An Chomhairle Náisiúnta Eacnamaíoch agus Shóisialta
National Economic & Social Council
NESC

Wind Energy in Ireland: Building Community Engagement and Social Support

No. 139 July 2014

An Oifig Náisiúnta um Fhorbairt Eacnamaíoch agus Shóisialta
National Economic & Social Development Office NESDO

National Economic and Social Council

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1. The main tasks of the National Economic and Social Council shall be to analyse and report on strategic issues relating to the efficient development of the economy and the achievement of social justice.

2. The Council may consider such matters either on its own initiative or at the request of the Government.

3. Any reports which the Council may produce shall be submitted to the Government, and shall be laid before each House of the Oireachtas and published.

4. The membership of the Council shall comprise a Chairperson appointed by the Government in consultation with the interests represented on the Council, and

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   - Four persons nominated by business and employers' organisations;
   - Four persons nominated by the Irish Congress of Trade Unions;
   - Four persons nominated by community and voluntary organisations;
   - Four persons nominated by environment organisations;
   - Twelve other persons nominated by the Government, including the Secretaries General of the Department of Finance, the Department of Jobs, Enterprise and Innovation, the Department of Environment, Community and Local Government, the Department of Education and Skills.

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7. The numbers, remuneration and conditions of service of staff are subject to the approval of the Taoiseach.

8. The Council shall regulate its own procedure.

An Chomhairle Náisiúnta Eacnamaíoch agus Shóisialta
National Economic & Social Council

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Mr Noel Cahill,
Economist

A full list of the NESC Secretariat can be found at www.nesc.ie

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Abbreviations

AA
Appropriate Assessment

ABP
An Bord Pleanála

CARES
Community and Renewable Energy Scheme

CER
Commission for Energy Regulation

DCENR
Department of Communications, Energy and Natural Resources

DECC
Department of Energy and Climate Change (UK)

DECLG
Department of the Environment, Community and Local Government

DKK
Danish Krone

EIA
Environmental Impact Assessment

EEG
Renewable Energy Sources Act

EMF
Electromagnetic Fields

EPA
Environmental Protection Agency

ESB
Electricity Supply Board

EU
European Union

FOE
Friends of the Earth

GAA
Gaelic Athletic Association

HDA
Habitats Directive Assessment

ICOS
Irish Co-operative Organisation Society

IWEA
The Irish Wind Energy Association

LAP
Local Area Plan

LARES
Local Area Renewable Energy Strategies

MEGA
Micro Electricity Generation Association

MnG
Meitheal na Gaoithe

Mt
Million Tonnes

Mt CO_2
Million Tones of Carbon Dioxide

MW
Megawatt

NESC
National Economic and Social Council

OECD
Organisation for Economic Co-operation and Development

PPN
People's Participatory Networks

PSO
Public Service Obligation

PV
Photovoltaic

RE
Renewable Energy

RECE
Renewable Energy Community Engagement

REFIT
Renewable Energy Feed-In Tariff

REP
Renewable Energy Partnership

SCENIHR
Scientific Committee on Emerging and Newly Identified Health Risks

SEA
Strategic Environmental Assessment

SEAI
Sustainable Energy Authority of Ireland

SEZ
Sustainable Energy Zone

SID
Strategic Infrastructure Development

SLR
SLR Consulting

TCD
Trinity College Dublin

TEA
Tipperary Energy Agency

TER
Templederry Energy Resources Ltd

UN
United Nations

Executive Summary

From Challenge to Opportunity

Ireland faces an extraordinary challenge to move its energy system from one primarily based on fossil fuel to one dominated instead by renewable energies. There is potential for wind energy to play a central role in Ireland's transition to a low-carbon economy by 2050. With 180 wind farms currently in operation with 2080MW of installed capacity from over 1,300 turbines, wind energy in Ireland has developed considerably over the last twenty years.[1]

Irish people have generally been supportive of wind-energy growth and of electricity infrastructure, but recently there has been a more critical public mood. This signals something of a sea change in social support for wind energy and related infrastructure.

With the shift in public mood comes a responsibility to reflect on potential areas for change in policy and practice. The *Green Paper on Energy Policy in Ireland* recognises building societal acceptance as one of several challenges in further deploying renewable energy (DCENR, 2014a). Indeed, it invites discussion of a number of questions specifically about social support such as: How can we encourage citizens to be part of our transition to future energy paths and the policy-making process that goes with it? Given the scale of changes needed, what are the right mechanisms to engage citizens? What formal and informal mechanisms could be used to enhance citizen engagement with regulatory and policy decisions and how should they be structured? With a heightened awareness of the issues surrounding wind-energy development comes an opportunity to engage communities on their concerns but also to involve them in the transition towards a low-carbon society.

NESC Research and Consultation

In that context, the Council has sought to examine how social support for the transformation of Irish energy, and wind in particular, can be better understood and achieved. In 2013, it commissioned SLR Consulting (SLR) to examine the challenge of community engagement and social acceptance in Ireland and in three other

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1 Irish Wind Energy Association (2014) www.iwea.com.

jurisdictions. The two SLR reports are published alongside this Council report: (1) *Wind Energy: International Practices to Support Community Engagement and Acceptance* and (2) *Wind Energy: The Challenge of Community Engagement and Social Acceptance in Ireland*.[2] This report draws on that research and wider consultation with stakeholders to examine how social support might be furthered in the development of wind energy in Ireland.

Three Components of Social Support

In national and international accounts of the success and failure of renewable-energy projects, particularly wind, there are three components that we consider significant and that form part of the approach outlined here:

i. An overarching energy-transition process that facilitates and guides society-wide efforts to transform energy systems:

   An intentional, participatory and problem-solving process underpins German and Danish experience. An integral component of the process is a national discussion, informed by international best practice, about how to design an energy strategy in line with society's goals.

ii. An effective and inclusive process of public participation that helps to shape and share local value:

   A genuine and open participatory process for wind energy that brings expertise together, facilitates exploration and executes possibilities is critical. Communities that contribute to and shape the local value of energy are more likely to be supportive of future developments.

iii. Enabling organisations, and, in particular, intermediary actors, which support the kind of problem-solving and entrepreneurialism necessary to initiate renewable-energy developments:

   Intermediary actors have contributed to the successful development of wind-energy projects in other countries and in Ireland.

Our central argument is that there is a need to connect these in an integrated approach to build social support and community engagement.

Framing a National Response

We argue that a policy initiative on the process of wind-energy development needs to adopt a developmental and pragmatic approach. We outline a number of tools

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2 The reports are available at www.nesc.ie.

that offer a participative process to ensure that value is identified and shared in a fair, open and sustainable way. We present four workable tools to help convene and structure local discussion, exploration and problem-solving, as well as national-level benchmarking and learning.

Four Tools for Renewable-Energy Community Engagement

i. The substantive agenda around which engagement must occur:

While locally determined, the agenda for discussion should be informed by the need for progressive solutions in relation to Ireland's Energy-Transition Strategy. This means incorporating energy efficiency and renewable energies into the discussion and final outcome. In addition, there would be a developmental approach to shaping and sharing local value, so that the community's overall economic and social development would be the key objective.

ii. Required processes of inclusive community engagement that can both shape and share local value:

At the instigation of key stakeholders, a Renewable-Energy Community Engagement (RECE) process would be convened. Communities can be the instigators of this process, as can local authorities and developers. We envisage that RECE would be a required (mandatory) process for all developers at the earliest stage of scoping out projects in a particular community. The process would be participative and problem-solving in nature, so that all participants have a voice and opportunity to shape the discussion.

iii. The engagement and resourcing to enable actors and certified intermediary organisations to bring expertise, facilitate exploration and support execution of renewable-energy possibilities in a local area:

The role of a certified intermediary body is critical in this process and it would bring these tools, supported by guidelines and protocols, to the discussion.

iv. Linking locally negotiated agreed outcomes such as plans and settlements to a key national institution such as Sustainable Energy Authority of Ireland (SEAI), in a way that validates local agreements as well as creating a process of benchmarking and learning:

From the community engagement process, it may be suitable to draw up a local area energy plan, establish an energy co-operative or agree a settlement which included an element of community benefit, equity share or joint venture. If successfully concluded, any settlement would be registered with an appropriate body such as SEAI or Commission for Energy

Regulation (CER) and provide the basis for ongoing comparison, learning and continuous improvement.

This combination of a required but flexible process of engagement, with direct involvement and certification of intermediaries and final verification of what we call 'settlements', provides what we believe to be a positive way forward for Irish wind-energy development.

These tools would need to be supported by national policy supports and measures that would include directed resources, incentives and measures for promoting community and co-operative energy schemes; new financial mechanisms for public investment in renewable energies; and enhancing the key participative practices used by local authorities in their forward-planning functions. As a societal project, the process and policy framework we have outlined is achievable only with support from state agencies and departments, public and private organisations, communities and households.

NESC Recommendations

We believe it is *possible* to build social support with appropriate measures; we also believe it is *necessary* to enable continued development of wind-energy and energy infrastructure, and *beneficial* to Ireland's energy transition and society, given the job potential, social and environmental benefits of a low-carbon future.

We consider the three components identified at the start as critical to building social support for wind energy and related infrastructure: a National Energy Transition, strong local public participation and enabling intermediary actors. The research for this project confirms the key relevance of these three components and we have attempted to integrate them in a unique way for the Irish context. A National Energy-Transition process is required, which includes local participation and shared local value and a key enabling role for expert intermediaries. The challenge for policy is to design a framework to balance procedural and distributive justice nationally while allowing a degree of flexibility at local level. We believe the participative process we have outlined will help to achieve this. The current policy-review process, in which discussion of the Green Paper on Energy will lead to an energy-strategy White Paper—and the update of the National Spatial Strategy in 2015—provides a timely opportunity to establish an energy-transition strategy as the framework for Irish energy policy.

To support this process and the necessary policy framework, we set out six recommendations as follows.

i. The policy framework underpinning engagement should include an energy-transition process that is intentional, participative and problem-solving;

ii. Tailored policies, supports and structures should be developed to: (1) support local authorities, particularly to develop enhanced community engagement in their forward-planning process; and (2) enable communities, through a Community Energy Strategy, to contribute to the energy-transition process.

iii. Participatory processes of community engagement should be required for all wind-energy developments, such as the Renewable-Energy Community Engagement process outlined here;

iv. The substantive agenda around which engagement will occur should be shaped with communities and include a range of renewable-energy and energy-efficiency possibilities, as well as local value-sharing mechanisms (from community benefit to community ownership);

v. Renewable-energy intermediary actors should be certified and resourced to enable and facilitate the energy transition at a local level but also help to achieve community settlements; and

vi. A key central-level agency (such as SEAI) should be tasked to provide a learning network to which locally negotiated plans and settlements would be linked.

Chapter 1
From Challenge to Opportunity

1.1 A Sea Change in Social Support

Ireland faces an extraordinary challenge over the coming years to move its energy system from one primarily based on fossil fuel to one dominated instead by renewable energies. There is potential for wind energy to play a central role in Ireland's transition to a low-carbon economy by 2050. With 180 wind farms currently in operation, with 2080MW of installed capacity from over 1,300 turbines, wind energy in Ireland has developed considerably over the last twenty years.[3] In the coming years and decades, onshore wind may be increasingly supplemented with offshore wind, biomass and ocean energy. However, a steep road lies ahead to achieve the profound transformation of the energy system required.

Irish people have generally been supportive of the growth of wind energy and of electricity infrastructure, with positive national attitudes to wind energy, and a steady pace of wind farm development since 1992. However, there is now a more critical public mood, as evidenced by concern about the scale, location and type of development, and increased public debate in relation to wind energy and grid infrastructure. We consider that this signals something of a sea change in social support for wind energy and related infrastructure.

There are risks and potential costs in not addressing this shift in attitude to wind energy. Four potential costs are outlined here. First, there is a cost to developers in projects that are delayed or stalled through public opposition. Second, there would also be a national cost to the exchequer as wind energy, along with other renewable energies, has resulted in considerable savings through reduced expenditure on energy imports, estimated at over €250m in 2012 (Clancy & Gaffney, 2014). One report estimates the considerable likely additional GDP, tax revenue and jobs through wind energy if development is sufficient to meet Ireland's 2020 targets.[4] Third, a further risk and cost relates to CO_2 emissions. A recent study has calculated that wind-energy generation resulted in savings of 2.3Mt CO_2 emissions on the island of Ireland in 2012 (Clancy & Gaffney, 2014). Finally, there is a fundamental risk to the energy-transition project. Without public support, it will

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3 Irish Wind Energy Association (2014) http://www.iwea.com/iweapolicydocuments

4 This report commissioned by IWEA estimates that investment in wind for domestic use to meet our 2020 renewable energy targets will lead to GDP being higher by an annual average of €350 million in the period to 2020; employment would be higher by an annual average of 1150 jobs in the period to 2020. (Pöyry Energy Consulting & Cambridge Econometrics, 2014)

not be possible to lower our emissions, shift to low-carbon practices and achieve the energy security and savings that are necessary.Third, a further risk and cost relates to CO_2 emissions. A recent study has calculated that wind-energy generation resulted in savings of 2.3Mt CO_2 emissions on the island of Ireland in 2012 (Clancy & Gaffney, 2014). Finally, there is a fundamental risk to the energy-transition project. Without public support, it will not be possible to lower our emissions, shift to low-carbon practices and achieve the energy security and savings that are necessary.

We consider it is timely to reflect on current practices and policies and develop strategies that may help foster community engagement and social support. Other countries face similar challenges. Even countries with a long track record in wind, such as Denmark, have experienced periods of opposition and contestation. Indeed, the leading renewable-energy countries are distinguished by the way they respond to these societal challenges. We believe that the social dimension of wind-energy development, including enhanced local engagement, is increasingly essential for sustained wind-energy implementation in Ireland as elsewhere (Walsh, 2010: 278).

As part of its work on climate change, the NESC Secretariat emphasised the key role that our energy system must play in reducing carbon emissions and we placed it as the cornerstone of any future strategy; how it is produced and consumed will provide the basis for our future hopes of creating a healthier, greener and prosperous Ireland. One aspect of that work outlined how behavioural and societal change is central to the ways in which low-carbon practices, including energy use, become positive habits. The climate-change work concluded that the transition to a carbon-neutral economy and society must engage actors at all levels and in all sectors, through a governance system that animates, learns from and pushes networks of firms, public organisations and communities to ever-greater decarbonisation (NESC, 2013a). Behind that emphasis on engagement and a governance system focused on learning and ever-more ambitious targets, lay several core ideas. One was that climate-change policy must now balance the dominant emphasis on 'how much' carbon-emissions reductions to aim for along with greater exploration of 'how to' achieve profound decarbonisation. Another was that climate-change policy cannot rely solely on top-down targets and timetables, but must engage the interest and creativity of the actors that determine how energy is generated and used—firms, households, public bodies and communities. This report applies that approach to the area of wind energy.

This current work on energy is also shaped by NESC's sustainability remit,[5] which includes a focus on how greater integration of environmental policy with economic and social policy can be achieved. This perspective brings into focus the importance of the consumption of energy as well as its production; the need to balance

[5] The Department of the Environment, Community and Local Government provides NESC with resources to assist it in integrating a sustainable development perspective into its work and undertaking new analysis of this aspect of public policy.

economic value with other values such as social justice and environmental protection.

In that context, the Council has sought to examine how social support for the transformation of Irish energy, and wind in particular, can be better understood and achieved**.** In 2013, it commissioned SLR Consulting (SLR) to examine the challenge of community engagement and social acceptance in Ireland and in three other jurisdictions. The two SLR reports are published alongside this Council report and outlined briefly below. The report draws on that research and wider consultation with stakeholders[6] to examine how social support might be furthered in the development of renewable energies in Ireland.

Given the potential for wind energy to play a central role in Ireland's transition to a low-carbon economy by 2050, this report is a positive initiative from a climate perspective. Community engagement and social support for wind energy is a hugely important factor in Ireland's transition to a competitive, low-carbon economy in 2050.

1.2 Commissioned Research

SLR Consulting was asked by NESC to undertake research on approaches to achieving social acceptance of wind energy and related infrastructure.[7] The work focused on two key areas—an international comparison and the national context.

- **International Comparison of Contexts and Practices:** In order to identify the distinctive flavour and context of the Irish energy transition, it was compared to that in Germany, Denmark and Scotland. It focused on wind energy and social acceptance and included a review of the literature, policy contexts and interviews with a range of experts, practitioners and policy advisors.

- **National and Local Context and Practices:** The study documented Irish processes and practices for achieving community engagement and acceptance of wind and grid projects. It asked how key elements might work more effectively to support projects. The study includes five case studies that vary geographically, in scale, level of community engagement and in type of ownership (Table 1.1).

