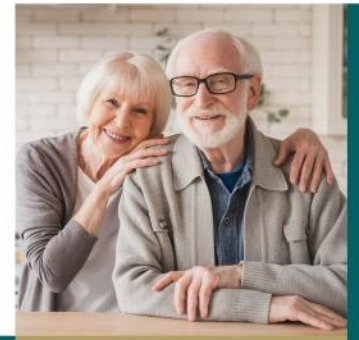
EirGrid

EirGrid.ie

Energy Citizens Roadshow

Laois

26 / 10 / 2023



Home Energy Grants and Upgrades

Micro-generation and Community Ownership



Regional and Social Development



EirGrid

EirGrid Energy Citizens Roadshow

Welcome.

Please take time to network, explore the information stands and help yourself to refreshments.

The panel discussion will commence at 7pm.

EirGrid



Open and Welcome

Sinead Dooley, EirGrid





EirGrid

Overview of this evening

Ciaran Mullooly, MC





EirGrid

EirGrid Energy Citizens Roadshow

6.30pm	Sign In, Networking, Information Stalls and Refreshments.
7.00pm	Open and Welcome *Sinead Dooley, EirGrid*
7.05pm	Overview of Event and Introduction of the Panel *Ciaran Mullooly, Master of Ceremonies*
7.10pm	What Shaping Our Electricity Future means for Kilkenny *Michael Mahon, EirGrid*
7.25pm	National Network, Local Connections, Microgeneration and Smart Meters *Gerry Noone, ESB Networks*
7.40pm	SEAI Supports for Communities and Households *Emer Conway, SEAI*
7:50pm	Questions and Answers
8.25pm	Wrap up and close of event

EirGrid ESB NETWORKS seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND



What Shaping Our Electricity Future means for Laois

Michael Mahon, EirGrid





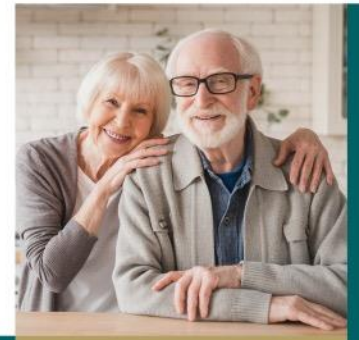
EirGrid

EirGrid.ie

Energy Citizens Roadshow

Laois

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Home Energy Grants and Upgrades

Micro-generation and Community Ownership



Regional and Social Development



Who are EirGrid and What Do We Do?

State-owned operators of Ireland’s electricity transmission grid.

We send power from where it is generated to where it is needed.

We operate the wholesale electricity market.

We operate electricity interconnectors with neighbouring countries.

We do not generate electricity.



Ireland’s electricity grid

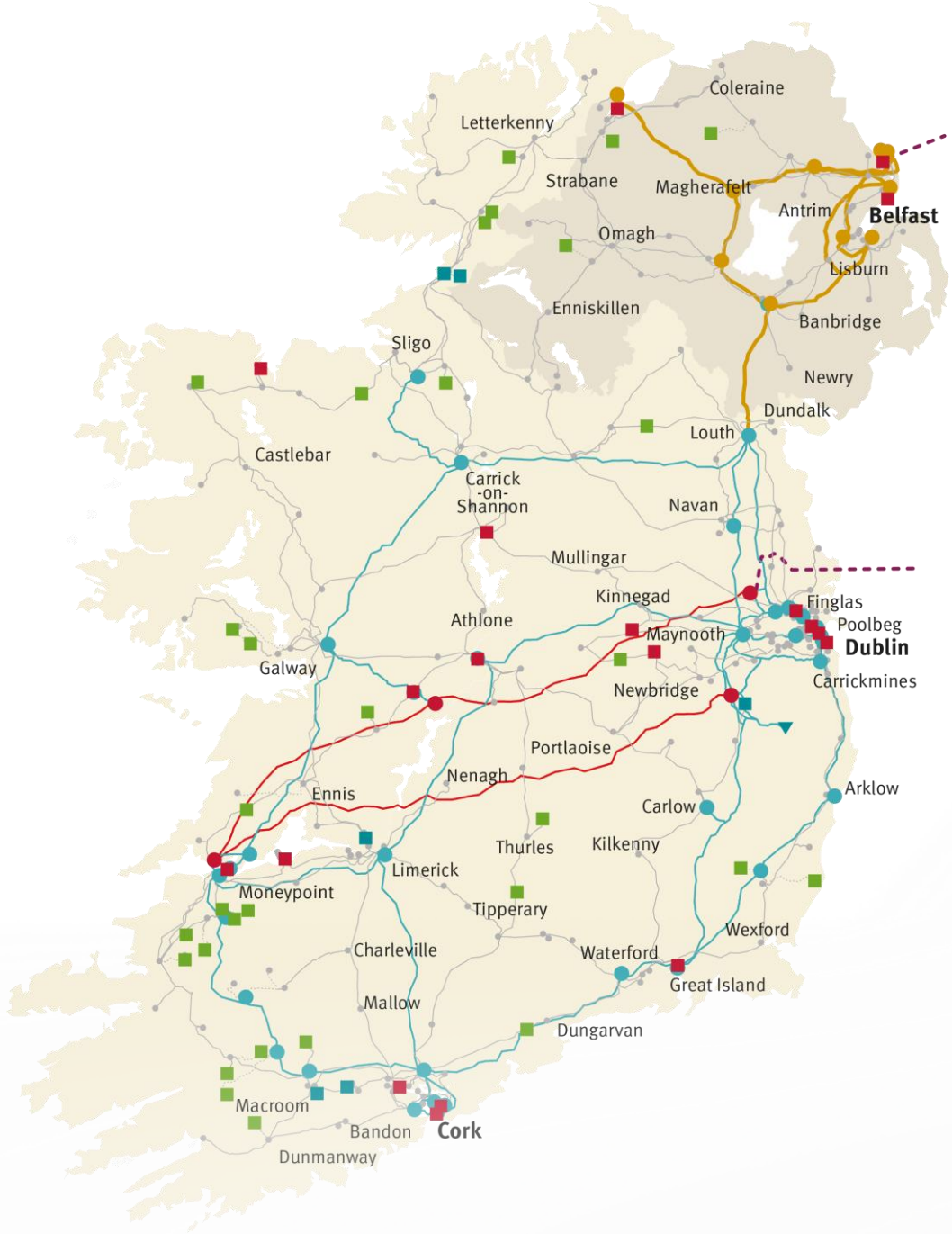
The grid gets into every corner of Ireland, bringing reliable power to homes, farms, schools, hospitals, and businesses.

There is approximately 9,500 km of high-voltage (110kV+) powerlines and cables across the island.

