussion

Very good introduction to the whole area but there needs to be immediate follow up

Could have talked for hours!

It may have been useful to allow more feedback before lunch

Excellent broad range of European projects. I don't think that we explored enough opportunities for community owned energy production in Ireland – the policy and drivers need to change

Too much quasi-political polemical stuff in the morning session…loved the Aran Islands presentation…enjoyed the workshops…a well run and worthwhile event…well done

More information on funding opportunities for co-ops would be helpful – ensure that information is distributed to policy makers

Great to hear European and Irish examples of communities taking ownership. We have a strong tradition of co-ops in Ireland – harness that to form energy co-ops

Absolutely brilliant event. One of the best conferences I've ever been to

Appendices

Seminar attendees

FIRST NAME	SURNAME	ORGANISATION
Gregg	ALLEN	Cloughjordan Ecovillage
Martin	BEHAR	Co-operatives Europe
Julian	BLOOMER	
Danielle	BYRNE	
Bridget	CARROLL	Society for Co-operative Studies in Ireland
Barry	CASLIN	Teagasc
Erik	CHRISTIANSEN	Middelgrunden
Alan	CLEERE	
Anne	COSTELLO	Galway Traveller Movement
Michael	COWHIG	Energy Quest
Brian	DAWSON	Irish Wind Energy Association
John	DORAN	LYIT
Elaine	DOYLE	
Gerard	DOYLE	Society for Co-operative Studies in Ireland
Ray	Doyle	Irish Common Ownership Society (ICOS)
Xavier	DUBUISSON	XD Consulting
Fergus	ENNIS	
John	EVERETT	Smith Everett and Associates
Tom	FEENEY	
Sunniva	FINLAY	Ballyfermot Star
David	FITZGIBBON	North and East Kerry Development
Gearoid	FITZGIBBON	NLTP
Stuart	FRASER	Irish Social Enterprise Network
Shirley	GALLAGHER	
Donna	GARTLAND	Energy Researcher, Codema
Tanja	GAUDIAN	EWS
Michael	GAVIN	Kenmare Credit Union
Andrew	GAYNOR	Dublin Institute of Technology (DIT)
Maëlle	GUILLOU	Enercoop
Joe	HAYDEN	
Grattan	HEALY	Ierne/Muintir na Gaoithe
Jan Willem	HEEMSTRA	REScoop.eu
Kevin	HELFERTY	Society for Co-operatives Studies in Ireland

Jennifer	HENNESSY	Clann Credo – The Social Investment Fund
Deirdre	HOSFORD	
Gijsbert	HUIJINK	Som Energia
Patricia	HUNT	Clondalkin Community Recycling Initiative
Patricia	HUNT	South Dublin Partnership
Bill	KELLY	Limerick Community Grocery
Peter	KELLY	BERtech, Rainbow Cottage
Leann	KELLY	BERtech, Rainbow Cottage
Liam	KELLY	Muintir na Tire
Elaine	KENNEDY	North and East Kerry Development
Fidelma	KEOGH	
Gerry	KINSELLA	
Dirk	KNAPEN	REScoop.be
John	KNOX	Irish League of Credit Unions
John	LALOR	Engineer
Tanya	LALOR	TSA Consultancy
Una	LAVELLE	Clondalkin Community Recycling Initiative
Nicola	LAWLESS	Kerry Flyer Ltd
John	LONG	Irish League of Credit Unions
Alan	MADDEN	
Gisela	MATEUS	Energy mutation
Goncalo	MATEUS	Energy mutation
Agnès	MATHIS	Co-operatives Europe
Dave	MATTHEWS	Irish League of Credit Unions
Jennifer	MCAREE	Dublin Institute of Technology (DIT)
Eamonn	McDONAGH	Asset Care Engineering Solutions Ireland
Douglas	MCILDOON	NI Co-Operative Forum
Gerry	MCKEEVER	
Anthony	MCNAMARA	South Dublin County Council, Forward Planning
Siobhan	MEHIGAN	Irish Common Ownership Society (ICOS)
Lynda	MITCHELL	ALIenergy
Jim	MONAGHAN	
Jeanne	MOORE	National Economic and Social Council
Niall	MORRIS	St Catherine's Community Services Centre
Máirín	MURPHY	Nadirkmore Energy
James	MURPHY	
Lugh	O'BRAONAIN	Energy Co-ops
Deiric	O'BROIN	NORDUBCO
Philip	O'CONNOR	

Roy	O'CONNOR	DCU
Rónán	O'DALAIGH	SEDCo
Dara	O'MAOILDHIA	Comharchumann Fuinneamh Oileáin Arainn / Aran Islands Energy Co-Operative
Tara	O'REILLY	
Emer	O'SIOCHRU	EOS Future Design
Felix	OLTHUIS	ODE-NL
Paddy	PHELAN	Carlow Kilkenny Energy Agency
Frank	REID	
Declan	RICE	Kilkenny Leader Partnership
Norman	RIDES	Dublin Food Co-op
Mathieu	RICHARD	Enercoop
Rudi	RIENZNER	Avanzi
Sebastià	RIUTORT	Som Energia
Eimhin David	SHORTT	Get Local
Eva	STEGEN	EWS
Duncan	STEWART	Eco-Eye, RTE
Donal	TRAYNOR	Ulster Community Investment Trust (UCIT)
Dick	VAN ELK	ODE-NL
Dirk	VANSINTJAN	Ecopower
Cormac	WALSH	Energy Co-operatives Ireland
Molly	WALSH	Friends of the Earth
Michael	WARD	Centre for Co-operative Studies, UCC
David	WIDDIS	EWC
Andreas	WIEG	DGRV
Matthew	WILLIS	ALIenergy
Timothy	WREN	
Davide	ZANONI	Avanzi
Joe	ZEFRAN	Dublin Food Co-op / Action Plan Co-op
Siward	ZOMER	ODE-NL
Matteo	ZULIANELLO	Avanzi