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6 On 28 February 2014 an expert stakeholder workshop was convened by NESC. The event was well attended with stakeholders, including representatives from statutory agencies, departments, academics, community organisations, planning, local authorities, energy co-operatives and others.

7 The research was carried out between August 2013 and February 2014. The SLR team included two consultants based in Scotland and Dublin, Jean Welstead and Nick O'Neill respectively, with the involvement of two academics, Professor Geraint Ellis and Professor Patrick Devine-Wright. An Advisory Group was established to assist the project. Its members are: Bob Hanna (DCENR), Matt Kennedy (SEAI), Paul Kenny (Tipperary Energy Agency), Pat Downes (Bord na Móna) and Professor Anna Davies (TCD/NESC Council). NESC is extremely grateful to this group for their expertise and time.

Two reports were produced, and are available at www.nesc.ie:

Wind Energy: International Practices to Support Community Engagement and Acceptance and;

Wind Energy: The Challenge of Community Engagement and Social Acceptance in Ireland.

Table 1.1: National Case Studies

Wind Farm	Regional Location	Reason for selection
Case Study No. 1 Templederry	Tipperary	100-per-cent community-owned and commissioned wind farm (2012), the first of its kind successfully developed in Ireland, with high levels of community engagement.
Case Study No. 2 Oweninny	North-west County Mayo	100-per-cent ownership by a joint venture of two semi-state energy bodies (ESB and Bord na Móna), currently engaged in an extensive community engagement process for a commercial-scale wind farm on cutaway bog in Mayo.
Case Study No. 3 Private developer	Kerry/ Galway	100-per-cent ownership by a privately Irish-owned, commercial developer, with a portfolio of successfully commissioned wind projects.
Case Study No. 4 Meitheal na Gaoithe	Range of projects in South East	A process of wind-energy development that results in 100-per-cent ownership by a 'community of interest' (landowners) with a moderate degree of local community engagement.
Case Study No. 5 Connemara wind energy	Range of projects in Connemara Gaeltacht	An area that initially accepted locally owned small projects, but which is now experiencing changing attitudes linked to the cumulative impact of externally developed large projects, within a populated zone, close to Galway city.

While the focus of this work is on wind energy and its related infrastructure, it should be placed within a wider energy-policy context at both national and international level, which is set out in Appendix 1. The following section briefly outlines key aspects of the current Green Paper on Energy Policy.

1.3 Green Paper on Energy Policy in Ireland

The current Green Paper provides an opportunity for a critical national reflection and debate on the future of energy policy in Ireland, and the role that community engagement and social acceptance might play. It outlines the many challenges Ireland faces in setting future energy policy if it is to realise the potential 'to be a low-carbon, inclusive, competitive and secure energy society' (DCENR, 2014a). The Green Paper puts as its first priority the need to empower citizens in the energy transformation. It states that 'a new way is required, one that places the citizen at the heart of the planning and decision-making process, and ensures that public and private actors effectively communicate the risks and benefits associated with energy projects in both a local and national context' (*ibid.*: 41). Some of the questions it poses relate strongly to community engagement (See Table 1.2).

Table 1.2: Selected Questions from the Green Paper on Energy Policy

- **How can we encourage citizens to be part of our transition to future energy paths and the policy-making process that goes with it? Given the scale of changes needed, what are the right mechanisms to engage citizens?**
- **What formal and informal mechanisms could be used to enhance citizen engagement with regulatory and policy decisions and how should they be structured?**
- **How can we raise awareness of the scale of the energy challenges facing us and the ways that citizens can be part of collective solutions?**
- **How could the permitting and licensing processes for major energy-infrastructure projects provide for greater collaboration and engagement with community stakeholders?**
- **How can we exploit Ireland's sustainable-energy strengths to realise job creation and economic growth opportunities?**

Source: DCENR, 2014a.

It is the hope of the Council that this report and the consultants' reports will help provide answers to some of these questions and make a valuable contribution to the debate.

Chapter 2
Key Components of Social Support

2.1 Understanding Social Support

In national and international accounts of the success and failure of renewable-energy projects, key insights on the role of social support, social acceptance and community engagement have been documented.[8] Before we turn to the components we consider significant, this chapter outlines some of the key issues.

There are various ways that social support or social acceptance can be understood and analysed, several of which are used by SLR in its consultancy studies for NESC. We recognise the limits of 'social acceptance' as a term (given its passive connotation), but acknowledge it is widely used in academic and policy debates. It is generally used to refer to the degree to which societal actors accept and promote the idea of renewable energy and related infrastructure. We prefer the term 'social support' as it connotes a more active participation and engagement in the process of wind-energy development.

In examining the research on social acceptance, SLR identifies several concepts and approaches. One key approach is the distinction between wide *socio-economic* acceptance, *market* acceptance and *community* acceptance (Wustenhagen *et al.*, 2007) (all of which are seen as necessary for social acceptance). Each of these elements interacts in a dynamic way over time. In focusing on community acceptance, another influential approach (adopted in the SLR work) is to consider the need for procedural justice (trust and fairness), distributive justice (of costs and benefits) and place-related effects. We believe that each of these classifications and analytical approaches has value.

In broad terms, the issue of social supports is multi-layered: successful community engagement is embedded in the process by which projects are developed; the levels of consultation and participation; the provision of information; and, in some instances, to the perceived and actual ownership of projects. How host communities view the decision-making process, their experience of how past decisions are made and the level of trust they have in key agents, are all important in relation to social support (Huber & Horbaty, 2012: 228).

The insights surrounding building social support for wind-energy projects are likely to be broadly similar for grid developments, including community engagement and

[8] See for example (Devine-Wright, 2010: 55-70); (Huber & Horbaty, 2012: 228); (Cowell, *et al.*, 2012)

the key role of a participative process. However, there will be issues that are particular to pylons, as distinct from wind turbines, given their larger scale and the debate on risks of exposure to electromagnetic fields (SCENIHR, 2007). The focus of SLR's work and of this Council report is where broad insights and practices can be highlighted that may have application to both types.

2.2 Three Components of Social Support

There are three components that we consider significant parts of an effective approach to social support.

i. An overarching energy transition that facilitates and guides society-wide efforts to transform energy systems;

ii. An effective and inclusive process of public participation that helps to shape and share local value; and

iii. Enabling organisations, and, in particular, intermediary actors, which support the kind of problem-solving and entrepreneurialism necessary to initiate renewable-energy developments.

The research for this project confirms the relevance of these. However, in the light of the analysis and the challenges facing the overall energy transition, our central argument is about *the need to connect the three components*. In particular, we argue that the approach to each has to be informed by the other two, reflecting both the general characteristics of renewable energy and the specifics of each locality. For example, the overarching national energy policy will influence participation in hard-edged ways such as the terms on which renewable energy can be sold into the grid. In turn, the wider energy-transition process will be shaped and guided by the results of local efforts to generate energy or to use it more efficiently. In addition, the approach to participation and sharing of value at local level must be supportive of the developmental role played by key actors. This role involves initiating renewable-energy plans and projects, exploring new possibilities, helping local actors to formulate, express and adapt their interests, and adjusting proposals in light of complex contextual factors and the evolving engagement of the various players.

A key policy challenge is to find ways to balance government's role in mandating a certain degree of procedural and distributive justice, and allowing a degree of flexibility at local level. The final chapter of this report examines this central but challenging issue—the form of national policy and regulation to ensure the appropriate degree of participation and value-sharing, while also allowing local actors flexibility to determine the precise approach and outcomes.

Before expanding on this, Chapter 3, 4, and 5 examine the three component parts of an effective approach to social support, starting with the Energy Transition.

Chapter 3
Energy Transition

3.1 Ireland's Renewable-Energy Ambitions[9]

A major transition in energy systems is underway across Europe and other parts of the world. While many countries have ambitious renewable-energy plans, others cleave to conventional technologies—coal, gas and nuclear power. It is important to state that Ireland belongs in the former progressive camp: it has seen a rapid increase in renewable energy over the past decade and has an ambitious goal of meeting 40 per cent of its electricity from renewable-energy sources (mainly wind) by 2020. At present, electricity represents around one-fifth of Ireland's total energy consumption. The high target adopted by Ireland for renewable electricity and wind is based on the judgement that wind is the most cost-effective renewable option available, and on a study of the grid's ability to use wind-generated electricity in the period to 2020.

As such, Ireland has embraced renewable energy, in particular wind, and energy efficiency, as the central planks in its strategy to decarbonise its energy system. A defining feature of successful energy transition in other countries, such as Germany and Denmark, is an energy-transition process that creates space to discuss and balance economic, social, environmental and technical considerations. The key elements of this are its intention to deliver a fundamental transformation of the energy system, and a commitment to a participative and problem-solving process.

This chapter argues that now is an opportune time to reflect on Ireland's achievement to date and to develop a more comprehensive, intentional and holistic energy-transition process. This is a key finding in the SLR research.

3.2 An Energy Transition is Underway

For the past century the electricity used in homes and industry has been produced in more or less the same way. Electricity was generated in power stations and distributed to customers at the end of a long line, until recently usually by state-owned monopolies, and generally using fossil fuels (coal or gas), nuclear power or hydroelectricity. Transport is even more dependent on fossil fuels: petrol, diesel and kerosene fuel the vast majority of the European transport. This system has been

[9] In this chapter, we draw from analysis conducted by Thomas Legge for NESC.

fraying at the edges for at least a decade, attacked on several fronts at once. EU and national government policies to privatise and then liberalise electricity markets have created more choice for consumers and more uncertainty for big energy companies, which can no longer plan around a state-guaranteed 40-year time horizon (the length of time it takes to make some kinds of power stations profitable). Policies to tackle climate change have led to the introduction of renewable-energy technologies like wind and solar power. These have been added to a grid that was not built to cope with electricity from small-scale, intermittent generators in places where the wind blows, but not necessarily where most people live. Technological innovations are making renewable energy cheaper and are also providing new control for people over their energy use, through smart meters and smart devices that can optimise power consumption.

Across the world there is evidence that countries are trying to take control of their energy destiny:

- The German Government decided, following the accident at Japan's Fukushima nuclear power plant in 2011, to shut down all of its nuclear energy generation by 2020. It did so while also committing to moving its entire electricity system to one powered by renewable energy by 2050.

- Denmark's stated policy goal is independence from coal, oil, and gas by 2050, which, in turn, will result in Denmark maintaining a secure stable supply of affordable energy and helping to limit global climate change.

- The Scottish Government target is for renewable sources to generate the equivalent of 100 per cent of Scotland's gross annual electricity consumption by 2020 (50 per cent by 2015).

The research by SLR and others suggests that a defining feature of the German and Danish experience is that social support for renewable energies is enhanced when social, economic, environmental and technological elements are part of a shared narrative and policy direction.

The German *Energiewende* (energy transition) is the most cited example. This addresses the need for a long-term integrated energy pathway to 2050. It places renewable energy and onshore wind as the cornerstone to supply, and seeks to accelerate the move away from nuclear power. It is cited frequently because of how it sets out a vision for Germany that crosses policy and departmental boundaries but is also participative in its development and scope. It is seen as a broad democratisation of energy in which the focus is on the process of the transition—and means of participation, community engagement and decentralisation of energy—as much as on energy itself. The Danes have also developed a consensual approach to underpin their energy transition, with considerable stakeholder engagement.

It is important to highlight that, as renewable energy comes to occupy an increasingly large part of the electricity system, problems will arise. This is true in

Germany, Denmark and Scotland—and also in Ireland. The key issue is how those problems are addressed. For example, in Denmark problems arose in 2008 when a decision was taken to concentrate wind turbines in specific locations—as it was recognised that planning practice up to that point meant that turbines had no discernible pattern and were, in effect, everywhere. In response, large utility companies began to negotiate deals directly with turbine owners and to shut down wind production in some areas and relocate it to larger wind farms. This took place with little or no consultation and created strong ill-feeling towards wind energy in Denmark. However, in response the Danish government requested local municipalities to develop processes that ensure participation with wider stakeholders. Under the Promotion of Renewable Energy Act (2008), the Danish Government standardised public participation in wind-energy development and put forward a decommissioning scheme for existing wind turbines. New policy instruments were introduced, which offer benefits to the local community, and support project development and management by local people to help generate local economic benefits (Olsen, 2013). These instruments include:

- a fund to support the financing of preliminary investigation by local wind turbine owners' associations or groups;
- a mandatory auctioning of a minimum of 20 per cent of the shares in a wind turbine over 25m high to neighbours living within a 4.5km limit;
- a loss of value scheme to compensate property owners where value had been impacted; and
- a fund to enhance local scenic and recreational values.

3.3 Three Elements of the Energy-Transition Process

The German and Danish experience suggest that a transition process can be designed to offer local communities a measure of control over their economic future and which, in turn, offers a country as a whole the opportunity to play a leading role in an economic project of pan-European significance.

At national level, an energy-transition process seems to have three overlapping features:

- Intentional;
- Participatory; and
- Problem-solving.

These three features are key to successful energy transitions and the Council proposes them as significant for building social support in Ireland.

Box 3.1: German *Energiewende*: Intentional, Participative and Problem-Solving

Intentional: **The energy transition in Germany does not refer simply to the decision to phase out nuclear power, nor is it just an incremental continuation of several decades of policies of liberalization and technological innovation. It is, instead, the deliberate and costly replacement of a familiar but outdated system with a wholly new one that has never before been implemented on such a scale, one based mainly on renewable energy while remaining a major manufacturing economy.**

Participative: The *Energiewende* is a national debate and a reasonably popular policy. There is a broad political consensus behind the German energy transition because so many people are themselves directly engaged in it, as discerning consumers or as investors or owners of the power system. It is a kind of democratisation of energy—a move away from a system dominated by a few large companies controlling the market in an oligopoly (if not a monopoly). Over half of Germany's renewable-energy projects are owned by individuals and farmers. This has generated over €80bn of investment in a way that has distributed the benefits from the revenue widely while also providing competition with the incumbent power companies, which have already lost 20 per cent of their market share to citizen-owned energy projects.[10]

Problem-Solving: The process is strongly influenced by bottom-up processes and local experimentation. A local community in the Black Forest region, Schönau, provides an illustration. In 1990, KWR's 20-year contract to provide a small town of 2,500 people with electricity was up for renewal. After a long financial and legal battle, a locally formed co-operative, with 650 members, bought the grid from KWR (the money raised through the sale of shares in the co-operative as well as direct donations). They later formed a company called EWS and introduced Germany's first feed-in tariffs, providing suppliers of solar energy up to six times more than conventional generators. It now finances new fossil-fuel-free power generation plants all over Germany—around 1,200 to date—mostly in small-scale wind and rooftop solar projects. As such, the problem-solving that happened in Schönau became a model for much of what has happened in Germany

Box 3.1 describes the German *Energiewende* in these terms. The intentional feature of the energy transition is a very deliberate strategy to replace existing systems with new technologies. This is an enormous challenge—in technical, financial and societal terms—which could, if not successful, pose major problems for Germany and its industrial base. It is not simply the product of series of technical amendments to its Renewable-Energy Sources Act (EEG) that accompany the 2010 energy concept, and its revision following the Fukushima accident in 2011. It is also the result of a national discussion built on several decades of transformation from

[10] http://www.renewableenergyworld.com/rea/blog/post/2013/10/3-reasons-germans-are-going-renewable-at-all-costs.

the bottom-up, and strong engagement of German citizens with energy project (as discerning consumers, investors or owners). In the *Energiewende*, participation is viewed as a positive and necessary force in bringing about transformation. The energy transition has also been shaped strongly by the intention to accommodate and further support what thousands of communities were already doing. As discussed in Box 3.1, local experiments have been used as a basis for moulding national policy.

However, while Ireland is in the progressive camp in terms of its development of renewable energies, it differs from countries like Germany in an important respect. It has not yet had an inclusive national process to steer the development of its energy system and to engage widely with citizens. Even though 80 per cent of the Irish public reportedly support wind power,[11] the public discourse reveals a growing opposition to wind-energy projects in some parts of the country and to the high-voltage transmission lines and pylons that support the growth of the sector. This makes the future for Ireland's energy system less certain. It seems that real efforts must be made to think about how to generate participation with the ability to influence decision-making. Chapter 4 focuses on the process of participation and how this might be enhanced.

3.4 Taking Time to Design the Process

Ireland's energy system is already in transition as, in many respects, Ireland is one of the leading nations in the development and use of renewable energy, particularly in the penetration of wind. However, there are a number of reasons why it is timely to take stock and to reflect on the transition process.