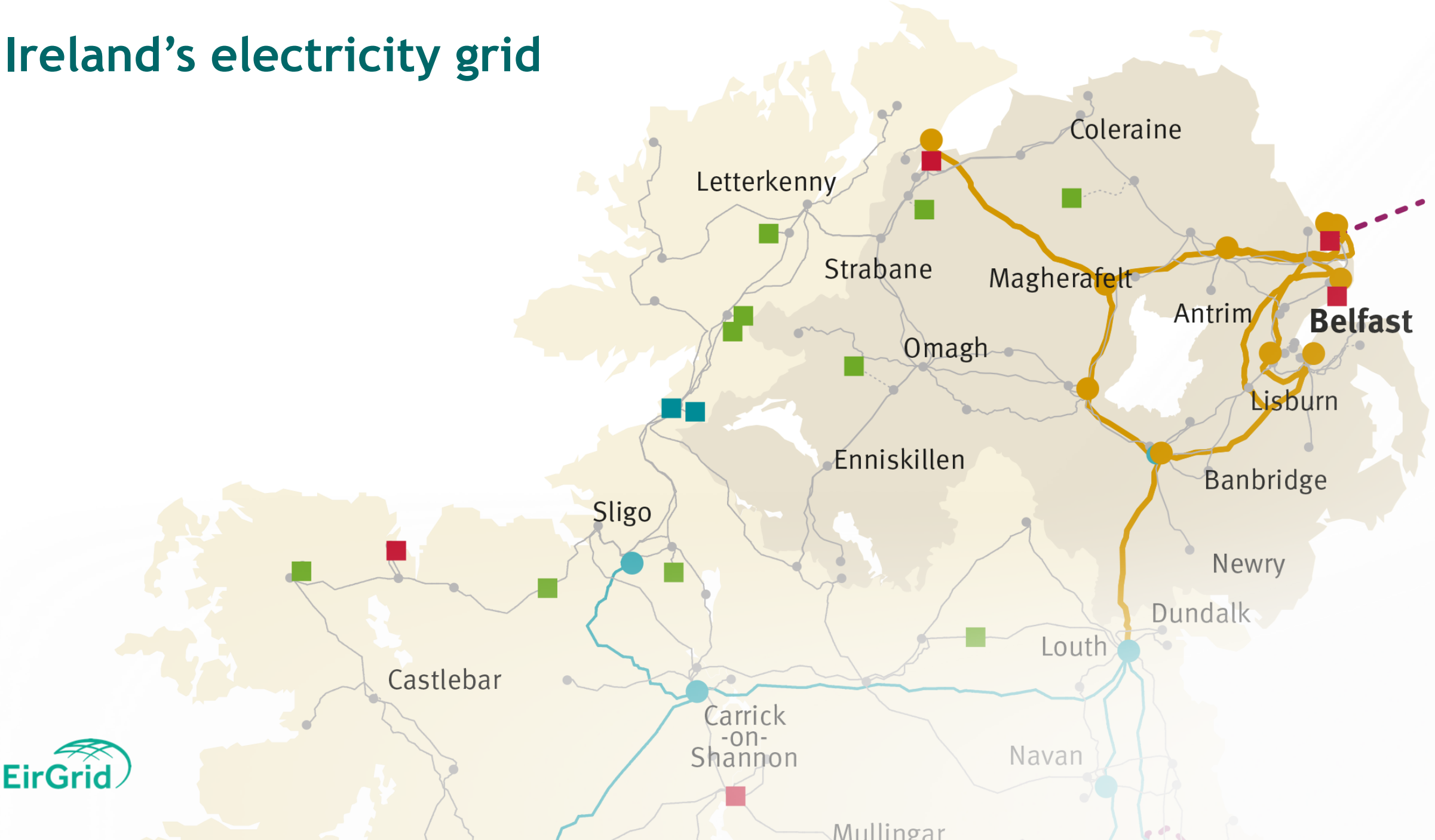
Peak demand during the cold snap last December was 7,031MW.

Electricity is getting greener all the time.