Biographies of speakers

Bridget Carroll is a lecturer in the Department of Food Business & Development and a researcher in the Centre for Co-operative Studies, University College Cork. Her research to date has focussed on organisational, legislative and regulatory aspects of co-operatives and on worker co-operatives. Bridget is Programme Director for the undergraduate component of "Pathways", a new suite of accredited education programmes for credit union officers across Ireland. Pathways is an academic-industry partnership between the Centre for Co-operative Studies and Adult Continuing Education, UCC and the Irish League of Credit Unions. It consists of six qualifications across certificate, diploma, degree and masters level. She is a committee member and former secretary of the Society for Co-operative Studies in Ireland.

Erik Christiansen. Chairman of the Middelgrunden Offshore Wind Co-operative, Erik has been the catalyst of establishing co-operatives dealing with wind (Middelgrunden, Samsoe, Aarhus and Hvidovre), solar (the Copenhagen PV Co-operatives), biogasification (Hilleroed Biogasification Co-operative) and district heating co-operatives.

Gerard Doyle. Ger has worked as a community development worker and in social enterprise development. He worked for Waterford LEDC, Ireland's first not-for-profit company involving the community and corporate sector. The Waterford LEDC aims to develop economies of a number of communities experiencing disadvantage by developing social enterprises. He has a particular interest in the potential that social enterprise has for providing disadvantaged communities, including Travellers, with a mechanism to address unemployment, gain assets for community use and stimulate economic activity. He works with TSA where he has assisted a number of communities in developing social enterprise strategies. Ger holds an MSc in Local Economic Development from the University of Glasgow. Ger is secretary of the Society for the Co-operative Studies in Ireland.

Ray Doyle. Ray works with the Irish Co-operative Organisation Society (ICOS) as Livestock and Environmental Policy Executive and has been with ICOS since September 2007. He is a graduate of University College Dublin having graduated with a Masters Degree in Agriculture Science in 1992. He then commenced working with the IAWS Group in their subsidiary master farm nutrition. He has also worked with Greencore in Greenvale animal feeds and the ICSA as their general secretary. Ray is also a part-time sheep and cereal farmer in Ballymore Eustace, Co. Kildare.

Dirk Knapen. Dirk has acted as a trainee at the Nordic Folkecenter for Renewable Energy, organising study tours for people to see for themselves what a renewable energy supply could be like. Then, back in Belgium he worked for 11 years in the environment movement on climate and energy issues both in policy and in projects before joining REScoop.be in 2012.

Dick Van Elk. Dick is co-founder and board member of co-operative association 'de Windvogel' and former president of the wind section of the Association for Renewable Energy in the Netherlands (Organisatie voor Duurzame Energie). For more than 20 years Dick has been promoting the REScoop movement in the Netherlands.

Tanja Gaudian. Tanja joined Greenpeace after the Chernobyl accident and became an anti-nuclear activist and speaker of the group. She studied political sciences and finished with a masters degree in peace and conflict studies. Before coming to EWS Tanja worked as a journalist for German magazines and newspapers focussing on energy and environmental issues.

Dr Brian Motherway was appointed Chief Executive of the Sustainable Energy Authority of Ireland in May 2012. SEAI is Ireland's national energy authority with a mission to play a leading role in transforming Ireland into a society based on sustainable energy structures, technologies and practices. Brian was previously Chief Operations Officer and Head of Strategy at SEAI. He holds Bachelors and Masters degrees in Engineering and a PhD in Sociology.

Dara Ó Maoildhia. Dara is chairperson of Comharchumann Fuinnimh Oileáin Árann Teoranta, the Aran Islands Energy Co-operative. The Co-op was founded in 2012. However, before that, a Coiste Fuinnimh (Energy Committee) existed on Aran for many years. In his other life, Dara is a wedding celebrant, an organic gardener, and a tour guide. He has published a number of books and is married with four children. He lives on Inis Mor but is originally from Dublin.

Dirk Vansintjan. Dirk coordinates the REScoop 20-20-20 project. Dirk has been working in the renewable energy sector since 1985 and was one of the founders of Ecopower, the Belgian federation REScoop.be and the European federation REScoop.eu.

Dr. Andreas Wieg is head of the German office for energy co-operatives and director of the executive staff department at German Co-operative and Raiffeisen Confederation (Deutscher Genossenschafts- und Raiffeisenverband e. V.; DGRV). He is also the author and co-author of numerous articles, scientific papers, brochures and books on co-operatives, especially regarding new co-operatives and renewable energy co-operatives. He holds a PhD (Economics) at the Faculty of Business Administration and Economics of Philipps-University Marburg, and is a visiting lecturer in business administration (company management, personnel, organization) at Berlin School of Economics and Law.