First, international experience suggests that social acceptance of renewable energies is enhanced when social, economic, environmental and technological elements are part of a shared narrative and policy direction. There is, therefore, a need to engage Irish people across society in a discussion about energy, including energy requirements and energy-consumption behaviours. This discussion needs, as Motherway argues, to include how we use energy; where we get it from; how we move it around; and how to minimise costs and maximise benefits (Motherway, 2014). One useful concept to consider is that of a 'just transition', which sets out a framework for a fair and sustainable shift to a low-carbon economy (Rosemberg, 2010).

Second, energy transition faces challenges, particularly around social acceptance of large-scale projects and infrastructure, but challenges also seem likely to arise in other areas. These include the role of regulation and minimum standards of participation, and possible levels and means of funding. Innovation and discovery on these and other issues is required if momentum and progress to date is to be

[11] IPSOS MRBI Poll Results INFOGRAPHIC 2013 http://www.iwea.com/windenergyfacts.

built upon. Now seems to be an opportune time to find more ways to engage people in discovery and innovation. Without this type of problem-solving engagement and participation, it seems likely that the energy transition will fall short of its ambition to move Ireland towards a near-carbon-neutral energy system.

Third, Ireland needs to make very significant and hard-headed decisions—such as the future of Moneypoint—that will have major bearing on its energy transition. In Germany, major decisions of this nature are shaped by public opinion but, as noted, the German public is more engaged in energy. A more engaged and informed Irish public could, as it has in Germany, have a dramatic impact on decisions of this nature.

Fourth, the Government is embarking on an energy-policy review process. This is a key moment in the policy system for reflecting on the future of the Irish energy system. The Green Paper on Energy and subsequent White Paper development will involve lengthy consultation processes. The Green Paper process involves a request for written submissions as well as thematically focused stakeholder workshops. However, it is not clear if conventional processes will be sufficient in relation to consensus-building at national, regional and local levels, seen as central to an effective energy-transition process. Such consensus-building would require widespread and active outreach and engagement with public authorities, wind industry and environmental and community organisations, as well as the wider public. If this is the case, it seems important to consider what is needed in institutional terms to develop such a process.

Fifth, it is understandable and correct that policy has been dominated by economic recovery over the past five years. However, as the economy begins to improve there is a strong case for establishing renewable energy as one dominant policy priority, not least for the potential for job creation, energy security and environmental imperatives. The transformation of our energy system will have profound fiscal, economic, competitive, social and environmental consequences and opportunities for Ireland. It is an area where Ireland is endowed with considerable national resources such as wind, onshore and offshore and other renewables and, as such, gives us a natural advantage.

A defining feature of successful energy transition in other countries, such as Germany and Denmark, is an energy-transition process that creates space to discuss and balance economic, social, environmental and technical considerations. Ireland has convened public debate on key policy issues before (See Table A1), but much can also be learned from how others, such as the Canadian province of Nova Scotia, have developed deliberative participative methods (See Box A2). At a more local level, cases like Templederry Wind Farm in Ireland (Box 5.2) and Samsø in Denmark (Box 5.1) demonstrate elements of a transition in action.

3.5 Learning from Energy-Transition Projects across Europe

The transformation of an energy system is enormously complex—in technical, financial and social terms—and how it will unfold is uncertain. An interesting feature of renewable energy is that despite the complexity and some uncertainties, in Ireland a whole range of actors are making significant progress. At a national level, the Department of Communications, Energy and Natural Resources (DCENR) and other government departments have worked to set, and ensure that Ireland can meet ambitious renewable-energy targets; and the work of Sustainable Energy Authority of Ireland (SEAI) has been central to this, in providing advice to government, delivering programmes including guidance for local authorities and engaging with stakeholders. Some local authorities, in particular, through their work in developing renewable-energy strategies, have been key actors. Other actors include the Irish Wind Energy Association, whose 200-plus members are involved in more than 85 per cent of the renewable-energy projects required to deliver 2020 targets.[12]

In addition, the case studies compiled by SLR provide valuable evidence of local communities that have made very significant progress (Templederry Wind Farm); of large-scale projects in which local authorities have carved out a developmental role (Mayo); and of a range of intermediaries (such as Tipperary Energy Agency), which are also playing critical roles.

However, real tensions are emerging. Nationally and locally, opposition is more evident in relation to specific projects, notably the wind-energy project that had been proposed in the midlands, and in relation to the grid. The case studies carried out by SLR also found some limited evidence of localised opposition; for example the Galway case encountered some resistance at the early stage of the project.

The key is how to think about this opposition. It can be seen as something outside of the energy transformation that needs to be reduced, or as something that can be brought inside the process and used to enhance it. The latter approach characterised many of the case studies: the Templederry Wind Farm project began with an open discussion within the community about how to respond to growing unemployment: renewable energy emerged as one option and, within this, wind was the favoured approach. The narrowing of options also drew on advice and technical input from experts such as the Tipperary Energy Agency. The result was a project that encountered very little opposition. In this sense, the energy-transition process seems to be crucial, in particular for the degree to which it actually empowers people in the decision-making process.

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12 IWEA Submission to NESC, March 2014.

In Ireland, the development of a national strategy on wind has happened in a more incremental way and, importantly, without a national discussion of comparable scale. As a result, although Ireland uses many of the same policies (such as feed-in tariffs) that have driven the widespread deployment of renewable energy elsewhere, it has not yet created a comprehensive enabling environment to allow the practices most likely to generate widespread social acceptance of renewable energy. A national discussion informed by international best practice about how to design an energy strategy in line with society's goals would be a valuable—perhaps indispensible—contribution to the further development of the renewable-energy sector in Ireland. The next chapter examines the participatory process in relation to wind energy and how it can shape and share local value.

Chapter 4
Participation and Value-Sharing

4.1 Introduction

The process of public participation and community engagement is extremely important in shaping the success or failure of wind-energy projects. This is a significant conclusion of the SLR research and our discussion with stakeholders. This chapter considers the generic qualities of effective participative processes and some specific qualities needed to generate support for renewable-energy projects, most specifically wind. It also argues that the process must be capable of sharing value with local stakeholders in a just manner. These latter characteristics result in intermediary actors having a very important role in the participative process, providing expert input and problem-solving. These are discussed in Chapter 5.

4.2 Qualities of Public Participation

Public participation provides an important means of strengthening the democratic process and building social capital and social cohesion. It is generally categorised according to the extent of involvement—from education and information provision through to extended involvement.[13]

To be effective, participation must have a number of generic qualities: be fair and genuine; include early engagement and be open and transparent.

- **Fair and genuine**: The process must be fair and genuine, which means that there is potential for the participant's voice to have an impact on the final decision (Carpini *et al.*, 2004). To be genuine, the people who take part must feel that it was productive for them and that the outcome was not determined in advance.

  The Danish experience (Box 4.1) shows that the mapping of appropriate sites for wind at county level with strong public participation helps to start community engagement on locations before specific projects come along. The example from Nova Scotia also demonstrates how public consultation can contribute effectively to policy development where the direction has not yet been determined (See Box A2).

[13] See (Wilcox, 1994) four categories of participation methods: education and information provision; information feedback; involvement and consultation; and extended involvement.

Box 4.1: Public Participation in Wind-Energy Projects in Denmark

The development of wind power in Denmark has been characterised by strong public involvement. Although other countries (e.g. Germany) have now adopted a similar approach, Denmark was an early adopter (since 1994) of obliging local municipalities to allocate zones for wind power development. Only 10 per cent of municipalities refused to follow the directive. This also meant that municipalities have been obliged to involve counties (regional authorities), local non-governmental organisations and utilities early in the planning phase (Toke *et al.*, 2008: 1135).

Compared to the UK and Ireland, the planning process is more regulated and guidance is thought to be potentially complex. An interviewee noted that there are complicated rules to follow and there can be very subtle dynamics in any specific area. However, the process has been greatly assisted by the Danish Government establishing the intermediary body, the Wind Turbine Task Force.

Danish law contains several relevant strategies: up front mapping by the municipalities that indicates suitable areas for wind-turbine development means decisions are made with regulators and residents, before developers are involved; funds support financing of the analysis and planning for wind turbines by local wind-turbine owners' associations (in which a majority of members are residents of the municipality where the association's wind turbines are planned or located); subsidies are given to communities with wind turbines; local citizens (living within 2.8 miles = 4.5 km) have an option to purchase wind-turbine shares; and nearby property owners are compensated for any loss of property value due to the wind turbines.

Source: SLR (2014).

- **Early engagement:** Early, sustained and reciprocal interactions are seen as central to effective participation; this is evident in a large literature (Jones & Eiser, 2010), and in the EPA review of the Strategic Environmental Assessment process (EPA, 2012: 21). The Templederry Wind Farm (Box 5.2) provides an example of early active engagement in advance of the project design and at every stage of the development;

- **Open and transparent**: This quality is central to building the trust that research shows is key to overcoming conflicts of interests (Dorfman *et al.*, 2012). In contrast, when the process is closed, meaning that local people do not have or feel they have a say, social support is often dramatically reduced. This was evident in the experimental Danish wind park at Østerild, discussed in the SLR (SLR, 2014b).

In thinking about these processes, it is possible to draw on design principles so that there is more transparency about the objective and likely outcome of any public participation. For example, Fung (Fung, 2003) emphasises the role of designing

appropriate participative methods for particular purpose. He argues the process should reflect analysis and choices around key questions, such as the following five:

- The purpose that might be educational, informative or problem-solving;
- The scope of deliberation and the method utilised, its timing and iteration;
- The stakes involved in participating (issues can be deeply felt);
- The level of empowerment for participants; and
- The monitoring to be adopted.

These qualities and principles are important in the design of any participative process. The next section examines which additional and particular process-elements might be suited to renewable energy and wind.

4.3 Particular Processes Suited to Renewable Energy and Wind

Renewable energy and wind have a number of characteristics that suggest that the process of participation needs some additional qualities.

- **Ability to bring expertise together**: Renewable energy and wind is a highly technical and complex area with projects requiring knowledge of energy, engineering, finance, environmental impact and indeed community and social relations. This suggests that for projects to proceed, the participative process must be capable of bringing together a wide array of expertise (Adams *et al.*, 2011), including local knowledge. The latter is seen as important in ensuring that solutions are developed that are relevant to the community (DECLG, 2014). A core challenge is the ability to build mutual understanding, which is likely to require education and skills, and capacity-building within communities.[14]

- **Facilitate exploration**: The problem-solving and exploratory aspect of community engagement is significant as future renewable-energy projects, including wind, play a wider, important role in Ireland's energy transformation. There is a need for a participative process to find ways to explore possibilities as technologies improve and reduce in cost, and as societies' attitudes change.

[14] People's Energy Charter http://energycharter.wordpress.com/2014/05/12/communications-with-dcenr-with-the-launch-of-the-green-paper-on-energy-policy-in-ireland/.

- **Execute possibilities**: In tandem with exploring ideas, there is a need to ensure that issues can be resolved and that possibilities are progressed. The participative process needs to have a problem-solving dimension.

These characteristics point to intermediary actors, with adequate resources, having a very important role in the participative processes, providing expert input and in problem-solving (examined further in Chapter 5).

4.4 A Process that can Share Value with Local Stakeholders

The increase in wind-energy development in Ireland in recent years has been credited with helping to reduce the costs of importing fossil fuels. Rural communities have played a significant role through their support of such projects. However, some are now questioning this support, and, while broadly supportive of meeting national renewable-energy targets, it is understandable that communities now expect to see more of the potential value situated in their locality. This is confirmed by research that shows how a community perceives the flow of costs and benefits of wind-energy projects can be a determinant of community acceptance (Ellis, 2012).

The economic-value creation potential for wind energy is significant in terms of jobs and services, income and compensation for land owners, and rates for local authorities. Building local value is also tied to supporting rural (and wider regional) development and local employment. In relation to rates, wind-energy generated €11.5m in local authority rates in 2012 (IWEA, 2013: 5). It can also result in income for communities in the form of community benefits, shares or dividends. Indirect benefits from a wind project can be significant. One developer, SEE, has calculated the value of the supply chain from its project in Slieve Kirk in Northern Ireland.[15] However, taking a developmental approach, any investment should also improve the economic, social and environmental resilience of the surrounding area (Cowell *et al.*, 2012). For example, there is potential value added to communities in social, environmental and symbolic ways through community involvement in energy production, civic engagement, capacity-building and eco-tourism. The Templederry Wind Farm has been symbolic of a community-led initiative and that potential for other communities.

The ability to share this local value is one of the key means of building social support.[16] It is also mutually reinforcing; with renewed awareness of wind-energy

[15] http://sse.com/newsandviews/allarticles/2013/11/slieve-kirk-wind-park-our-supply-chain/.

[16] Place-based communities are the key unit in relation to local value, particularly in relation to wind energy, which is physically located. Boundary-setting would be up to the communities themselves to determine. However, there is also potential for communities of interest (such as environmental NGOs or coastal communities) to have a role and these should not be excluded from either participative processes or discussions of local value.

projects and related infrastructure, more direct community involvement and sharing in the local value provides a strong incentive for communities to engage positively in the development of future projects (SEAI, 2009: 25). It also likely to lead to greater focus on the importance and gain associated with more energy-efficient practices and efforts to reduce fuel poverty (Cowell *et al.*, 2012: 25) and contribute to the creation of sustainable energy communities.[17] In addition, close community engagement and involvement is likely to bring local knowledge, expertise and practical supports to projects and contribute to their potential future success and value.

However, while the rationale for sharing local value is strong, the practice has not been widespread in Ireland beyond community-benefit schemes. The ability of communities to identify and decide upon the appropriate mechanism of value-sharing is critical in determining whether equitable outcomes are achieved and for the sustained support for wind-energy projects.

The remainder of this section describes the main mechanisms for sharing local value that are used in Ireland and internationally.

4.4.1 Mechanisms to Share Local Value

Across Europe, there is a widening spectrum of mechanisms by which communities share in the value of wind-energy projects with developers. Four broad types of mechanisms are outlined here.

- **Community Benefit**: This was the main mechanism used in recent years, in some, but not all, Irish projects. These are voluntary agreements (supported by industrial protocols) for delivering funds to communities from wind projects on an annual basis for a specified period. This practice is supported by government policy in principle, and work is underway on developing guidelines in DCENR and DECLG. An example is Mountainlodge Community Fund, which is a community-benefit scheme in Cavan linked to a wind-energy project developed by ESB and Gaeltech Energy. The fund (approximately €20–30k per annum for 3–4 years) is administered by The Community Foundation for Ireland.[18]

There are debates and issues arising from the use of community benefit such as the appropriate level, how it should be allocated, and to what purpose. For some communities, it represents a modest income source for charitable or community-related services and supports; for others, it adds limited value to the local community. The Irish Farmers' Association proposes the use of community funds by wind-project developers and suggests it should be in the region of 1 per cent of the annual revenue generated by the project or €2,500 per megawatt, whichever is the

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17 http://www.seai.ie/SEC/SEC_Programme/.

18 http://www.foundation.ie/our-grants/mountainlodge-community-fund.

greater (IFA, 2013). While protecting communities from project risk, community-benefit schemes usually involve limited community influence or control over project development, and are unlikely to lead to increased engagement in the wider energy development of the local area.

- **Equity Involvement**: A second suite of mechanisms, used in other countries, allow local residents and citizens to share in the local value, and, in some cases, the risks of wind-energy developments. Equity share is a type of distributed ownership with citizens purchasing or being allocated shares in wind-energy projects. Access to shares can be restricted to local purchasing such as the Danish Equity Scheme or open more generally to citizens as in the German model. The Danish Equity Scheme, requires developers to offer those living close to sites (within 4.5km) with turbines over 25m an opportunity to purchase up to 20-per-cent shares, so that those most likely to bear the impacts of a scheme will have the option to benefit financially. Under the scheme, 20 per cent of every project has to be offered to local communities to buy shares in. This type of purchase opportunity for communities has been proposed in the UK.[19] In addition, new funding streams, such as crowd-funding, are providing communities with opportunities to develop projects themselves. For example, in the Netherlands, a crowd-funding initiative recently saw 1,700 households purchase €1.3m-worth of shares in a wind turbine in just thirteen hours.

While such equity-share schemes are usually developer-led, others are 100-per-cent community-owned, such as Drumlin Wind-Energy Co-operative in Northern Ireland (see Box 4.2). An Energy4All co-operative (a UK co-operative intermediary), it aims to use future income, raised through equity-share offers, to support local environmental and energy conservation initiatives. In Scotland, Islay Energy Community Benefit Society has raised close to half a million pounds to fund the Islay Community Wind Project through its 2014 share offer.[20]

- **Energy Co-operatives**: Community-led wind projects run by energy co-operatives and community organisations mean local members have a significant, direct, financial stake in the project beyond land-lease payments and tax revenue. They usually take all or most of the risk, control and responsibility for the project that require local commitment and time.[21] These projects can be considered as part of a community energy movement, which includes citizen and local ownership and participation in renewable-energy generation, distribution and energy efficiency (FOE, 2014). In Ireland, the Aran Islands Renewable Energy Limited is a

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19 A new UK Infrastructure Bill includes the 'community electricity right' for community groups and individuals to buy a stake in a renewable-electricity generation facility. http://www.publications.parliament.uk/pa/bills/lbill/2014-2015/0002/15002.pdf.