EirGrid

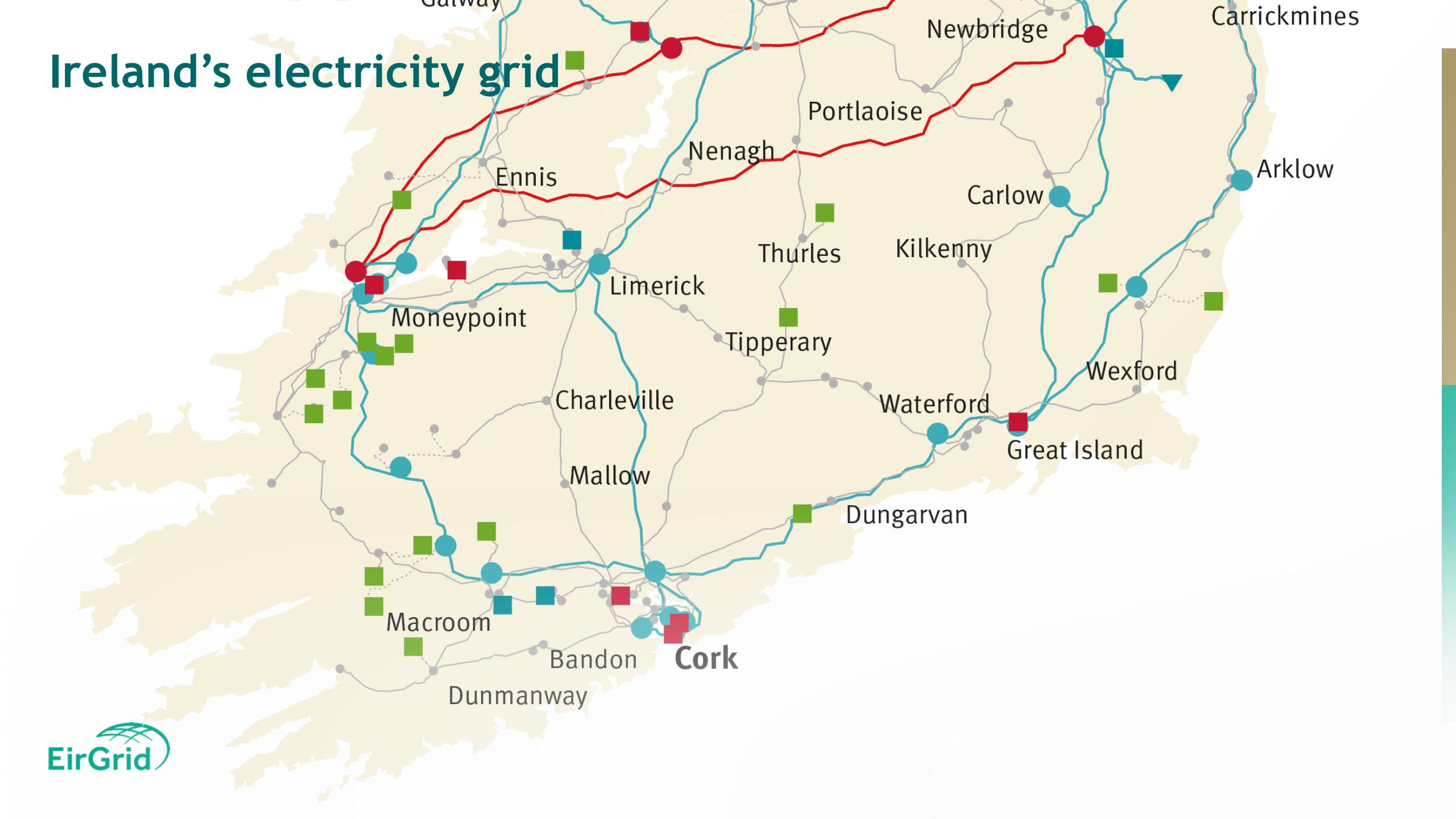


Ireland’s electricity grid



EirGrid

Ireland’s electricity grid



EirGrid


The Government has asked us to prepare the grid so up to 80% of Ireland's electricity can come from renewable sources by 2030
EirGrid

Ireland's Electricity Grid

The grid needs to carry at least **17GW** more renewable electricity by 2030 – that is more than triple 2020 levels.

100 kilowatts =



30 Homes

100KW is enough to power approximately **30 homes**

1MW megawatt =



300 Homes

One Megawatt is enough to power approximately **300 homes**

1GW gigawatt =



300,000 Homes

One Gigawatt is enough to power approximately **300,000 homes**

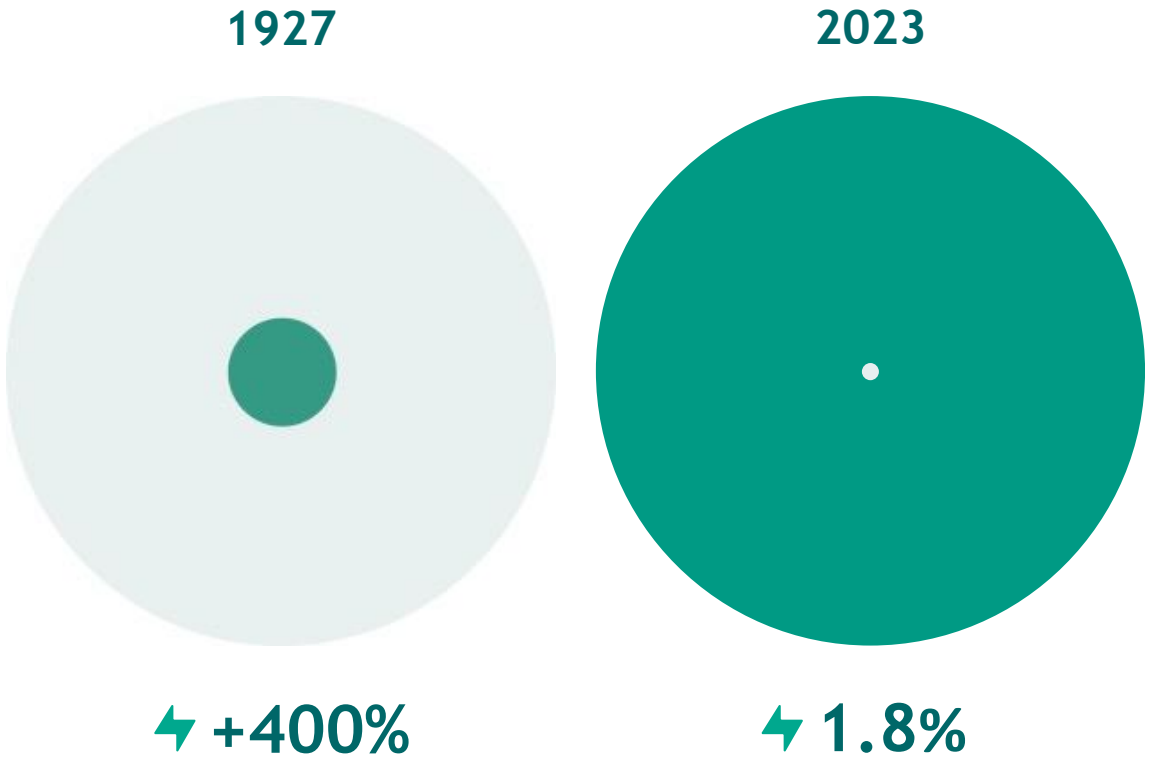
EirGrid

Ardnacrusha Hydroelectric Power Plant

In 1927, the Ardnacrusha hydroelectric power plant provided 4 times the amount of energy required (**400%)** by the country and was completed at a cost of one fifth of the Irish state budget. In 2023, it now represents approximate **1.8%** of our needs.