20 http://islayenergycbs.com/.

21 The Fermanagh Trust in Northern Ireland has put forward a series of recommendations to promote community energy there including: setting out a clear vision for community energy; embedding community energy within policy; incentivising community energy; facilitating grid connection; a supportive financial framework and the creation of 'local energy plans' (The Fermanagh Trust, 2012). Also see, The Fermanagh Trust (2014).

non profit co-operative that aims to be self-sufficient in clean, locally owned energy (See Box 4.3).

Box 4.2: Drumlin Wind-Energy Co-operative Limited Share Offer

Drumlin Wind-Energy Co-operative was established in 2012 for the purpose of constructing and operating wind turbines in Northern Ireland. It is an Energy4All co-operative, seeking to support local environmental and energy-conservation initiatives. The current share offer is to give people in NI, Ireland and the UK an opportunity to invest in renewable-energy generation and the minimum investment is £250. The share offer outlines the risks in investing as well as the likely return.[22] This is the second share offer; the first facilitated the building of four turbines, two of which are generating electricity and returns for members.

Box 4.3: Aran Islands Co-operative (Comharchumann Fuinnimh)

The Aran Islands have very high wind speeds 8.2 m/s as compared with an average across Europe of 4-5 m/s. Aran Islands Renewable Energy Limited (Comharchumann Fuinnimh Oileáin Arainn) is a non-profit community co-operative with 42 members across the three Aran islands, but open to all. Its role is help make the islands self-sufficient in clean, locally owned energy, and to support the development of commercial initiatives. It has five key aims focused on: energy production; energy distribution; a micro smart grid; business development; and a clean energy laboratory. The co-op set up a private company, Aran Islands Renewable Energy Ltd, which can help support its work.

They have a ten-year plan in place and the first steps have been to retrofit 500 homes with support from SEAI. They expect to have retrofitted 20 per cent of households by the end of 2014. A fifth of households also have solar thermal heating. There are ten electric cars in use. A wind turbine is planned as part of a partnership with a commercial venture

Documented as one of the SLR case studies is another co-operative organisation, Meitheal na Gaoithe (MnG), the Irish Wind Farmers' Association. This is a grassroots organisation representing rural communities, individuals and SMEs dedicated to promoting and harnessing wind energy (SLR, 2014a). The members tend to develop

[22] http://www.drumlin.coop/home.asp.

small-to-medium-scale projects, removed from residential areas, with advice and guidance from MnG. Currently, 30 of their members have operational wind farms, ranging from 1MW to 35MW, with most of these projects in the 5–10MW category.[23] There are different development models promoted by the organisation, but typically the landowners retain full ownership of the project.[24] MnG were early actors in the development of small wind projects in Ireland, and have highlighted the administrative, financial and planning challenges of this process since they began in 2000 (REP, 2003).

- Joint Ventures: A joint venture is where a commercial operator and community organisation work together to develop a scheme, and create a joint venture to own and manage the project (Shared Ownership Taskforce, 2014). There are different types of venture partnerships such as between local authorities and developers (e.g. Woking Council in the UK), or communities and developers. Collaborative agreements in these cases will result in separately owned wind turbines but still sharing the costs, finances, risk and work involved in developing the wind farm.

In Scotland, these ventures are increasing with the support of the Community and Renewable Energy Scheme (CARES) Loan fund, introduced by the Scottish Government in 2011, which expressly encourages joint ventures. One example is the Earlsburn wind farm, which includes an additional 'community turbine'. The developer paid the full initial cost of the additional turbine and the village will pay this back over the first 15 years of operation. The Fintry Development Trust was set up to manage the revenue, which is used to tackle fuel poverty in the village.[25] Such ventures offer communities genuine opportunities to increase and develop local value through wind energy. They also show that it is possible for communities and developers to work together to achieve an outcome that benefits all stakeholders (The Fermanagh Trust, 2014).

Irish communities have not been afforded the opportunities for energy development that communities elsewhere are being offered. The contrast with the rest of Europe is striking. An estimated minimum of 204MW of community and locally owned renewable-energy capacity was operational in Scotland, which is an increase of 39 per cent on June 2011 (Energy Savings Trust, 2013). In Denmark, there is a high level of citizen ownership of energy systems—2,000 out of 5,200 turbines are owned by local wind-turbine owners' associations (SLR, 2014b). In

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23 http://mnag.ie/.

24 One example is the 61MW Castledockrell wind farm near Bunclody, Co. Wexford, developed by two farming families. The windmills, installed at a cost of more than €5 million, were commissioned by German Enercon engineers in May 2012. Each 1,300-kilowatt tower is around 60m high, which will together generate enough power for e.g. 4,000 homes (SLR, 2014a).

25 See also Neilston Community Wind Farm (4 turbines, of which the community owns 49.9 per cent) http://www.neilstonwindfarm.org/.

Germany, as part of its energy transition, over half of renewable-energy projects are owned by individuals and farmers.[26]

Given Ireland's history of community-led organisations in other areas such as food production, the lack of community-energy groups is not due to a lack of community activity. It is likely that, with the appropriate supports, options to purchase equity or to set up energy co-operatives would be taken up. One particular barrier is the lack of 'seed-money' for communities to scope out potential options and provide a stepping stone to achieving commercial loans, if required. This is overcome in other countries through tailored supports. In Denmark under the Guarantee Scheme, Energinet.dk[27] provides a guarantee fund of DKK10m (€1,340,210) for local initiatives.

4.5 Current Participatory Practice

This section provides a broad overview of current practice in relation to participation but is not intended as an exhaustive list. It lists the main practices defined in EU and national legislation, guidelines and some bottom-up approaches.

EU Legislation and Policy[28]

- **Environmental Assessments:** Required under European legislation, these assess environmental considerations of significant plans or programmes of strategic significance (SEA); and their impact on Natura 2000 protected sites (AA); and proposed projects or developments (EIA); and monitor the protection of designated habitats (HDA). These are structured processes, and guidance is provided by the EPA and DECLG and others. The practice of consultation under these different assessment types varies locally but in general terms seems to be focused on information provision and the receipt of public submissions. In terms of Strategic Environmental Assessment (SEA), responsibility for which is with the EPA, a recent review indicated that public involvement tends to be limited, although SEA is sometimes used as a way of challenging the lack of environmental considerations in a plan (EPA, 2012: 21). The review signalled that effective methods and preferences for stakeholder engagement were noted as: public meetings and workshops; advertisements and contact with stakeholders; media, web and electronic displays of information; focus groups of interested parties; and a clear non-technical summary. While these assessments do require public engagement, it is not clear, if or how, they could be adapted for more exploratory or more deliberate participation.

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26 http://www.dw.de/survey-finds-germans-want-shift-to-renewables/a-17167037.

27 The Danish Energy Act (2004) stipulated the creation of Energinet.dk, an independent state owned public enterprise (SLR, 2014b).

28 Other legislation and policy which includes public consultation include the European Landscape Convention; Habitats Directive Assessment (HDA).

- **The Aarhus Convention:** The Convention deals with access to information, public participation and decision-making in relation to environmental matters. It is structured around three pillars: access to information; public participation in decision-making; and access to justice. Ireland ratified the Aarhus Convention in 2012 but the Convention has impacted on aspects of Irish law since its adoption by the EU in 2005. The Taskforce on Public Participation in Decision-Making, (2014) established by the United Nations Economic Commission for Europe, is developing practical guidance on how to improve the Aarhus Convention. It is focused on building capacity by which public authorities can enable and build upon public participation (See Appendix Box A4).

- The Council of Europe's Draft Charter on Shared Social Responsibility (2011) encourages member states to adopt new forms of public deliberation and new structures of governance.

National Legislation and Policy

- **Planning and Development Acts (including Section 28 Planning Guidelines):** [29] Planning legislation in Ireland is set out under the provisions of the Planning and Development Acts 2000–2010[30] and the Planning and Development Regulations 2001–2013. The Acts set out the primary legislation in relation to the planning system and the accompanying regulations provide an interpretation of the primary legislation. Planning law makes provision for the preparation of County Development Plans and regional planning guidelines and for the determination of planning applications for proposed development.

The Strategic Infrastructure Act (2006) is noteworthy in two respects. Firstly, for wind projects that involve more than 25 turbines or output greater than 50MW applications can be made directly to An Bord Pleanála. In addition, Section 37 of the Act makes provision for An Bord Pleanála, where it deems it appropriate, to require developers to build or finance local facilities and services that confer a substantial gain on the community.[31]

The General Scheme of a new Planning Development Bill is expected in 2014, which, although its main focus is to implement recommendations from the Mahon Tribunal, has scope to include some other planning amendments.

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[29] Section 28 states that the Minister may, at any time, issue guidelines to planning authorities regarding any of their functions, including how the planning authority has implemented the policies and objectives of the Minister.

[30] Planning and Development (Amendment) Act 2010. Revised and Updated to January 2014 by the Law Reform Commission.

[31] An Bord Pleanála (ABP) is the only planning authority that can impose such a condition on community gain and only in the case of Strategic Infrastructure projects. ABP only imposes such a condition on some SID projects and would take into consideration recommendations made in the report of the relevant county manager.

Guidelines

- **Wind Energy Development Guidelines (2006)**: These are issued by the Department of Environment, Community and Local Government and offer advice to planning authorities with regard the preparation of wind-energy strategies as part of development-plan preparation and also their consideration of applications for planning permission from wind-farm developers. The original 2006 guidelines include a focus on: advice for developers on best practice in the pre-application public consultation phase; meaningful and early consultation; free flow of information; and an opportunity to have an input into the planning and design of the scheme. The Guidelines were issued under Section 28 of the Planning and Development Act 2000, which requires both planning authorities and An Bord Pleanála to have regard to these guidelines in the performance of their functions. The issue of community acceptance is not explicitly considered.

  Proposed Revisions to the Wind-Energy Guidelines 2006 are currently being finalised by the Department of Environment, Community and Local Government. The draft revisions focus on the specific aspects of noise/ proximity and shadow flicker. In addition, work has commenced on updating the 2007 Development Management Guidelines. A draft for public consultation is intended to be published at end of 2014/early 2015.

- **Guidelines on Community Gain**: DCENR and DECLG are examining the issue of community gain as part of a Renewable Electricity Policy and Development Framework. This framework is expected to focus on potential projects of significant scale. The issue of appropriate benefits to local communities will also be addressed under the framework. Its preparation will involve three phases of public consultation. A Strategic Environmental Assessment will also be undertaken.[32]

- **SEAI's LARES Guidelines**: Many local authorities have produced, or are in the process of preparing, Local Area Renewable-Energy Strategies (LARES). SEAI has developed guidelines for local authorities on LARES, which are applied voluntarily. These aim to encourage integrated, plan-led approaches; facilitate consistency and rigour; encourage alignment of policy and market efforts; and be recognised as impartial. Consultation is included as part of each stage of the process but the extent is at the discretion of the local authority. As currently outlined, LARES can be developed during the broader County Development Plan process or conducted separately and then added to the Plan. Not all local authorities have them in place yet. Clare County Council's Wind-Energy Strategy (Box A3) provides a useful example.

- **IWEA Guidelines**: The Irish Wind Energy Association (IWEA), the main renewable-energy representative body in Ireland, provides best-practice

[32] Information supplied by DCENR (June, 2014).

principles (2012) as well as best-practice principles in community engagement (2013). IWEA emphasises that 'effective community engagement is a key factor in achieving social acceptance over the lifetime of a wind energy project. The dialogue undertaken by stakeholders during the development of onshore wind energy projects should be inclusive, transparent, accessible and accountable' (*ibid.:* 10). IWEA also has a broader educational role, including providing training and information for its members; providing information to schools[33] and delivering a Wind SkillNet programme.[34]

More Bottom-Up Approaches to Participation

- **With an Energy Focus:** Engagement and participation can often be driven by communities themselves. The impetus for this varies but can come from intermediaries (go-between organisations such as energy agencies and community and co-operative organisations), academics or individual members of the community. Communities may become engaged through GAA clubs, community-development projects, or through the formation of new structures, competitions and grant awards (such as SEAI's Sustainable Energy Communities Programme). A good example is the Aran Islands Energy Co-operative (See Box 4.3).

- **The People's Energy Charter:** a community-based organisation, outlines principles of participation to encourage comprehensive public participation in the development of Ireland's energy policy, plans and projects. These emphasise exploring new modes of engagement, learning from what works/doesn't work and seeking to build 'win win' outcomes.[35]

- **International:** The research carried out by SLR highlights a number of international examples in which municipalities have adopted a quite pro-active role. For example, in Denmark, Middelgrunden Offshore Wind Farm (40MW) was developed through co-operation between the municipality, an energy company and a number of private individuals.

- **Regional:** Finally, there are regional initiatives that provide a forum for public engagement on energy and other environmental issues, such as the Cork Environmental Forum, established since 1995. A further example is the development of Dundalk 2020 (See Box 4.4).

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33 See for example, the IWEA poster on wind energy for schools: http://www.iwea.com/contentfiles/WindPowerPosterVersion-%20Printed%20Final%2013112013.jpg.pdf.

34 Wind Skillnet is funded by member companies and The Training Networks Programme, an initiative of Skillnets Ltd, funded from the National Training Fund through the Department of Education and Skills: http://www.iwea.com/objectives.

35 Draft Principles of Participation: http://energycharter.wordpress.com/2014/05/12/communications-with-dcenr-with-the-launch-of-the-green-paper-on-energy-policy-in-ireland/.

Box 4.4: Dundalk 2020 Project

The Dundalk 2020 Project aimed to create the first sustainable energy community in Ireland that involved the creation of Sustainable Energy Zone (SEZ) over 4km^2. In doing this, a fully integrated approach across the community has been used. The area is partly powered by a commercial wind turbine, in place since 2005. Using a highly participative approach, it involves local authorities, agencies and professional organisations, as well as businesses and local community groups. Central to this approach is the use of clear, measurable targets and tracking; the creation of networks across the community and between businesses; and the sharing of resources and knowledge.

- **Beyond Energy**: Bottom-up approaches to community engagement are evident in Ireland in many other areas, from food co-operatives to community-development programmes and local partnerships. These have potential for renewable-energy development, for example, methodologies used in other areas of community planning, such as Community-Led Village Design Statements, (Harvey, 2012) could be useful in profiling communities.[36] There are some innovative examples in the UK, for example, web-based tool Dialogue by Design (Dialogue By Design, 2012), points to appropriate strategies and methods through a series of questions on the purpose of the engagement. Methods include citizens' panels, citizens' juries and other deliberative approaches.

- **Local Authorities:** Some local authorities are adopting more innovative participatory practices. The Working Group on Citizen Engagement and Local Government (DECLG, 2014) reports that traditional methods are being supplemented in the new local government structures by more innovative and targeted communications and consultations. The main proposal of the Working Group is the development of People's Participatory Networks (PPN) currently being piloted in counties Laois, Tipperary, Galway and in South Dublin. These will comprise representatives from local-community, social-inclusion and environment groups. The Working Group points to some interesting examples of best practice on public engagement, driven by new tools and practices. Some local authorities are experimenting with new forms of public participation to help design urban areas in line with user experience. For example, Dublin City Council uses the 'Your City, Your Voice' panel to monitor public opinion on local services and policy.

[36] see also (Ewing, 2003); (Cuff, 2001) (Acland, 2002).

4.6 Scope for Improvement

In Ireland, information provision and minimal consultation, as required under the planning process, seems unlikely to be sufficient to gain support for wind projects, now and into the future. A number of shifts contribute to this. First, public awareness has grown and there is the potential for more intense debate on new project proposals than before. Second, wind projects are increasing in scale, in many instances, and require constructive relationships with communities if they are to be successful. Third, the increasing anxiety of communities to enhance the economic, employment and social potential of cities, towns and villages, and their increasing appetite to be more sustainable, mean that routine or passive consultation and engagement processes are unlikely to be sufficient any longer.

Four responses to the challenge are now outlined.

The first response focuses on the role of local authorities and the planning system and how it might be revised. There is merit in this, as local authorities are likely to be critical in Ireland's energy transition. However, it seems necessary to also explore other means of ensuring that there is greater participation. Views differ on whether the focus of such revision should be on enhancing the process of local public participation or on stronger national guidelines on the pattern of renewable-energy development, and the balance between wind-energy development and other considerations, such as landscape. Another perspective is that, since the core planning process has an indispensible quasi-judicial function, there are limits to how it can be modified to include additional processes of public participation; in this view, better processes of early local participation and community engagement as a complement to the formal process of planning applications and rulings are required.

It is worth noting that the law makes provision for each local authority to prepare development plans or what is called 'forward planning', which involves mandatory consultation. These are part of a wider hierarchy of plans, including the Regional Guidelines, Local Area Plans and Strategic Development Zones, which constitute the forward-planning system. The county plans focus on urban development, housing, infrastructure and, following the 2006 Wind-Energy Guidelines, many have included wind-energy strategies that identify areas suitable for wind-energy development. However, the Heritage Council argues, the dominant focus of the Irish planning system as a whole seems to be on development management rather than forward planning. The result is that there is not enough emphasis on establishing a robust plan-led system to guide onshore wind (Harvey & Moloney, 2013).[37]

[37] This resonates with the observations on the overall nature and thrust of the Irish planning system. In its 2004 study on housing policy, NESC emphasised that the hierarchy of principles and guidelines, from national through regional to local, is a hierarchy in a weak sense, creating risks to the overall National Spatial Strategy and the pattern of housing and other development—risks that materialised in the subsequent decade with dreadful consequences (NESC, 2004).

Walsh's doctoral research in 2010 highlights an ambivalent local-planning authority approach to consultation and engagement on wind-energy development. For example, pre-planning consultation with the local planning authority was explicitly mentioned in the wind-energy policy or strategy of only five local authorities. Even in those cases where the local-authority planners had encouraged local consultations, the type of consultation was not stipulated. The research also found that organising and financing consultative processes appears to be largely at the behest of project promoters. The interviews with planners revealed that local opposition in itself will not result in refusal of planning permission for a wind-energy project, as the planning application is assessed on its merits against the county development plan, regional planning guidelines and any other relevant national policy.[38] Interviews undertaken as part of that research suggest that local concerns, outside of environmental considerations, are often considered insignificant.

A second response to the challenge of making the planning system more open to participation in decision-making is to invoke the Aarhus Convention. The Convention is, indeed, an important instrument with great potential to enhance the quality of environmental policy. But it is not immediately clear that, as applied to date (in Ireland or elsewhere), it will be sufficient to create the kind of participation and community engagement necessary to achieving an effective energy transition. The Convention is clearer on Pillar 1, access to information, and Pillar 3, access to justice, than on Pillar 2, public participation in decision-making. Yet in the area of renewable energy, and wind energy and grid infrastructure in particular, it is public participation in decision-making that is most important. Consequently, the suggestion that adherence to the Aarhus Convention will provide forms of participation and community engagement that will facilitate Ireland's energy transition needs to be accompanied by more concrete evidence or arguments about the forms and institutions of participation that might deliver this.[39]

A third means of ensuring participation in decision-making is to focus on bottom-up approaches. As discussed above, these can take various forms, but all by definition create genuine scope for people to influence decisions. However, this can be unsatisfactory in a different sense in that bottom-up participation may have limited real influence on key decisions and decision makers.

Fourthly, there are numerous guidelines that in various ways endeavour to connect plans with local projects. The first example is the LARES guidelines developed by SEAI, already outlined. LARES followed on from the 2006 Wind-Energy Guidelines that initiated the plan-led approach to wind-energy development. These strategies (and the guidelines) aim to ensure that each county develops a plan-led approach. A further set of guidelines are provided by IWEA for developers. These different

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38 In making a decision on any planning application, the local authority must have regard to all the matters as set out in Section 34 of the Planning and Development Act. Planners do not make decisions, these are the executive function of the local authority.

39 As part of local government reform, new participatory structures are currently being initiated (DECLG, 2014).

types of guidelines are important and there are specific ways in which they might be enhanced and improved. Indeed, as noted above, considerable work is underway in DECLG in updating and reviewing guidelines. In the UK, research suggests considerable variation in how guidelines are used, in particular the intensity of the engagement process, and the extent to which engagement takes place prior to formal planning process.[40] Research by SLR and Walsh's 2010 thesis indicates that there has also been significant variation in the nature of local consultation and engagement in Ireland (Walsh, 2010).

In other areas of policy, such as for people experiencing poverty and social exclusion, guidelines on public participation exist, which could possibly be used to enhance existing guidelines on wind and renewable energy as they contain practical steps and guidelines on effective public consultation (DSP, forthcoming). In addition, an international example points to more detailed guidance including step-by-step details on how to conduct effective consultation.

The Canadian Wind Energy Association's, *Best Practices for Community Engagement and Public Consultation* (Canadian Wind Energy Association, 2008) is comprehensive and signals a collaborative tone for its members. For example, it states that 'developers should not take for granted a community's acceptance of wind-energy development'. Open dialogue provides 'an important opportunity for members of the community to collaborate with the project proponent and, where appropriate, have their ideas incorporated' (*ibid.:* 5).

These four responses to the challenge of working out enhanced means of participation are not mutually exclusive and are likely, in different ways, to help address the challenge. However, a central argument in this report is that rather than choose one of these approaches, we need to devise an approach that contains elements of top-down planning and framing combined with the front-line dynamic of project development and the bottom-up generation of local legitimacy. This need is most evident in relation to value-sharing.

Local communities need a stronger role in shaping and sharing local value. They need to be able to identify resources and potential value, problem-solve and find solutions as to how value is owned, distributed and for what purpose it will be used. This process is integral to the future energy transition, so that renewable-energy options and low-carbon practices become meaningful and productive for communities. In this way, it is the community-engagement process where local value is both shaped and shared that emerges as the most critical step to building social support and Ireland's energy future. To do so, local communities will require supports and national policy measures and instruments will be required.

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[40] In England, compulsory pre-application engagement has been introduced for 'more significant onshore wind', which is for development involving more than two turbines or any turbine exceeding 15m in height. An evidence toolkit on engagement practices is being prepared, as are standards of engagement between developers and local communities (House of Commons Library, 2014).

The success of international wind projects, cited in the SLR research, is underpinned by a supportive policy framework and incentives and by enabling actors who can provide the necessary technical, financial and legal guidance. For example, in the UK there is a strong policy and institutional commitment to generating local-community benefits from wind-energy projects and it has established a Community Energy Strategy.[41] In Scotland, experience suggests that direct policy focus on community ownership, alongside appropriate intermediary supports, can increase the number of such projects considerably.

It is also important to emphasise that sharing local value is not just a matter of sharing the financial value of wind-energy projects with residents and their communities. Considering the vibrancy of community-energy projects across Europe, this narrow view would represent a missed opportunity. Narrow in two senses—first that local value is also social, cultural and symbolic. Second, that building local value has to be concerned with developing the community's economic and social potential as well as contributing to developing a local response to the energy transition. In relation to the first point, Danish experience and in particular the community-wide enterprises at Samsø, highlight the social and symbolic value in wind energy, to the extent that they have built a tourist industry around some of their offshore wind turbines.

The second point can be realised through placing the local area and community's economic and social development as a central objective of any community discussions on energy, rather than simply sharing income to residents. The non-profit basis for the Aran Islands Energy Co-operative is an example of how this can be achieved. Templederry Wind Farm provides another model that includes profit-sharing for individuals as well as a share for the community. Finally, energy efficiency and low-carbon consumption practices can be built into the fabric of the community's energy discussion and future actions, for example in directing any income to refitting homes, such as on the Aran Islands, or through achieving energy efficiencies and savings in tandem with using more renewable energies. This, of course, is related to communities' capacities to directly access the energy generated through local renewable-energy projects, which is not currently permitted without going through the grid. This issue of community energy and grid access is one that will need to be addressed if co-operatives such as the Aran Islands are to be encouraged.[42] [43]

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[41] The Department of Energy & Climate Change has stated that 'We expect that by 2015 it will be the norm for communities to be offered the opportunity of some level of ownership of new, commercially developed onshore renewables projects. We will review progress in 2015 and if this is limited, we will consider requiring all developers to offer the opportunity of a shared ownership element to communities.' (DECC, 2013).

[42] Grid access has been frequently cited as a key barrier to community ownership of wind-energy projects. Renewable Energy Partnership (REP) identified this in 2004 and included some potential criteria for consideration in prioritising grid access to community projects. (REP, 2003: 49).

[43] A significant issue to consider, beyond the scope of this work, is to examine the impacts of distributed energy on the electricity network and its management. There is potential for micro-generation projects to play a useful part in meeting Ireland's energy needs and in the 'power matching' as part of the future smart grid.

We argue in the final chapter that a policy response based on a broad energy-transition agenda and utilising a number of tools—requirements for engagement, enabling organisations and certification of intermediates and verification of settlements—offers a concrete means of working in a more genuinely participative way that can ensure that value is identified and shared in a fair, open and sustainable manner. Central to this policy response is the role of enabling intermediaries, which is explained in the next chapter before we develop this overall policy position further.

However, projects may go off-grid, as happens elsewhere in Europe, which can lead to energy self-sufficiency but can also have implications for the management of the electricity network (FOE, 2014); (MEGA, 2014).

Chapter 5
Enabling Actors in Wind Energy

5.1 Areas of Activity and Support

The third element central to achieving social support for renewable energy and wind is that of enabling organisations and actors. With the scale and cost of today's industrial turbines, developing a wind project is a significant undertaking, requiring considerable investment, and business and legal acumen. In Ireland, most of the projects developed to date are developer-led, with a mix of commercial and state-owned projects. There is a small number of community-led projects such as Templederry Wind Farm. The dynamics of these projects requires the same or even more entrepreneurial drive to see them through to successful completion.

International and national research highlights the key role that a range of organisations play in supporting the kind of problem-solving and entrepreneurialism necessary to initiate renewable-energy developments, engage the relevant stakeholders, establish technical and economic feasibility and generate local legitimacy.

This first section, (5.1), begins by describing some of the organisations and actors that support the development of renewable energy in Ireland and across Europe. It discusses three overarching areas of activity and support:

- Development and Initiation;
- Intermediation; and
- Local legitimacy.

Each of the sections includes international and national examples. These functions overlap as is reflected in the fact that many of the organisations could be used as examples in more than one category. In some cases this results in a tension, for example in the need to find a balance between judicial and developmental functions with local authorities.

This section, (5.1), closes by arguing that there is scope to improve the enabling services in Ireland. There is a distinctive entrepreneurial spirit behind wind-energy projects in Ireland and across Europe, and this, combined with tenacity and diligence, seems to describe the basic characteristics of private, public and community-led projects. The closing section argues for enabling intermediary actors that link dynamically between projects, and central planning is a key requirement for this.

5.2 Development and Initiation

A range of actors, including companies/developers, government departments, agencies and local authorities (in parts of their work), have important roles in the development and initiation of renewable-energy and wind projects.

As noted, most development of wind energy in Ireland has been led by companies that vary in scale and scope. The Irish Wind Energy Association (IWEA) includes over a hundred private and public companies among its 200-plus members, as well as academic and other organisations.[44] These companies provide services and infrastructure in areas such as engineering, ecology, transport and financial services, and include state-owned companies like ESB, Bord na Móna and Coillte and private companies such as SSE Renewables, Gaelectric, Element Power, Mainstream RE, Saorgus Energy and Tradewinds Energy. Many of these have international operations. As the main representative body of the wind industry, IWEA has developed guidelines on community engagement and has a training and educational role, as outlined earlier. There is little doubt that these organisations do, and must, play a central role in underpinning Ireland's energy transformation.

A central challenge discussed in the final chapter of this report is how to ensure that there is a creative synthesis between the expertise within this business sector and local communities—and that both are linked to a national process of benchmarking and learning. The remainder of this section, (5.2), notes the four main public-sector organisations with a strong developmental role and influence on renewable energy and wind:

- **DCENR**: The Department of Communications, Energy and Natural Resources and other government departments have worked to set and ensure that Ireland can meet ambitious renewable-energy targets;

- **DECLG***:* The Department of the Environment, Community and Local Government has played a key role in preparing Section 28 Guidelines to facilitate the development of wind energy and, at the same time, provide for proper planning and sustainable development;

- **SEAI**: The Sustainable Energy Authority of Ireland provides advice to Government. It also provides advice, information and guidance to energy suppliers and users. It adopts four modes: agency (e.g. delivering programmes), academy (e.g. training and raising standards), activator (e.g. engaging energy consumers) and authority (e.g. informing debates). SEAI also provides guidelines for local authorities to develop Local Authority Renewable-Energy Strategies (LARES), which includes engaging with stakeholders*;* and

[44] http://www.iwea.com/iweamembers.

- **Local authorities**: The role of local authorities is critical in Ireland's energy transition. They are central to the forward-planning process in which the future of renewable-energy production is considered across the counties through County Development Plans and in the LARES. Local authorities also have a critical role in relation to community engagement and participation.

We think of a developmental or forward-planning role as initiating renewable-energy plans and projects, exploring new possibilities, helping local actors to formulate, express and adapt their interests, and adapting proposals in the light of complex contextual factors and the evolving engagement of the various actors.

There is scope for these (and other) enabling actors to take more of a developmental role in relation to wind energy and other renewables. In relation to local authorities, research by Walsh (2010) suggests wide variation in the extent to which they adopt such a developmental role for wind energy and other renewables. However, some are very active. For example, South Tipperary and North Tipperary County Councils work with the Tipperary Energy Agency and the Tipperary Institute to develop community renewable-energy projects. This active role provided a supportive context for the development of the Templederry project, which was driven locally by community members and a renewable-energy intermediary. Similarly, Donegal County Council and the Letterkenny Institute of Technology are working with the Donegal Energy Agency (SEAI).[45]

In other countries, municipalities have adopted quite a pro-active role. For example, as previously mentioned, Denmark's Middelgrunden Offshore Wind Farm (40MW) was developed through co-operation between the municipality, an energy company and a number of private individuals. In addition, the Hilchenbach community wind farm in Germany is a five-turbine wind farm constructed in 2008, two-thirds of which is owned by local citizens with the municipality also owning shares.

5.3 Intermediation

In both the national and international research the role of expert enabling intermediaries emerged as a critical factor in determining the success and degree of social support for wind energy. In the research, intermediary actors offered a range of supports and services such as technical and financial support, facilitation and liaison, and negotiation and mediation, which we broadly label here as 'intermediation'. These actors are often seen as the trusted source of expertise and influential guide to best practice and means of building capacities in communities and developing a consistent service across locations.

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[45] https://www.seai.ie/uploadedfiles/FundedProgrammes/File9.pdf.

The services and supports are normally tailored to the needs of communities, local authorities, or other key actors. In most cases, the supports were more than guidance and acted as a very real stimulus for development. This section provides a number of examples drawing on the international and national research carried out by SLR:

- **Danish Wind Turbine Task Force:** This task force works with state and municipalities. It employs five people and is based in the Nature Agency within the Department of the Environment in Copenhagen. It is a small but agile task force that operates as a 'travelling team'. It does not work directly with communities. It helps around two-thirds of all municipalities every year. Its activities include the provision of information and advice (technical and planning) directly to municipalities; helps with the identification of suitable wind sites; provision of advice on running public meetings; and the research and piloting of different types of stakeholder engagement. It also provides a 'one stop shop' website.

- **Community Energy Scotland:** Scotland's national community energy charity provides practical help for communities on green-energy development and energy conservation.

- **CARES (Scotland):** The Community and Renewable-Energy Scheme is administered by Local Energy Scotland, a consortium made up of the Energy Saving Trust (EST), Changeworks, the Energy Agency, SCARF and the Wise Group. CARES provides free, impartial advice to communities, rural businesses and land managers, including support to access grant and loan-funding. It provides tailored support in terms of feasibility, financing, community equity, community benefit and project development through Local Energy Scotland partnerships dedicated to enabling community and local uptake of renewable-energy projects. It offers community grants and innovation and infrastructure funding, and also facilitates payment of community benefits. Its loans scheme has offered 42 projects funding of £4m, which will produce 56MW of renewable energy. A further £28.5m will be available over next three years. CARES is viewed by the OECD as an example of good practice (OECD, 2012).

- **Clearingstelle (Germany)[46]:** This organisation works with grid operators and operators running plants. Its role—defined by Section 57 of the Renewable Energy Sources Act—is to act as intermediary or facilitator between stakeholders. Its remit is to settle any disputes and issues of application arising under the Act with wider stakeholders. Its options include mediation, joint dispute resolution and arbitration. In addition, it provides general advice on how to apply the provisions of the Act and anticipates any problems.

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46 https://www.clearingstelle-eeg.de/english.

- **Process Facilitator:** In the Netherlands and Canada, a neutral intermediary or process facilitator has been developed to improve communication as well as arbitrate in wind-energy disputes (Huber & Horbaty, 2012).