Amount of power needed

Power generated from Ardnacrusha



EirGrid

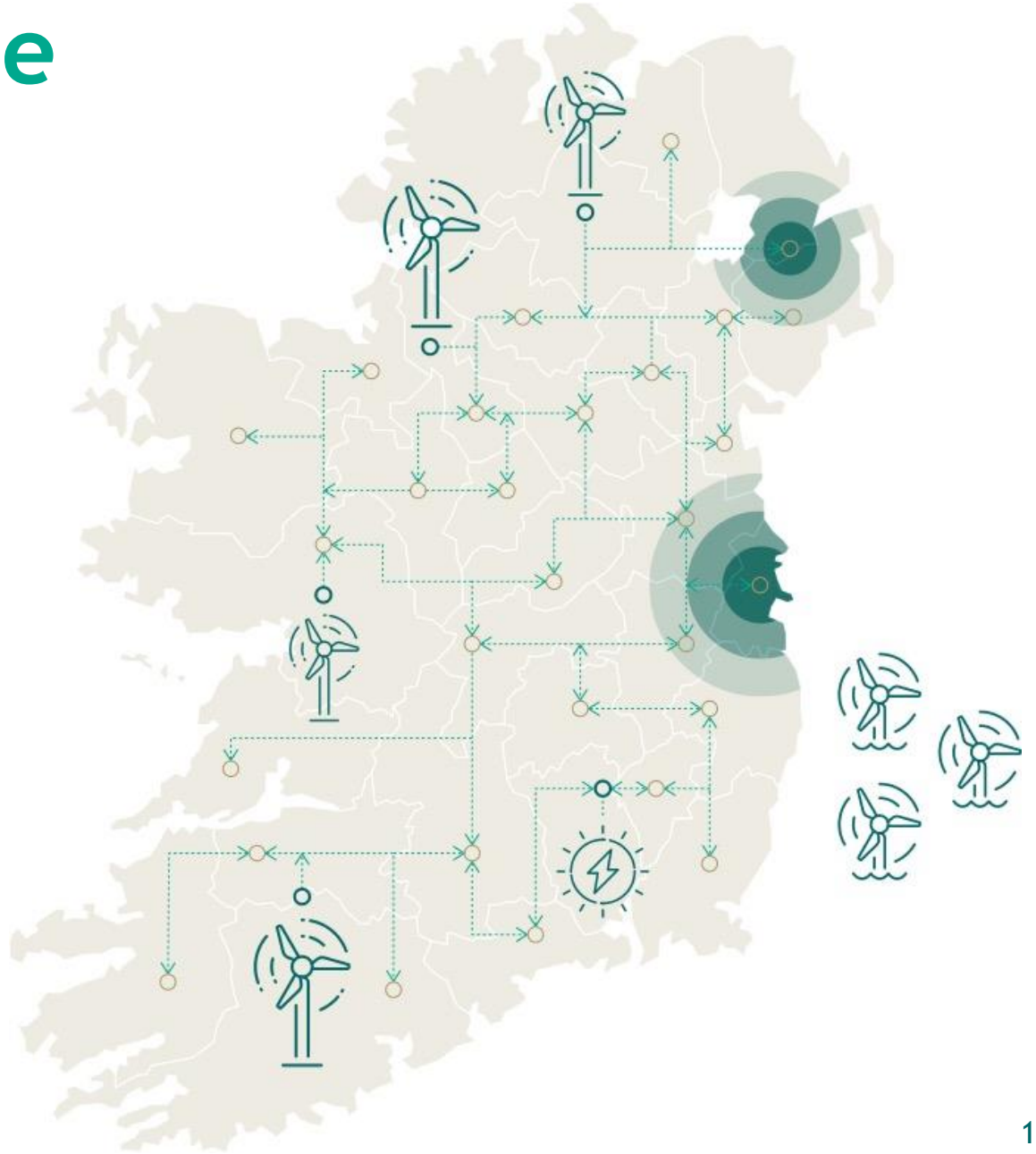
Context for preparing the plan

More electricity will be carried across the grid than ever before, and most of this power will come from renewable sources.

The grid needs to carry at least 17 GW more renewable electricity by 2030 – triple 2020 levels.

Power generated from renewable sources depends on the weather.

Renewable electricity is typically generated far away from where most electricity is used.



How did we consult and engage?



2
Civil Society Forums

Ireland & Northern Ireland

National Youth Assembly in Ireland

500+
Consultation Responses

TED^{x} Stormont Youth Event

100+
Virtual Consultation Events

- Local Authorities
- Chambers of Commerce
- Rural Communities
- Agricultural Organisations
- Community and Voluntary Groups

14 Week
Consultation and Engagement Programme

99
Deliberative Dialogue Participants in Ireland

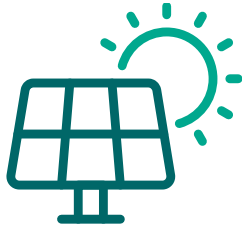
2
Industry Forums

EirGrid

What did the Public say?

- Onshore-generation
- Security-of-supply
- Public-engagement
- Landowner-concerns
- Ecology
- Environment
- Offshore-wind
- Future-proofing
- New-technology

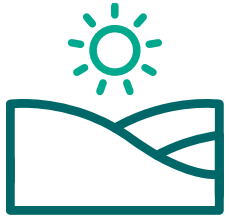
Recurring themes:



Microgeneration



Community Ownership



Benefits for regional and rural communities



Social Acceptance



Keeping costs manageable

What infrastructure will be required?

294

Existing
Projects
in the pipeline

40

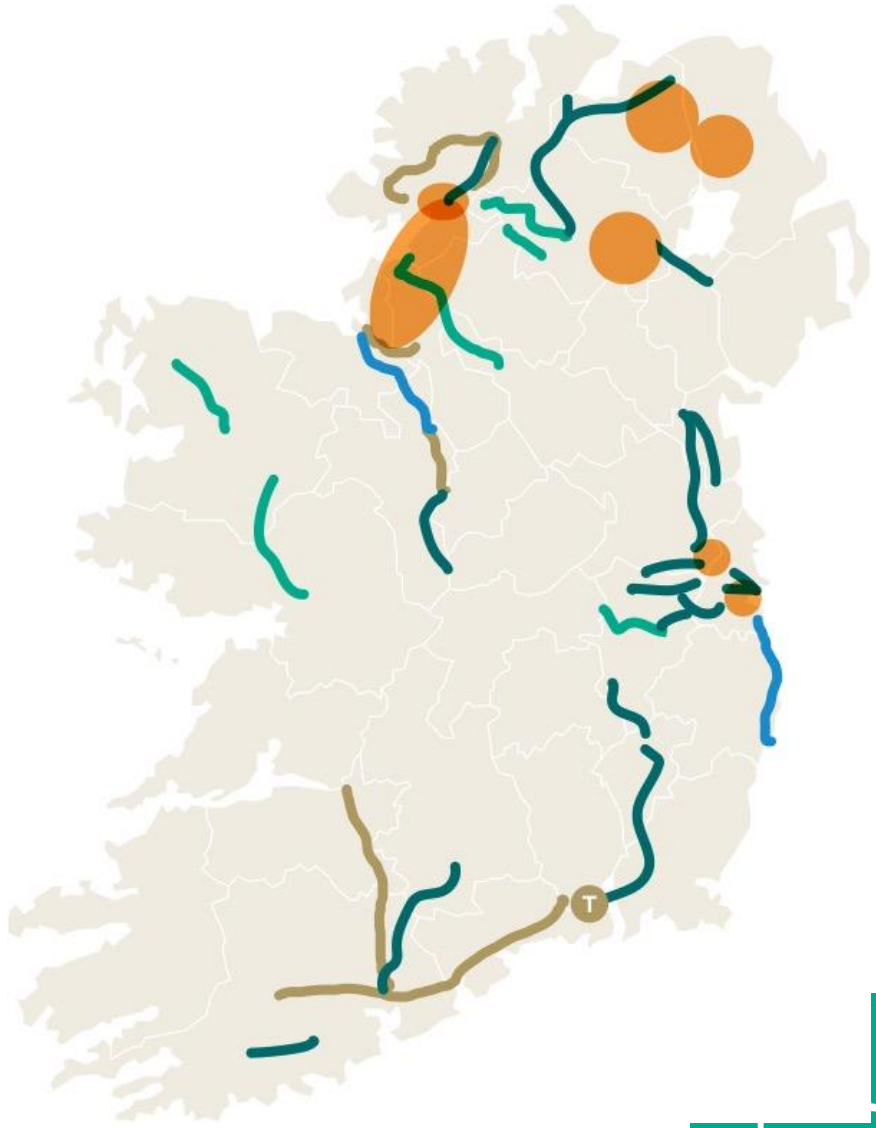
New Projects in Ireland

4 new circuits
24 upgrades to existing circuits
1 new transformer
11 new technology projects

12

New Projects in Northern Ireland

3 new circuits
7 upgrades to existing circuits
2 new technology projects



New Circuit (indicative area shown)
Uprate Circuit
Upvoltage Circuit
Dynamic Line Rating
Power Flow Controller
New Transformer

EirGrid

Our 6 Step Approach to Project Development



Step One	Step Two	Step Three	Step Four	Step Five	Step Six
How do we identify needs of the electricity grid?	What technologies can meet these needs?	What's the best option and what area may be affected	Where exactly should we build?	Apply for planning permission	Construct, energise (make live), and share benefits.