  At national level in Ireland, some of SEAI's work does link national plans and local activity. For the most part it provides more guidance than active intermediation. The type of expert enabling intermediation evident in these international cases is more in evidence in local or regional organisations in Ireland. For example:

- **Local Energy Agencies:** In Ireland, there are now 14 local energy agencies, including the Northern Ireland Energy Association.[47] Energy agencies vary in scope and scale and in their level of engagement with local communities. The Tipperary Energy Agency (TEA) was established in 1998 by the Tipperary Local Authorities and the then Tipperary Institute as an independent not-for-profit limited company. TEA provides technical and financial support for communities/co-operatives wishing to develop wind farms. It also provides energy education and information to the general public. In the case of Templederry Wind Farm, it demonstrated the power of having a technically and financially capable support for communities/co-operatives to engage in of wind farming. Another example is Codema, the largest energy agency for the Dublin area.[48]

- **WDC:** The Western Development Commission is a statutory body set up in 1998 to promote social and economic development in the western region (Donegal, Leitrim, Sligo, Mayo, Roscommon, Galway and Clare). Its roles include developing projects in renewable energy, and providing loans. Killala Community Wind Farm Ltd was developed by a community group assisted by WDC.

- **Wexwind:** This company supports communities, in Wexford and surrounding areas, which are interested in wind-energy development. It does do through the provision of technical, legal and financial support and by generally promoting local engagement with an emphasis on community benefit.

5.4 Local Legitimacy

A strong characteristic of projects that enjoyed social support were organisations, groups or individuals which helped to enhance the degree to which a project is seen as legitimate and of value by local residents.

In the Danish example in Box 5.1, the community of Samsø established the legitimacy of the project incrementally. They won a competition that provided

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47 http://www.aiea.ie/home.

48 This has a wide-ranging role from energy advisor to local authorities, improving energy-efficiency practices in homes and businesses to project management of local, national and EU-funded sustainable energy projects.

expertise and allowed them to build a case for wind energy on the island. This allowed the community to demonstrate the energy and employment gains and to convince those who were initially not in favour.

Box 5.1: Danish Community-Led Project: Samsø

In 1997 Samsø's community of around 4,000 inhabitants, distributed between 22 villages, decided to enter a national competition to be one of five communities that would pilot a switch to 100-per-cent renewable energy using only commercially available technologies. The island won the competition, which brought technical expertise and subsidies to develop a master plan. Beginning in 1999, the islanders constructed 11 1MW wind turbines—at the cost of nearly €8.8m—with a view to making the island self-sufficient in electricity. They also constructed 2.3MW offshore wind turbines—at a cost of about €33.3m—to offset the greenhouse gas emissions from the island's cars and ferries.

Today, the island's entire electricity needs are met by 21 onshore wind turbines, microturbines and solar panels on individual houses, and a growing use of biomass (straw from wheat or rye) to fuel the district heating system. From being dependent on coal-based electricity that was imported into the island from the Jutland grid, Samsø now exports electricity to other parts of Denmark, and its offshore wind farms are a tourist attraction (Biello, 2010). Each of Samsø's wind turbines is owned by either a windmill co-operative, individual owners, local businesses or the Samsø municipality (Macabrey, 2009). As a result, one in ten residents owns shares in the wind turbines, so much of the revenue from the electricity that they generate is recycled straight back into the community, where it is put to further use.

Critical to the success of the scheme in Samsø is that it met multiple local objectives at once. The local community was initially skeptical about the plan, satisfied with the cheap electricity from the nearby coal-fired power stations. But following a programme of citizen engagement, community planning, and local planning, the island residents were able to identify the most appropriate way to contribute to the objective of 100-per-cent renewable energy. Another important factor that generated support was the urgent need for local jobs and the scheme was designed from the beginning to align with local interests. Energy efficiency was an important part of the island's carbon-free energy plan—insulation of houses and other measures reduced energy consumption by half—and the fact that so many people now produce their own electricity seems to have encouraged them to use it more sparingly, the better to export it.

Source: Adapted from analysis conducted by Thomas Legge for NESC.

In Ireland, the Aran Islands Energy Co-operative (Box 4.3) is open to those resident on the three islands and has established local legitimacy in terms of bringing energy-efficiency savings to residents, but also in collectively planning for the future needs of the islands. Another example, Templederry Wind Farm (Box 5.2), shows the importance of building capacity as a way of bringing some local legitimacy to a given project. In this case, an initial group of locals was armed with the results of research that identified socio-economic options for the area. This led to the

creation of a co-operative group, which subsequently evolved into a company that owned and managed the wind farm. Initial funding, though relatively small, was critical. While ownership of the wind farm remains with the group of initial local investors, the equity share for community use provides shared local value.

Box 5.2: Case Study—Templederry Wind Farm Limited

The Templederry project started in 1999, when a group of local people, mainly farmers, identified a specific niche that could be exploited for the benefit of the local community. The first step was a project that identified the socio-economic potential of the area and a local development plan. Through North Tipperary LEADER the group identified a range of opportunities, including wind, biomass and anaerobic digestion.

Consultative parish meetings were held, to present the strengths and opportunities of each option, but wind energy was chosen and a development co-operative was formed to advance the project. The co-operative approached the County Enterprise Board for funding to carry out a feasibility study. The TEA and the Tipperary Institute (now a campus of Limerick Institute of Technology) both helped significantly with technical advice for the feasibility study. The co-operative decided to develop a wind farm as a result, and to do this decided to move from a co-operative structure to form a limited company, Templederry Energy Resources Ltd (TER) as the development vehicle, with the co-op as a shareholder. TER now has thirty-one shareholders, with seven directors. Each member holds one share in the limited company, while the development co-op holds two shares.

In financing the project, in addition to community input, the project has received support from Tipperary LEADER and continual financial, technical and practical support from TEA. Templederry Co-op holds two shares for reinvestment of future revenues back into the local community. There will be no return for the first 5–6 years, but if the project is successful, it will generate €1.0 –€1.4m per annum for the local community. The overall level of acceptance of the project has been high, based on the low number of objections to the second planning application in 2007 (no objections were received in 2003).

Source: SLR (2014a).

Internationally, the role of co-operatives in the development of energy is important. In particular, Denmark's wind sector is well known for its development of onshore wind-farm projects that are co-operatively owned by farmers and local investors. As noted in Chapter 4, Ireland has a long history of co-operatives and community-led responses in sectors such as food production and water management in rural areas,[49] but to date not in energy.

[49] For example, there are over 5,000 group water schemes in Ireland, run as community-owned enterprises (Brady & Gray, 2001).

In trying to understand why this has yet to happen in in the area of Ireland's wind and renewable energy, Comhar identified a range of barriers. These include: a lack of policy focus and specific supports for community-led projects; access to finance; and grid connection and planning process (Comhar, 2011). For example, getting initial funds for scoping exercises can be a formidable challenge, whereas in Denmark a Guarantee Fund has been established to support preliminary investigations by local groups. One innovation is Mayo Community Futures, which is a programme[50] that assists communities to prepare Community Action Plans. It absorbs any costs arising and could provide a vehicle for communities to consider renewable-energy strategies and options. Another barrier is grid access, which can take five years or longer to achieve. Templederry Wind Farm in Tipperary is the only community energy project to enter the Irish market as a licensed energy supplier (FOE, 2014), whereas in Denmark, grid access can be secured in a matter of weeks (Society of Co-operative Studies in Ireland, 2014).

However, energy co-operatives are emerging. Community engagement is the central pillar to these organisations and requires local leadership and expert support. Important examples are:

- **Meithal na Gaoithe:** This is a national 'grassroots' co-operative organisation providing technical and financial guidance to landowner members as developers of wind farms on their own lands, within their own communities. The organisation's policy is to maximise local and community benefits of wind energy; play a positive role in the advancement of the technology; facilitate members' interests through education, lobbying, networking and advising members and public. It seeks to transfer lessons across localities (including workshops, and educational activity).

- **Energy Co-operatives Ireland:** This is a co-operative renewable-energy consultancy promoting community access to the benefits of renewable energy. It supports the development of co-operatives in communities interested in developing renewable-energy projects. As discussed in the SLR report, it has supported the Aran Islands Energy Co-operative. In addition, the Irish Co-operative Organisation Society (ICOS), a co-operative umbrella organisation that serves and promotes commercial co-operative businesses and enterprise across multiple sections of the Irish economy, offers support to communities seeking to establish energy co-operatives.

- **The Community Foundation For Ireland:** A registered charity that acts on behalf of donors and supports charities and community groups. Established in 2000, it has made grants on behalf of donors of over €14m, mostly in Ireland. It currently administers one community benefit fund in County Cavan, with others under development.

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[50] The programme is co-ordinated by the County Community Forum and is funded by Mayo County Council, LEADER and the VEC.

5.5 Key Lessons: Beyond Top-Down and Bottom-Up

In taking Ireland's energy transition to the next level, it is important to factor in a range of roles and capabilities associated with developmental, intermediation and local legitimation activities.

We distinguished earlier between two roles or functions: the developmental work of various actors and the judicial or quasi-judicial role of local authorities and An Bord Pleanála in their planning-control function. Our purpose was to support clear thinking about the challenge of local engagement and participation and, in particular, about the role of local authorities in the future of Ireland's energy transition.

The research evidence from Walsh (2010) and SLR suggests that in terms of developmental activity and public participation, Irish local authorities are less active than similar bodies in other countries. This may reflect the challenge of achieving a balance between a developmental role and an appropriate judicial process. Both local authorities and indeed An Bord Pleanála have significant quasi-judicial roles. One of our arguments is that in seeking to improve local public participation, the focus should not, in the main, be on changing the quasi-judicial process of planning and development control. No doubt, changes could be made in this area, and there may be wider reasons to seek them. But apart from the legislative complexity, this is not the best sphere in which to address the challenge of community engagement and social support for renewable energy. Even a modified formal planning control process, with more local participation and modified criteria, is unlikely to explore new possibilities and adaptation. It is likely to take the renewable-energy projects and interests of the various actors as given and transparent. Consequently, a focus on changing this aspect, as the key route to better community engagement, is always likely to overdo litigation, under-do mediation and be insufficiently problem-solving to address the overall renewable-energy and public-participation challenge. Maintaining the integrity and fairness of the judicial role is an element in building social support, but we believe that we should focus our attention elsewhere.

But when we turn to the forward planning, developmental and community development roles of local authorities, there is good reason to explore the increasing relevance of the local authorities. High-quality local authority renewable-energy strategies will be an important element in future years. Indeed, as noted earlier, there are several examples of Irish local authorities being key agents in the development of wind-energy projects. Consequently, the way these county-level renewable-energy strategies are formulated, and public participation in this process, is one of the significant issues to be addressed in taking Ireland's energy transition to the next level.

Given this, there could be a temptation to put most of the emphasis on the local-authority forward-planning role, encompassing not only county-level but also local-area renewable-energy plans. While these undoubtedly have a critical role, our analysis suggests that it would be a mistake to overdo the hierarchy of plans, running from national to regional and economic strategies through to county to

Local Area Plans. Although it sounds rational and consistent, it may not be realistic or effective. Such a top-down approach will not cut with the grain of wind-energy project development or feel the pulse of dynamic local community engagement. Over-reliance on fixed top-down plans will neither harness the forces that tend to drive renewable-energy projects nor engage with the resistance that can emerge in local communities. As well as thinking clearly about the difference between developmental and judicial roles, we should also distinguish top-down planning and bottom-up emergent approaches.

Our approach draws attention to the need for improved local-authority renewable-energy strategies and plans, but cautions against seeing this in top-down terms. Both international and Irish experience show the critical role of enabling intermediary actors, entrepreneurialism and ongoing local legitimation in progressing renewable-energy projects. But neither should this be seen as reliance on purely bottom-up initiative and action. In some countries, the bodies providing enabling functions at local level are, in fact, national agencies or task forces, while in Ireland they tend to be more localised. In many cases, local legitimation is helped by small levels of external funding that allow options to be explored and that can in turn form the basis of an 'energy contract' with local communities, often including energy generation and energy efficiency. The parties in the exploration and agreement of these possibilities can be individuals, co-operative groups, private companies and national-level agencies and actors.

Consequently, the initial policy challenge is to create a framework mandating parties to work out energy contracts or settlements that make sense in given localities, within the context of a National Energy Transition and county-level renewable-energy strategies. Problem-solving networks (drawn from national, intermediary and local spheres) that explore, test and scale-up ideas are likely to be integral to such a process. It will be necessary to accommodate considerable variation in the processes of both project development and public participation, including variation in the roles played by local authorities and other actors. We see this approach as neither 'top-down' nor 'bottom-up', but as combining elements of each in novel ways. We outline our proposed approach in the final chapter.

Chapter 6
Framing a National Response

6.1 Key Considerations

The Green Paper and White Paper process offers the Government and the Irish public an opportunity to fully engage in debate on Ireland's future energy policy. The consultation process provides an opportunity to seek societal engagement and consensus-building on the need for, and nature of, Ireland's energy transition. Ireland has previously convened public debate on significant policy issues in creative ways and such engagement is key to planning for Ireland's energy future. Successful engagement will shape the overall socio-political acceptance of renewable energy.

Important questions posed in the Green Paper on Energy have particular relevance to this work and were outlined in Chapter 1. One key idea is that citizens can play a more active role in both the generation and the use of energy (the energy citizen). Another is the need for greater public engagement with national policy, building support for an energy transition. We consider that the material and research presented in this report, and in the supporting research documents, can help place the energy citizen at the centre of a new energy policy. In making and articulating this national policy and framework, the 'how', the process of community engagement and public participation, is critical and just as important as the 'what', the proposed substantive future development of wind energy in Ireland.

But in addition to this, we know that national policy and regulation will influence local acceptance, engagement and value-sharing in more hard-edged ways; national rules and procedures can mandate that certain procedural, substantive and distributional approaches are adopted in designing, creating and running wind-energy projects at local level. These can range from national definition of the terms on which renewable energy can be sold into the grid, to mandatory requirements on the local planning process and approaches to community gain, involvement and equity.

In setting the national framework for local acceptance and engagement, government has to mandate a certain degree of procedural and distributive justice and, at the same time, allow a degree of flexibility at local level. Most of the national and international evidence suggests that somewhat different approaches to engagement and sharing of value will be feasible and appropriate in different localities. This reflects a range of factors, including the history of, and capacity for, effective community organisation as well as the nature of the wind projects being proposed.

This leads us to a key issue, the form of national policy and regulation that will mandate an appropriate degree of participation and value-sharing but also allow local actors to determine the precise approach and outcomes. Too much national regulation and direction is likely to impose approaches, both procedural and substantive, that cannot be made effective at local level. Too little national regulation might mean that certain approaches that are potentially effective, fair and innovative, could remain off the table in local discussion, negotiation and rulings.

Consequently, the central questions concern the ways in which national policy, regulation and public bodies can and should influence the exploration and development of renewable-energy opportunities at local level. Specifically:

- What process of local community engagement should be mandated and/or encouraged?

- What rules or incentives should be created on how the value generated in wind-energy projects should be shared between the various business, public, land-owning and community stakeholders?

- How should these processes be supported by national frameworks and public bodies?

At present, the answers to these questions tend to reflect the interests, perspectives and experiences of the different organisations involved in renewable-energy projects. Figure 6.1 outlines the two polar models.

Figure 6.1: Two Polar Models of Renewable-Energy Project

Community-based	Developer-led
A community organisation or co-operative is the protagonist or principal, designing a local renewable-energy plan with intermediary bodies & engaging as agents firms to provide particular services.	A private project promoter or developer is the protagonist or principal, designing the wind farm, steering it through the planning process and agreeing with some local group a form of community gain that is managed by a third party, such as a community organisation or independent foundation.

In one model, a large majority of the 180 existing wind-energy projects in Ireland can be described as developer-led (summarised in the right-hand box in Figure 6.1). In these, a private (and sometimes public) project promoter makes a contract with land owners and the grid regulator to establish a wind farm, and the degree of engagement with the local community varies. From this perspective, the task of building greater community acceptance and social support is to identify policies to encourage project promoters and developers to engage earlier and more fully with local communities, and to enter into more generous community-gain settlements. Indeed, the Irish Wind Energy Association (IWEA), has developed voluntary guidelines along these lines.

The alternative model (summarised in the left-hand box in Figure 6.1), is that of community-based or co-operative projects, which constitute a minority of renewable-energy projects in Ireland. These, such as in Templederry and the Aran Islands, have a number of appealing characteristics, but also vary considerably in the mechanisms for sharing local value. From this perspective, the task is to think of policy measures that might increase the probability and prevalence of community-based and co-operative wind-energy projects, given the barriers to such projects that currently exist.

We do not believe that the new policy can be based on the promotion of either approach on its own.

As regards the developer-led model, we doubt that merely strengthening guidelines on community engagement will be sufficient to promote greater engagement with local communities; even if it did, this may or may not be enough to assuage growing resistance. Furthermore, even were this approach to facilitate greater acceptance and, through that, the creation of many new wind farms and hence increased installed renewable-energy capacity, it is unlikely to fully explore the possibilities for

energy transition. It might under explore the synergies between renewable-energy *generation*, on the one hand, and *energy use*, efficiency and local grid control, on the other. It also might not fully grasp the wider range of local-value mechanisms that exist in other countries, such as equity share and joint ventures.

Equally, despite its attractive features, it does not seem feasible for national policy to enforce the community-based and co-operative model. But nor does it seem sufficient to simply encourage or incentivise it, given the real barriers that currently exist. Where such encouragement and incentives are not sufficient to call forth community-based and co-operative renewable-energy groups, we would be back to the standard developer-led model. Overall, such a policy is likely to favour islands of community-based and co-operative projects in a sea of mostly developer-led wind-farm initiatives and projects. The social support for such a pattern of development would remain in doubt.

Rather than settle for the duality of community-based versus developer-led projects, with the odds still probably favouring the latter, we suggest that national policy should shape a creative synthesis between the two. In other words, we believe that the nationally defined policies, rules of the game and public bodies should insert developmental, locally inclusive and energy-transition elements into the process in each locality. This synthesis is summarised in Figure 6.2.

With this suggestion we draw on other spheres of regulation—environmental protection, employment relations, EU product-standards regimes, participatory budgeting, health and safety, disability rights etc.—where the effect of regulation is to force the parties to engage with one another in a problem-solving or even experimentalist way. For the purposes of this discussion, the most relevant example is probably that of 'information-forcing' regulation involving what are known as regulatory penalty defaults. [51]

The question that arises then is: what precise provisions and measures in an Irish renewable-energy regime could have equivalent effects to those achieved in other spheres by regulatory penalty defaults? In other words, how can we transcend the dualism in Figure 6.1, to create a regime that allows favourable elements of both community-based and developer-led renewable-energy projects to be discovered at local level?

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[51] A regulatory penalty default is a default rule that imposes harsh terms, creating an incentive for the regulated party to voluntarily produce an acceptable alternative—in effect, to bargain around the otherwise applicable regulatory requirement. Karkkainen argues that 'A properly designed penalty default approach appears capable of imposing discipline, accountability, and transparency from above on locally flavoured, bottom-up, flexible new governance experimentation from below' (Karkkainen, 2006: 893).

Figure 6.2: Integrating Community-based and Developer-led Models

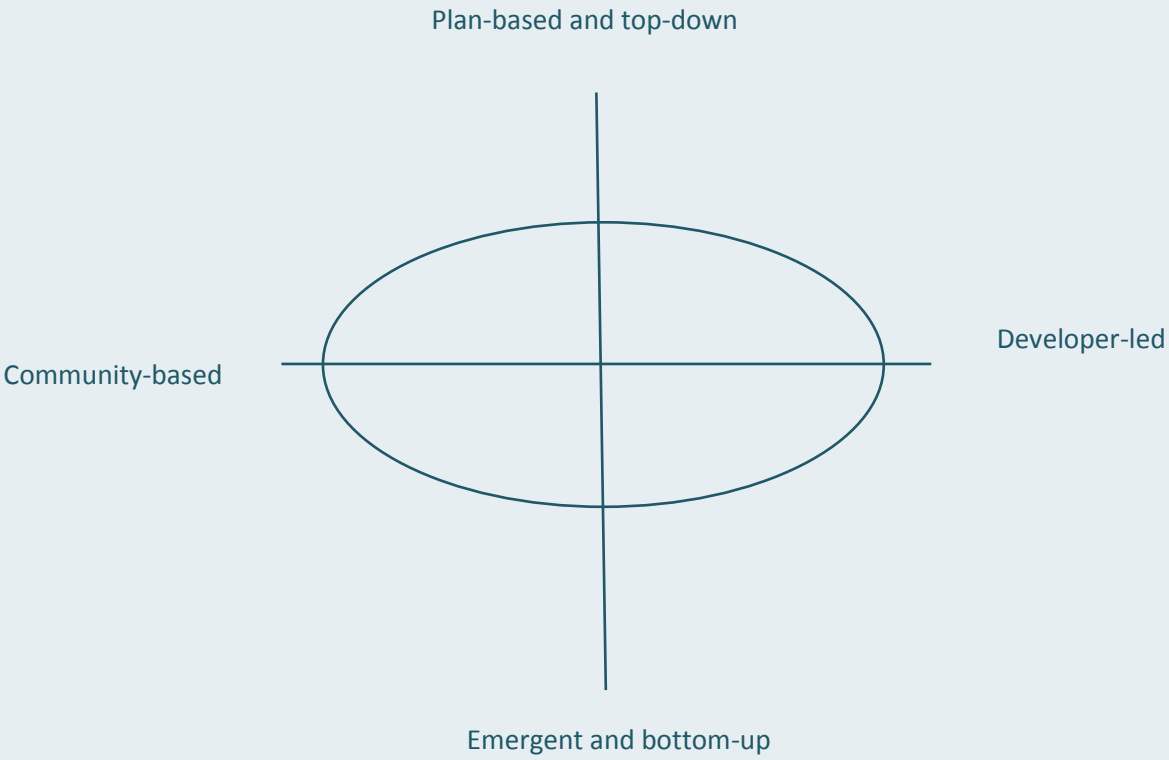
Required approaches to community engagement (with a focus on a tailored, deliberative participatory process and not on minimal consultation)

Could national policy and regulation create a framework for a creative synthesis of community-based and developer-led approaches? That is, could the required forms of local engagement not only facilitate the delivery of wind-energy projects, but also embed elements that engender a degree of local exploration of energy-transition possibilities?

The most common approaches to promoting local stakeholder engagement is to focus on either required *processes* of community engagement or on the kinds of *structures*, actors and entities involved. Some believe that they know, in advance, an *exact process* that should be followed, and perhaps made mandatory. Others argue that mandating an *exact structure* of local participation or representation will be sufficient to guarantee a desirable outcome. While process and structure are important, we are not convinced that focusing on them in this way will be sufficient in the case of renewable energy. Whatever about their strengths in other spheres, neither approach seems well suited to the particular characteristics of renewable-energy projects; these require a flexible and evolving combination of entrepreneurial project leadership and local legitimation.

We want to combine this argument with that outlined at the end of Chapter 5, concerning the need to go beyond top-down versus bottom-up. When we do this, it becomes clear that the approach we suggest is a synthesis in two senses, summarised in Figure 6.3. As noted in Chapter 5, we do not believe that a purely plan-based top-down approach will be sufficient, but we do not posit a bottom-up approach as the alternative. The regulatory, participative and exploratory approach we advocate is neither top-down nor bottom-up as these terms are conventionally understood. We also suggest that national policy should resist the duality of developer-led versus community-based renewable-energy projects. Each of these types exist and will figure in Ireland's energy transition. But national policy needs to create a framework that, in the first instance, opens possibilities at local level, assists exploration of those possibilities and brings the resulting settlement into a national process of benchmarking and learning.

Figure 6.3: A Developmental Synthesis of Exisitng Approaches



6.2 Tools for Renewable-Energy Community Engagement

To create a dynamic synthesis of this kind requires careful policy, regulatory and institutional design at national level. To begin, we suggest four key tools that we see as instrumental in achieving the kind of community engagement and project-development process.

From the innovative examples highlighted in the SLR research and in our consultations with stakeholders, we believe that it is possible to develop a community engagement process that incorporates some of the best elements of energy co-operative and community energy projects (such as the Aran Islands Co-operative), while at the same time instilling important elements of an nationally led energy-transition process. We present four workable tools to help convene and structure the process of discussion, exploration, agreement and execution. This combination of a required but flexible process of engagement with direct involvement and certification of intermediaries, and final verification of what we

call 'settlements', provides what we believe to be a positive way forward for wind-energy development.

The four tools are:

i. The *substantive agenda* around which engagement must occur;

ii. *Required processes of inclusive community engagement* that can both shape and share local value,

iii. The engagement and resourcing of enabling actors and certified *intermediary organisations* to bring expertise, facilitate exploration and support execution of renewable-energy possibilities in a local area; and

iv. Linking locally negotiated *agreed outcomes* such as plans and settlements to a key institution such as SEAI, in a way that validates local agreements as well as creating a process of benchmarking and learning.

Each of these will be outlined briefly in turn.

i. A Broad Substantive Agenda

While locally determined, the agenda for discussion should be informed by the need for progressive solutions in relation to Ireland's Energy-Transition Strategy. This means incorporating energy efficiency and renewable energies into the local discussion and exploration, and in the final outcome wherever possible. In addition, there would be a developmental approach to shaping and sharing local value, so that the community's overall economic and social development would be the key overarching objective. Through dialogue, a number of challenging questions will arise for each community as they reflect on what they require and can realise from wind-energy projects. They would be encouraged and incentivised to discover their own potential contribution to the energy transition through the development of their community's local value.[52]

ii. Processes of Community Engagement

At the instigation of key stakeholders, a Renewable-Energy Community Engagement (RECE) process would be convened. Communities can be the instigators of this process as can local authorities and developers. We envisage that such as RECE would be *a required (mandatory) process* for all developers at the earliest stage of scoping out projects in a particular community. The penalty default to incentivise participation would be a matter for the Commission for Energy Regulation, but could be tied into Renewable Energy Feed-In Tariff (REFIT) or grid access, for example.

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[52] In this Section we draw from analysis conducted by Thomas Legge for NESC.

The process would be participative and problem-solving in nature, so that all participants have a voice and opportunity to shape the discussion. The generic guidelines on public participation outlined in Section 4 would be applied, as well as drawing on principles such as those being drafted by the People's Energy Charter. Creative methodologies could also be utilised, examples of which can be found in the recent report to the DECLG on citizen engagement (DECLG, 2014).

While participation in this RECE process should be inclusive of key stakeholders, it would be up to local conveners to design the structure, process and invitation list to any discussions to make them manageable and productive. Developmental actors that could play a helpful role include the local authority, community-development organisations, members of a local energy co-operative and nearby communities.

iii. Enabling Intermediary Actors

The role of a certified intermediary body is critical in this process and it would bring these tools, supported by guidelines and protocols, to the discussion. Any such organisation could be selected to participate in the process, so long as it was certified. The range of functions outlined here is indicative only, but such actors could be resourced to facilitate proceedings, develop and initiate, intermediate and support local actors in securing the legitimacy of proposed renewable-energy projects. Existing and newly formed intermediary bodies would be certified by an appropriate agency such as SEAI to provide facilitation services, expert advice and mediation skills where necessary.[53]

iv. Inserting the Agreed Outcomes into a National Learning Process

The concrete practical objectives of a RECE process would be the focus for discussion and dependent on the particular context. It may be suitable to draw up a local-area energy plan, establish an energy co-operative or agree a settlement that includes an element of community benefit, equity share or joint venture. If a developer is a participant, a settlement or agreement would be sought that would include the appropriate local-value mechanism and process to be followed. If successfully concluded, any settlement would be registered with an appropriate body such as SEAI or CER.

As indicated earlier, the process envisaged has a significant bottom-up dimension—in terms of grounding the discussion in community interests, concerns and plans—but also has a strong national dimension. Through a required registration mechanism, a body with national oversight, such as SEAI, would hold copies of all settlements. A publically available database of these would be developed, to share information with all communities. This oversight body would have a facilitative role, administer an energy-learning network and provide a key support for enabling

[53] The Planning and Environmental Mediation Group within the Chartered Institute of Arbitrators has formed a panel of specialist mediators in the planning and environmental sectors, which could be a useful resource for such work.

actors in renewable energy. In supporting this network, the national body would provide metrics and insights on good practice to the departments and agencies driving the energy transition, as well as giving guidance and training to communities and intermediary bodies, as required.

National Policy Supports and Measures

As part of a National Energy-Transition Strategy and a process of the kind outlined above, a range of policy supports and measures would be required to encourage and promote low-carbon practices at national, regional and local levels. A Community Energy Strategy would include directed resources, incentives and measures for promoting community and co-operative energy schemes. Specific measures to address the barriers to community involvement would be important, such as:

- Providing priority grid access for community projects;
- Fair and secure tariffs for community projects;
- Support to develop local micro-generation possibilities;
- Seed-money for the RECE process, community energy plans; capacity-building;
- Resourcing certified intermediaries including existing organisations and potentially supporting a new support scheme, such as CARES;
- Tax incentives for local renewable-energy employment;
- Local energy-efficiency schemes and resources; and
- National targets for community and co-operative projects.

A Community Energy Strategy would provide clarity and policy direction for these measures. As well as specialised and tailored advice from intermediaries, the provision of national guidelines and toolkits for communities would also be important.[54]

New financial mechanisms for public investment in renewable energies could be developed, such as state-loan guarantees for determined value in community projects; increased credit-union support; and a national fund for public investment

[54] A toolkit with web resources, like the Scottish Community Renewable Energy Toolkit, would outline the main mechanisms for local value-sharing, the RECE process and the available supports to communities including funding and information sources. In Scotland this is augmented by VOiCE, an innovate IT-based tool.

in renewable energies such as a Wind-Energy Investment Trust. Partnerships with further and higher level institutions could provide further value.

There is a key role for local authorities in enhancing public participation in forward-planning functions and in particular for the development of LARES and Local Area Plans (LAPs). Innovative methods could be resourced and developed from existing good practice and shared across local authorities.

A Societal Project

The process and policy framework we have outlined is not achievable without support from state agencies and departments, public and private organisations, and communities and households. With a focus on delivering a National Energy Transition, the role of public deliberation and key networks will be vital. Particular supports will be required from existing and emerging community-based organisations. Energy co-operatives provide appropriate structures and peer support for communities to develop their own renewable-energy projects, as well as to share in the local value of developer-led projects. Supportive organisations such as ICOS, Energy Co-operatives Ireland, and IWEA would have an important role to play in this. SEAI has played an instrumental role in Ireland's success to date in building renewable-energy capacity and this could be strengthened to provide support for Ireland's energy transition.

Finally, while the scale and focus of grid and pylon development is different in many respects from wind-energy development, the tools outlined here and the processes for more effective community engagement are very relevant. It is also important to place community engagement on wind-related infrastructure development within an energy-transition process so that a participative and problem-solving approach can be taken.

NESC Recommendations

We believe it is *possible* to build social support with appropriate measures; we also believe it is *necessary* to enable continued development of wind-energy and energy infrastructure, and *beneficial* to Ireland's energy transition and society, given the job potential, social and environmental benefits of a low-carbon future.

We consider the three components identified at the start as critical to building social support for wind energy and related infrastructure: a National Energy Transition, strong local public participation, and the enabling of intermediary actors. The research for this project confirms the key relevance of these components and we have attempted to integrate them in a unique way for the Irish context. A National Energy-Transition process is required, which includes local participation and shared local value, with a key enabling role for expert intermediaries. The challenge for policy is to design a framework to balance procedural and distributive justice nationally while allowing a degree of flexibility at local level. We believe the participative process we have outlined will help to achieve this. The current policy-review process, in which discussion of the Green Paper on Energy will lead to an

energy-strategy White Paper, provides a timely opportunity to establish an energy-transition strategy as the framework for Irish energy policy.

To support this process and the necessary policy framework, we set out six recommendations. These are as follows:

Recommendations

1. The policy framework underpinning engagement should include an energy-transition process that is intentional, participative and problem-solving;

2. Tailored policies, supports and structures should be developed to: (i) support local authorities, particularly to develop enhanced community engagement in their forward-planning process and (ii) enable communities, through a Community Energy Strategy, to contribute to the energy-transition process.

3. Participatory processes of community engagement should be required for all wind-energy developments such as the Renewable-Energy Community Engagement process outlined here;

4. The substantive agenda around which engagement will occur should be shaped with communities and include a range of renewable-energy and energy-efficiency possibilities, as well as local value-sharing mechanisms (from community benefit to community ownership);

5. Renewable-energy intermediary actors should be certified and resourced to enable and facilitate the energy transition at a local level but also help to achieve community settlements; and

6. A key central-level agency (such as SEAI) should be tasked to provide a learning network, to which locally negotiated plans and settlements would be linked.

Appendix 1
Energy-Policy Context

Ireland has an EU commitment that 16 per cent of energy will come from renewable sources by 2020. Renewable electricity is to be the single-most significant contributor to this, with an objective that 40 per cent of electricity is to come from renewable sources by that date. In addition, there are targets of 12-per-cent renewable energy for heating and 10 per cent for transport. The ambitious 40-per-cent renewable electricity target is to be achieved mainly through the expansion of onshore wind. The high target adopted by Ireland for renewable electricity and wind is based on a judgement that wind is the most cost-effective renewable option available to Ireland at present, and on a study of the grid's ability to use wind-generated electricity in the period to 2020.