EirGrid

Laois Kilkenny
Reinforcement Project

We are reinforcing the electricity grid in the general Laois Kilkenny region by upgrading the existing grid network as well as building new infrastructure.

The Laois-Kilkenny Project is required to increase the capacity of electricity supply across Laois, Carlow, Kildare, as well as address issues around security of electricity supply affecting County Kilkenny.

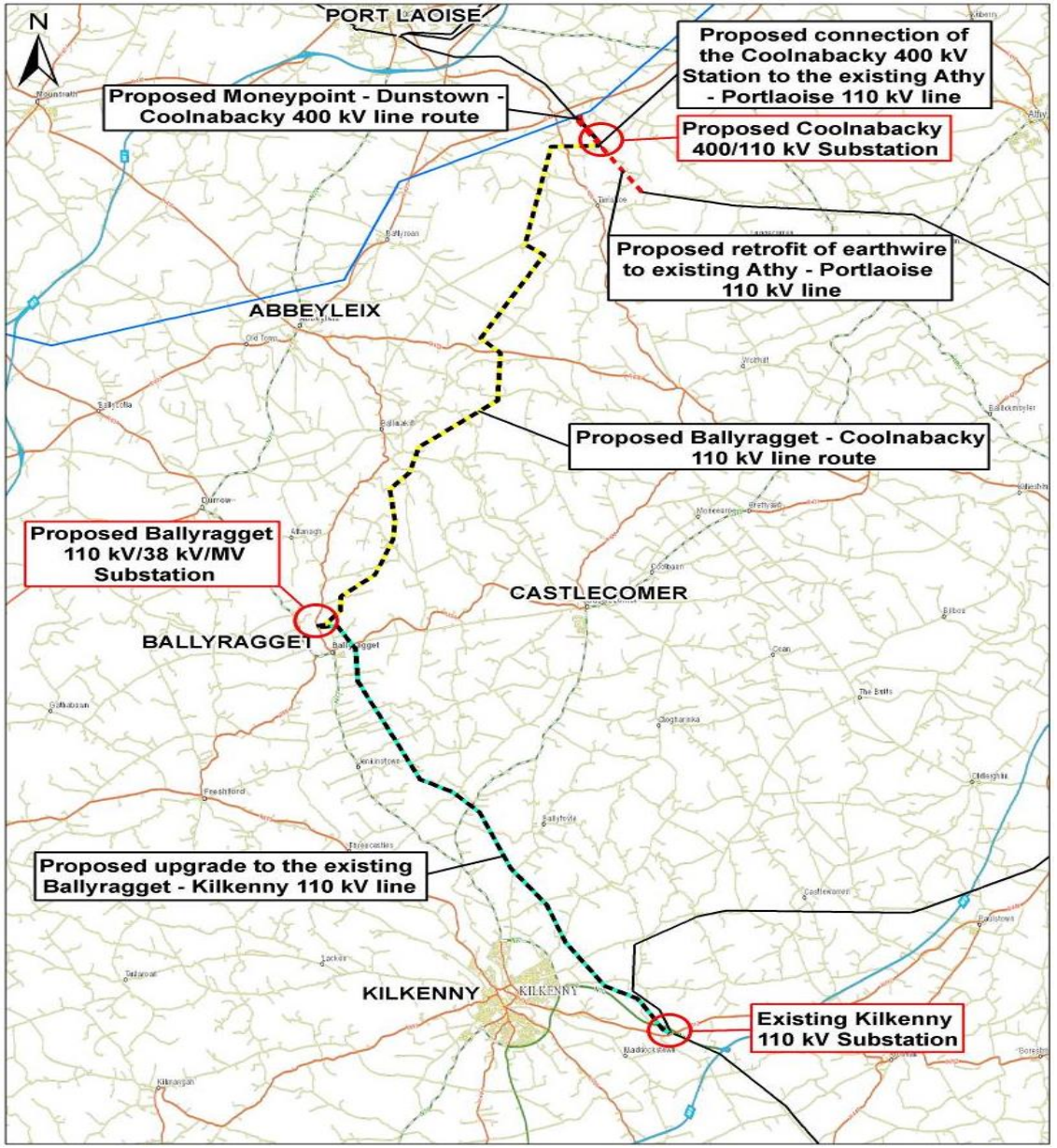
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Proposed Development

- **Unit 1** - New 400/110 kV GIS substation in the townland of Coolnabacky, Co. Laois
- **Unit 2** - New connection to the Coolnabacky substation from the existing Moneypoint - Dunstown 400kV line (1.2km)
- **Unit 3** - New connection to the Coolnabacky substation from the existing Athy - Portlaoise 110 kV line
- **Unit 4** - A new 110 kV / 38 kV / MV substation just outside Ballyragget, Co. Kilkenny.
- **Unit 5** - A new 110 kV overhead line between the Ballyragget substation and the Coolnabacky substation (26km)
- **Unit 6** – Uprate of the Existing Ballyragget - Kilkenny 110 kV OHL (22km)
- **Unit 7** - A New Bay in the Existing Kilkenny 110 kV Substation
- **Unit 8** - Modifications to Existing Athy - Portlaoise 110 kV Line (3.6km)



Laois Kilkenny Reinforcement Project
Community Benefit Fund €511,500

Phase 1
Construction

Phase 2
Line stringing completed

Phase 3
Project complete and live



EirGrid

Community Benefit Fund Phase 1
Examples of projects funded

Ballinakill, Community Development
Solar Powered Community Swimming Pool

€40,500 awarded



Spink Comhaltas
Music Festival

€17,300 awarded



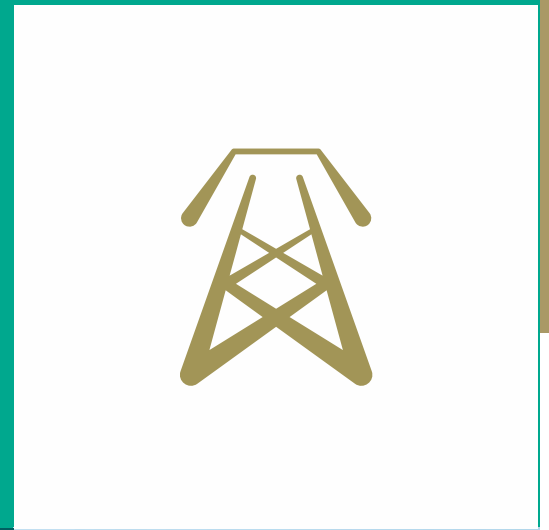
Ballyragget GAA Club
Facilities Enhancement Project

€18,750 awarded



Summary

- Shaping Our Electricity Future Roadmap was published in November 2021.
- It provides a robust and deliverable plan for 2030 and ultimately towards a new zero carbon energy system by 2050
- To achieve renewable ambitions by 2030, significant network delivery will be required (existing projects, refurbishments, new projects)
- An update is due in the coming months to reflect new Government policy.





Thank you

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Ballsbridge
Dublin 4
D04 FW28

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EirGrid

National Network, Local Connections, Microgeneration and Smart Meters

Gerry Noone, ESB Networks





EirGrid



EirGrid Energy Citizens' Roadshow: Laois

Gerry Noone, Product Proposition Manager

Who We Are



Future Energy Customers



Our Services



Who is ESB Networks?

We deliver and connect electricity to 2.4 million homes and businesses. We play a central role in enabling climate action through the electrification of heat and transport as well as connecting renewables.



Delivering Electricity for 90 Years



180,000 km Network



€800m Annual Investment



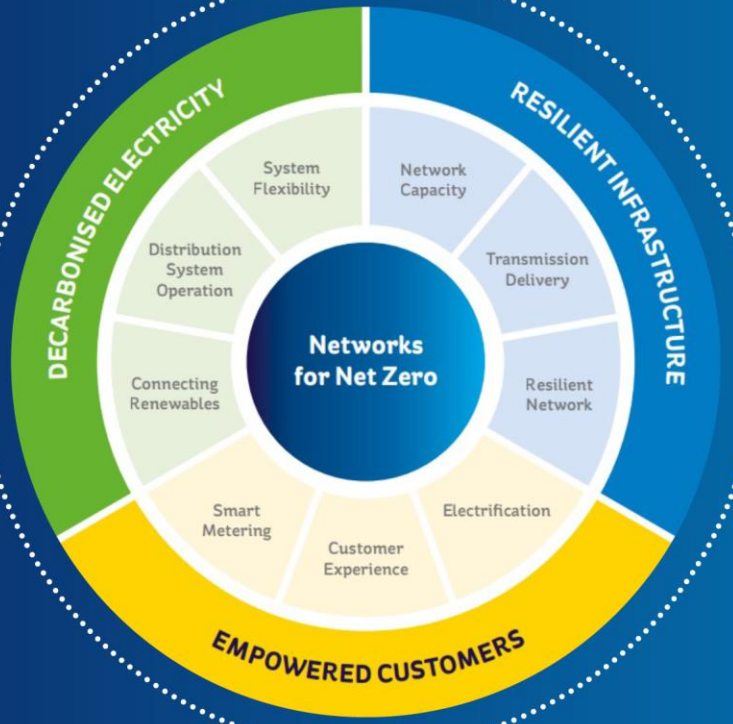
3,500 Employees nationwide

Our focus: Sustainability at our core

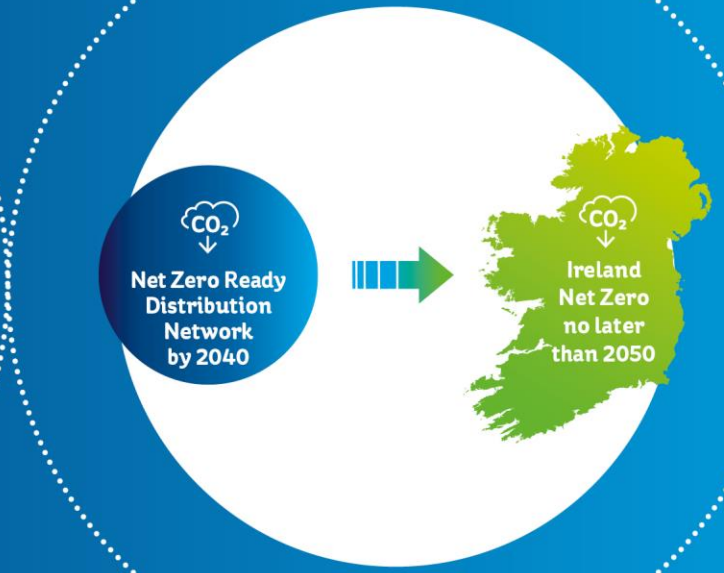
ESB Networks: Delivering Ireland's electricity network for a clean electric future



Delivering our Net Zero Strategy



Supporting Ireland's Climate Action Plan



Where do customers fit into all this ‘sustainability’ NOW ?

Customers will play an essential role in achieving the ambitious climate change targets….



Right now :

- +18,000 domestic customers are delivering demand flexibility by signing up to Is This A Good Time?
  - Get involved at esbnetworks.ie/weather
  - +40 commercial customers are supporting the efforts to help with security of supply
- +400,000 customers adopting solar/heat pump technology
- + 34,000 customers adopted for EV's in 2023
- +68,000 participating in microgeneration
- 1 million Solar Panels across Ireland
- Community energy projects

(numbers correct as of August 2023)

Where do customers fit into all this future ‘sustainability’?

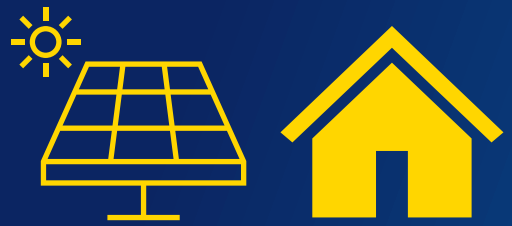


Our Services

- Connection of Micro Generation & Mini Generation
- ESB Networks Online Account
- National Smart Metering Programme
- Security of Supply – Initiatives



Connecting Micro-Generation



Think solar panels on the roof of the home



NC 6 Form



Free of cost

(numbers correct as of August 2023)

Connecting Mini-Generation



NC 7 Form

Approx €1,000

(numbers correct as of August 2023)