While wind has the potential to become the dominant component of Ireland's electricity system, the system cannot be based solely on wind but should be balanced by other energy sources. Questions that arise in this context include the role of other renewables, the role of gas in the transition phase, the potential of carbon capture and storage, whether there is a role for nuclear energy in Ireland and what are the implications of the Moneypoint power station reaching the end of its expected useful life within the next decade.

Major investment is required in Ireland's electricity grid to meet the demand from projected economic growth, and to support regional development and the expansion of wind. In addition to expanding the capacity of the grid, there is a need to invest in a smart grid. This includes integration of a high level of information and communication technology into the grid. This is required, among other things, to facilitate greater responsiveness of electricity consumption to a more variable electricity supply provided by wind. In addition to grid investment within Ireland, the transition to a low-carbon system requires a high level of investment in interconnection to other countries. An interconnected European system would facilitate the most effective use of Europe's renewable-energy resources. The more interconnected the system, the easier it is to balance the variability of renewable energy that arises in any given area. It also makes it possible to develop supply in those areas where costs are lowest. Complex incentive and regulatory issues arise in the development of an interconnected European grid and a single electricity market.

The transition to a low-carbon energy system requires changes beyond the use of low-carbon energy sources in the generation of electricity. At present, electricity represents around one-fifth of Ireland's total energy consumption. Energy-efficiency investments, such as retrofitting of buildings, offer some of the most cost-effective means of moving to a low-carbon system. Major challenges arise in the decarbonisation of energy use in heating, transport and industry. Energy needs in

these sectors can be partly met in a low-carbon way through electrification if electricity itself is decarbonised. Renewable energy in transport consists primarily of imported biofuels; there are serious concerns with regard to the social sustainability of using developing countries to supply biofuels to developed economies.

The development of Ireland's wind-energy resources can provide significant economic and environmental benefits. Ireland currently imports 85 per cent of its energy, one of the highest proportions in Europe, while expenditure on energy imports is €6.5bn. It has been estimated by SEAI (2014) that renewable-electricity generation resulted in an avoidance of between €250m and €280m in fossil-fuel imports in 2012.

The economic and environmental effects of achieving Ireland's 2020 wind-generation targets, and of further growth in wind to 2030 in line with projected growth in electricity demand, are examined in a report prepared by Pöyry consultants and Cambridge Econometrics for the IWEA. This report estimated that investment in wind for domestic use leads to GDP being higher by an annual average of €350m in the period to 2020 (€650m in the period 2021–2030). Employment is estimated to be higher by an annual average of 1,150 jobs in the period to 2020 and by 1,600 jobs in the period to 2021–2030. Cumulative tax revenue is projected to be €1.8bn higher over the period 2013 to 2030. These gains are measured relative to a scenario in which there is no additional investment in wind from 2013. The economic effects are projected to be considerably higher in a scenario in which there is development of wind-energy exports (Pöyry Energy Consulting & Cambridge Econometrics, 2014).

Wind has the potential to play a central role in Ireland's transition to a low-carbon economy in the long term. It is already contributing considerable savings in carbon emissions. New SEAI research has estimated that the use of wind in electricity generation resulted in savings of 2.3m tonnes of CO_2 in 2012 on the island of Ireland (Clancy & Gaffney, 2014). This estimate takes account of the fact that wind-generated electricity results in some loss of efficiency in fossil-fuel plants whose output has to be adjusted to accommodate the variability of wind.

Energy involves large long-term investment so there is a need at Irish and European level to develop the policy approach for the period beyond 2020. The European Commission has published proposals on climate and energy policy in the period to 2030.

The policy issues for the future of energy in Ireland are outlined in the recently published *Green Paper on Energy Policy in Ireland* (DCENR, 2014a). This points out that 'over the next decades, Ireland's economy will need to shift from one predominantly dependent on imported fossil fuels to a more indigenous, low-carbon economy based on renewable energy, energy efficiency and smart networks.' (*ibid*. : 8). The paper identifies six priority areas to be addressed in Irish energy policy: (1) empowering energy citizens; (2) markets and regulation; (3) planning and implementing essential energy infrastructure; (4) ensuring a balanced and secure energy mix; (5) putting the energy system on a sustainable pathway; and

(6) driving economic opportunity. The White Paper that follows will provide an important policy context for future renewable-energy development in Ireland.

The final heads of legislation for a climate-change bill were published in April 2014. This proposed legislation mandates the preparation of a national low-carbon roadmap for Ireland, incorporating sectoral roadmaps. The roadmap will set out how the transition to a low-carbon economy will be managed and achieved. There will be consultation on the low-carbon roadmap in the second half of 2014.

An earlier policy statement in 2012 underlined the need and urgency for new energy infrastructure in the national interest, as well as recognising that public acceptability of such infrastructure is a major challenge (DCENR, 2012). The statement emphasised the imperative for early and ongoing engagement and consultation with local communities and all stakeholders before entering planning.

DCENR is developing a renewable electricity policy and development framework that includes a focus on potential projects of significant scale, including large wind turbines. The framework will also address the issue of appropriate benefits to local communities. It is not expected to be completed until the end of 2015. Its preparation will involve three phases of public consultation as well as a Strategic Environmental Assessment.[55]

A further policy development was the publication of a plan, in February 2014, for the development of Ireland's offshore energy resources (DCENR, 2014b). Energy policy issues in the context of a transition to a low-carbon economy are discussed in background papers to the NESC Secretariat's final report on climate-change policy (NESC, 2013c, 2013b).

Finally, the European Union, and its member states, have also influenced the process of developing energy systems with its adoption of the Aarhus Convention.[56] This provides for the protection of the environment, but fundamentally acknowledges the right to public participation in environmental and planning decision-making, linked to government accountability. It focuses on the interaction between the public and the authorities and is a significant context within which to have a discussion on social engagement in energy transition in Ireland.

6.3 Current State of Wind and Grid Development

Strong progress has been made on the expansion of renewable-electricity generation in Ireland. The contribution of renewable energy to Ireland's electricity consumption increased from 5.0 per cent in 2000 to 19.6 per cent in 2012. This

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55 This is a continuation of the Renewable Energy Export Policy and Development Framework but with a focus on renewable electricity for both domestic and export markets.

56 The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters is the official name of the Aarhus Convention.

progress was primarily due to the growth of wind, which provided 78 per cent of renewable electricity in 2012; the other renewable electricity comes from hydro and bioenergy. The current total wind capacity is 2080MW generated from 180 wind farms in 26 counties from over 1,300 turbines.[57] A County Wind Map shows the distribution of wind farms nationally, with the highest wind-energy production in Cork, Donegal and Kerry.[58]

In recent years, social-acceptance issues have arisen in relation to electricity pylons and grid infrastructure. While Irish people have generally been supportive of such electricity infrastructure, there have been concerns in recent years over the scale, location and type of developments across Ireland as Eirgrid expands the transmission network. One of the aims of Eirgrid's plans to upgrade and extend the network is to accommodate wind (McDonald, 2014). Eirgrid has held consultations on the preferred route and has invited submissions from interested parties. Earlier this year, they announced a set of initiatives to address public concerns about some of the major Grid25 projects.[59] These include specific commitments to the review of underground and over-ground options; provide community gain funds for local residents;[60] and review of the consultation process with assistance from the Chartered Institute of Arbitrators. The overall review is expected to be completed mid 2014 and its findings will be published, including recommendations to improve future public engagement.[61] The Government has also instigated the independent review of two of the planned schemes.

It can take several years to secure a grid connection. Applications for grid connections are processed in groups known as 'gates'. The most recent group of grid offers was made under Gate 3 and were set at a level that should be sufficient to achieve the 40-per-cent renewable electricity target by 2020. Gate 3 is now closed to new applications. However, there is provision for connection of micro-generation (the small-scale generation of electricity) outside of the Gate 3 process.

Renewable electricity, including wind, is supported by the REFIT scheme. This provides a guaranteed price to the providers of renewable electricity; the price varies by technology. The cost of REFIT is covered by the public service obligation (PSO) levy paid by electricity consumers. The PSO is also used to subsidise the use of peat in electricity generation and for other purposes. In 2013/14 the PSO levy amounted to €211m and around one-quarter of this was used for REFIT. This added less than €1 per month to the average monthly bill for domestic consumers.

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57 www.iwea.com.

58 http://www.iwea.com/windfarmsinireland.

59 http://www.eirgridprojects.com/pressmedia/.

60 Eirgrid confirmed on 28th January 2014 that landowners living near 400kV pylons would get a once-off payment of €30,000 for residences at 50m to €5,000 at 200m. Under new rules, communities will also get funds amounting to €40,000 per kilometre (SLR, 2014).

61 Eirgrid Review of Public Consultation Underway:

http://www.eirgrid.com/media/EIRGRID%20REVIEW%20OF%20PUBLIC%20CONSULTATION%20UNDER%20WAY.pdf

Micro-generation includes the following: small-scale wind turbines; solar photovoltaic (PV) cells (i.e. solar electric panels); micro-hydro; and micro-CHP. Off-grid energy production is not permitted, so energy produced is linked to the national grid. Micro-generation requires advanced technology to enable it to be successfully integrated into the grid. Research is ongoing by the Micro Electricity Generation Association (MEGA) with a pilot of smart-energy clusters in Tallaght, with funding from Enterprise Ireland (see Box A1). MEGA argues that community energy generation is a valuable way of balancing the grid when consumed in real time or stored for later use using early Smart Grid Technologies. Smart grids may open up significant opportunities for the development of the micro-generation sector (MEGA, 2011). [62]

Box A1: Smart Micro-Energy Test Bed

The Micro Electricity Generation Association (MEGA) has partnered with South Dublin County Council and Irish Technology Companies to set up the Tallaght Smart Micro Energy Test Bed, with SEAI and Enterprise Ireland funding. This aims to test, certify and license a smart-grid system for enabling community-energy systems to trade/exchange locally generated energy in the local community. The technological capability of creating smart local-area electricity pools, powered by the internet, forms the basis of this project. This technology, combined with willing communities, can enable 'smart power-matching' in a local area in harmony with the national electricity system.

Source: MEGA 2014.

[62] http://www.cer.ie/docs/000142/cer12004(w).pdf.

Additional Appendices

Box A2: Nova Scotia Renewable-Energy Stakeholder Consultation Process

In 2009, a consultation process was conducted in the province of Nova Scotia to help focus policy on achieving 25-per-cent renewable electricity generation by 2015. Key steps included the development of energy scenarios by a group of 80 academics, environmental organisations, social-justice organisations, local government, renewable-energy developers and power generators among others. Four scenarios were then outlined in a discussion paper to a public session with 115 stakeholders. A synthesis paper, covering all key points gathered to date, was then presented to a second public session, with 120 stakeholders. A third stakeholder session examined an interim report, which was then finalised and submitted to government. The final report was submitted to the Government in late 2009. The new Renewable Electricity Plan was announced by the Government in April 2010, embracing most of these recommendations. It is believed that the policy frameworks now in place are internally consistent and resilient precisely because of the process that took place to design them.

Source: Adams *et al.*, 2011.

Box A3: Clare County Council Development Plan and Wind-Energy Strategy

In County Clare, the Wind-Energy Strategy is included in the County Development Plan. It provides a detailed account of suitable wind sites, targets, objectives and strategies, as well as an overview of the SEA process. Three layers of consultation were conducted: (i) In terms of public consultation, advertisements were placed seeking public submissions. A total of 36 submissions were received and the issues raised have informed the development of this Strategy. Submissions were also received as part of the Statutory Development Plan, making process of the County Development Plan and Wind-Energy Strategy. (ii) For SEA and HDA scoping consultation, 25 public bodies were contacted as well as other statutory and non-statutory consultees. Submissions were also received on SEA and HDA as part of the Statutory Development Plan process. (iii) Consultations with agencies were conducted including: Clare County Council Planning Section; Irish Wind-Energy Association; Eirgrid; Shannon Development; Limerick Clare Energy Agency; University of Limerick; Environmental Protection Agency (as part of the Strategic Environmental Assessment process); Geological Survey of Ireland; and the National Parks and Wildlife Service (as part of the Habitats Directive Assessment process)

Source Clare County Council, (2011)

Box A4: Aarhus Convention

The Aarhus Convention on the Access to Information, Public Participation in Decision-Making and Access to Justice on Environmental Matters was negotiated by the UN Economic Commission for Europe in 1998 and came into force in 2010(Stec et al., 2000).

Pillar I: Access to Information: Article 4 provides for a 'passive' access to information—the right of the public to seek information from public authorities and their obligation to provide information in response to a request. Articles 5 and 6 concern 'active' access to information—the right to receive information and the obligation of authorities to collect and disseminate information of public interest without the need for a specific request.

Pillar II: Public participation in decision-making: The second pillar, on public participation, is divided into three parts. Article 6 concerns participation by the public in decision-making on a specific activity. Article 7 concerns the participation in the development of plans, programmes and policies relating to the environment. The obligations of authorities and the rights of the public are somewhat less clearly defined than in Article 6. Article 7 allows states more flexibility in finding appropriate solutions for public participation in this category of decision-making. It distinguishes between plans and programmes, on the one hand, and policies on the other. Article 8 refers to participation of the public in the preparation of laws, rules and legally binding norms.

Pillar III: Access to justice: The third pillar enforces the information and the participation pillars in domestic legal systems, and strengthens enforcement of domestic environmental law. The justice pillar also provides a mechanism for the public to enforce environmental law directly.

The Aarhus Convention in Ireland

Ireland ratified the Aarhus Convention in 2012 but as the EU ratified it in 2005, the Convention has impacted on Irish environmental law and policy primarily via obligations arising under EU law (Ryall, 2013). Two directives were adopted to align certain aspects of EU law with Aarhus: Directive 2003/4/EC on public access to environmental information and Directive 2003/35/EC on public participation. Under the latter directive member states must 'ensure that the public is given early and effective opportunities to participate in the preparation and modification or review of plans and programmes'. The detailed arrangements for this 'shall be determined by the Member States so as to enable the public to participate effectively' (Official Journal of European Union, 25.6.2003).

The actions taken to comply with the Convention are set out in the Irish Government's official report to the UN in 2011 (Government of Ireland, 2014). That report summarises Ireland's transposition of the key EU directives and other policy and procedural measures adopted. These primarily involve EPA monitoring, data collection and dissemination, modification of various consent procedures, the terms of reference of Environmental Impact Assessments and Strategic Environmental Assessments, notification and consultation on county development plans, support for the Irish Environmental Network, the creation of Aarhus databases and websites, regulatory impact assessment and the establishment of the new Office of the Planning Regulator.

Table A1: Previous Forms of National Public Deliberation

Policy Initiative	Purpose	Type of Engagement Scale
The Convention of the Constitution 2012–2014[63]	To debate and recommend on particular areas for reform in the Irish Constitution.	Unique forum of 100 people, representative of Irish society and parliamentarians from the island of Ireland, with an independent chairman.
The National Forum on Europe 2005–2009[64]	Promoted a national debate on the European Union and Ireland's role in it.	Workshops, large consultation events, speaking competition for Transition Year students, website.
Review of the White Paper on Irish Aid 2011–2012[65]	To set out Ireland's policy directions on Irish Aid within the changing national and international context.	Four large public meetings, including a meeting in Malawi. Focus of Department of Foreign Affairs NGO Forum on Human Rights, discussions with Joint Oireachtas Committees.
The National Forum On Europe 2001–2009	To animate and promote public debate on the EU, its enlargement, its future and Ireland's place in it.	For Oireachtas members only but included a special Observer Pillar consisting of the Social Partners, groups active in the previous EU referenda campaign, registered political parties not represented in the Oireachtas, and political parties from Northern Ireland.
The Task force on Active Citizenship 2006–2007 (Active Citizenship Office, 2008: 10)	To examine what it means to be an active citizen in 21st-century Ireland.	Included: the receipt of over 1,000 submissions; six public consultation events around the country; a survey of young people.
New Ireland Forum 1983–1984[66]	The Forum was established by Taoiseach Garret FitzGerald to consider potential political developments in relation to Northern Ireland. The Forum's report, published on 2 May 1984, provided a basis for the development of the 1985 Anglo-Irish Agreement	The forum was open to 'all democratic parties which reject violence and which have members elected or appointed to either House of the Oireachtas or the Northern Ireland Assembly and included the SDLP, Fine Gael, Fianna Fáil and the Labour Party'.

63 https://www.constitution.ie/Convention.aspx.

64 http://www.forumoneurope.ie/index9f15.html?locID=482&docID=-1.

65 https://www.irishaid.ie/about-us/our-policies/white-paper-on-irish-aid/.

66 http://en.wikipedia.org/wiki/New_Ireland_Forum#Members.

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