Smart Metering

Over 1.4 million smart meter installations across the country



Supports micro gen



View your electricity usage on your ESB Networks Online Account



Empowers all electricity customers to take control



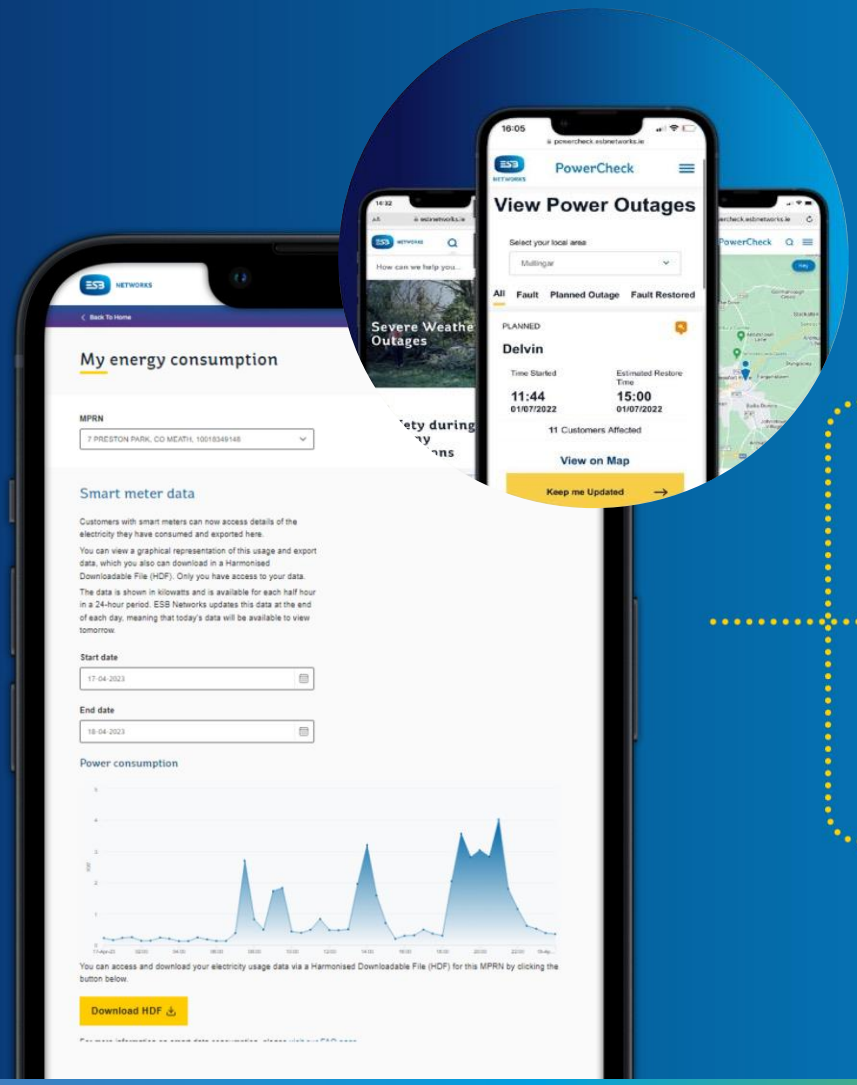
No more estimated bills

ESB Networks Online Account

Access your energy consumption data

Submit Your Meter Reading

View Your Power Outage Status



Find my MPRN
(Personal Meter Identifier)

Apply & Track Connections
(Homes & Business)

Participate in ‘Is This a Good Time?’

Sign up to our ‘Is This a Good Time?’ Customer Programme



- Get useful information and tips to help you learn how to **take control** of your home's electricity usage.



- Find out **when the best times are** to use your electrical appliances (i.e. outside of peak hours of 5-7pm or when renewable electricity is being generated).



- Get **rewarded** for taking control when prompted (via energy events).

esbnetworks.ie/weather

Winter Commercial Initiatives….



Coming soon…



Q&A





engagement@esbnetworks.ie

SEAI Supports for Communities and Households

Emer Conway, SEAI





EirGrid

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Rialtas na hÉireann
Government of Ireland

www.seai.ie

We work with Government, homeowners, business and communities to create a cleaner energy future



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The Role of SEAI

- We are at the heart of delivering Ireland's energy revolution

- We are driving the replacement of fossil fuel usage in all sectors and across society



SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Creating a Cleaner Energy Future

Climate Action Plan set out to significantly reduce Ireland's greenhouse gas emissions by 2030

- 500,000 existing homes upgrade to a B2 BER rating
- 600,000 heat pump installations, with 400,000 to be installed in existing homes
- 50% of houses in Ireland have a BER rating of D or lower and require significant energy upgrades
- To date SEAI has supported over 450,000 homes with their home energy upgrade journey







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Home Energy Upgrade

Upgrade your home to be more energy efficient and discover a new world of comfort!

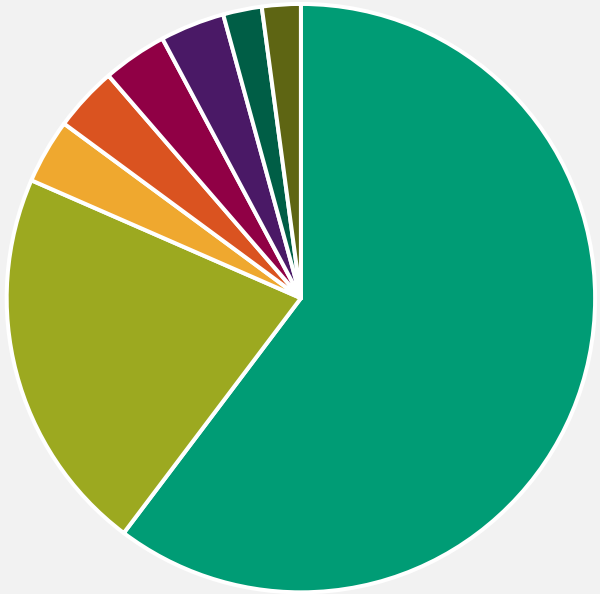


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Home Heat Loss and Energy Use

Houses account for a quarter of all energy consumption in Ireland

Heating accounts for 80% of your home energy



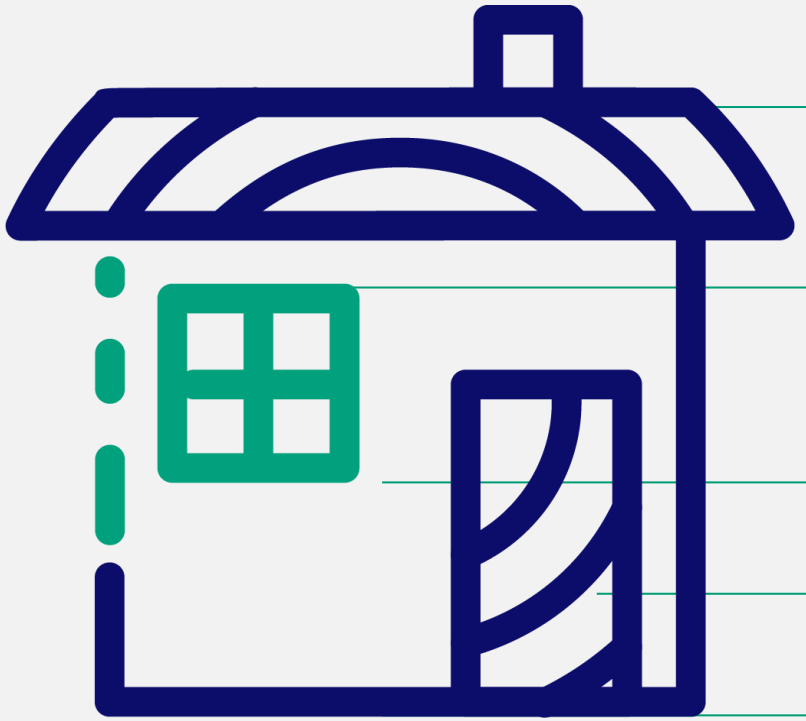
- Space heating
- Water heating
- Cold appliances
- Consumer electronics
- Cooking
- Lighting
- Wet appliances
- Miscellaneous



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Home Heat Loss and Energy Use

Where you lose energy in your home...



Roof **30%**

Air infiltration **10%**

Walls **30%**

Doors & Windows **10%**

Floors **20%**



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Benefits of a Home Energy Upgrade

Comfort

Enjoy a warmer, cosier and healthier home by upgrading your insulation and adding renewables

Savings

Save on energy bills by using less energy and adding renewable energy to your home

Environment

Reduce your emissions and your carbon footprint with an energy efficient B2 home

Value

Increase the value of your property by upgrading your home to a B2 rating or higher

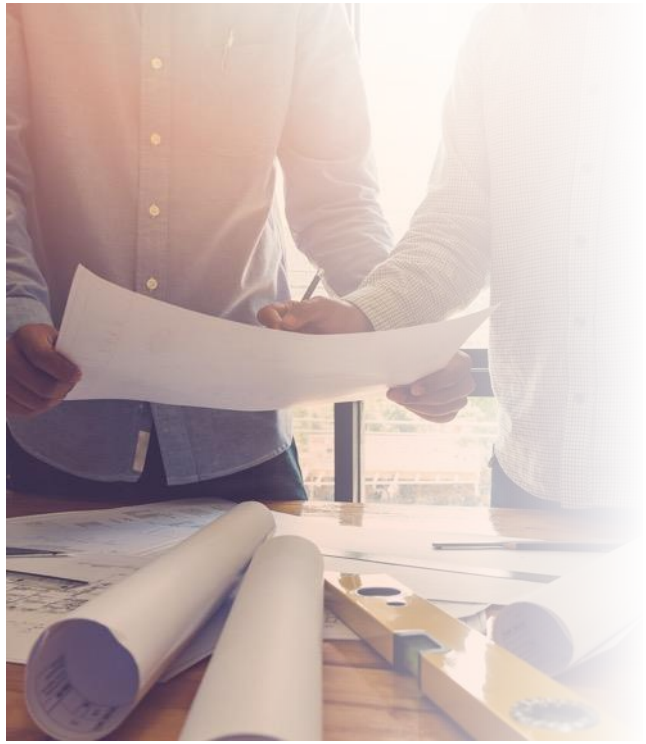


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Three Steps to a Home Energy Upgrade

Maximise the comfort and savings of your home with these 3 steps to a home energy upgrade

1. Assess



2. Insulate



3. Add Renewables



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1. Assess

- Don’t know where to start? Get a BER assessment of your home
- It will provide you with a roadmap to achieving a minimum B2 BER energy rating
- You will find a list of registered BER Assessors on the SEAI website: www.seai.ie



2. Insulate

- The next step is to insulate your home and keep your valuable heat in!
- You may also need to replace old windows and doors to improve insulation
- SEAI offers homeowners insulation grants ranging from up to €1,500 for attic insulation up to €8,000 for external wall insulation

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3. Add Renewables

- Once your home is well insulated you should then consider adding renewable technologies
- Heat pump systems – a highly efficient alternative heating system to fossil fuel oil or gas boilers
- Solar PV – save between €200 - €300 per year on your domestic electricity bill
- Solar thermal systems – designed to meet 50-60% of hot water requirement
- SEAI offers renewable grants of €6,500 for heat pumps, up to €2,400 for Solar PV and €1,200 for solar thermal.

Compare your Home Energy Upgrade Options

Free Energy Upgrade

- For qualifying homeowners in receipt of certain welfare payments
- Fully funded by SEAI
- This service is managed by SEAI
- Home survey
- Contractor selection
- Contractor works
- Follow up BER

One Stop Shop Service

- Complete home energy upgrade solution
- Part funded by SEAI
- One Stop Shop fully managed solution including grant application
- Multiple energy upgrades
- Pay for works net of eligible grant
- Minimum number of energy upgrades and achieve a min B2

Individual Energy Upgrades

- Selection of individual grants for home energy upgrades
- Part funded by SEAI
- Homeowner manages their own energy upgrade project
- Contractor selection
- Grant application
- Contractor works
- Pays for works and then claims grant back

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Home Energy Upgrade Grants

	Free Energy Upgrade	One Stop Shop Service	Individual Energy Upgrade
Home energy assessment	✓	✓	
Project management	✓	✓	
Wall and roof insulation	✓	✓	✓
Floor insulation		✓	
Windows	✓	✓	
Heating controls	✓	✓	✓
Heat pump systems	✓	✓	✓
Solar water heating		✓	✓
Solar electricity		✓	✓
Ventilation	✓	✓	
BER assessment	✓	✓	✓

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SEAI Solar PV Grants

The grant is paid on a pro rata basis e.g. for a 2.5kWp system the grant value would be €1,950

Grant name	Value	Example
Solar PV grant	€900 per kWp up to 2kWp	€1800 for 2kWp solar panels
	€300 for every additional kWp up to 4kWp	€2100 for 3kWp solar panels €2400 for 4kWp solar panels
	Total Solar PV grant capped at €2400	

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Community energy



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Sustainable Energy Community

A community that works together to develop a sustainable energy system for the benefit of the community

- Aiming to be as energy efficient as possible;
- Use renewable energy where feasible;
- Consider smart energy solutions

It can be as small as a street or as large as a county or region

Communities of active energy citizens will lead the societal transformation to a low carbon future





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Community Journey



LEARN

SEC Network

Community Network – open, collaborative, sharing and learning network. Levels of activity vary.

PLAN

Energy Master Plans

100% funding to develop an energy master plan to baseline energy use in the community and to identify a register of energy opportunities

DO

Community Grants

Capital grant programme to support community retrofit. Community role can vary from participation to project leadership.

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ALMOST 700 COMMUNITIES

Part of SEAI's Sustainable Energy Communities Network

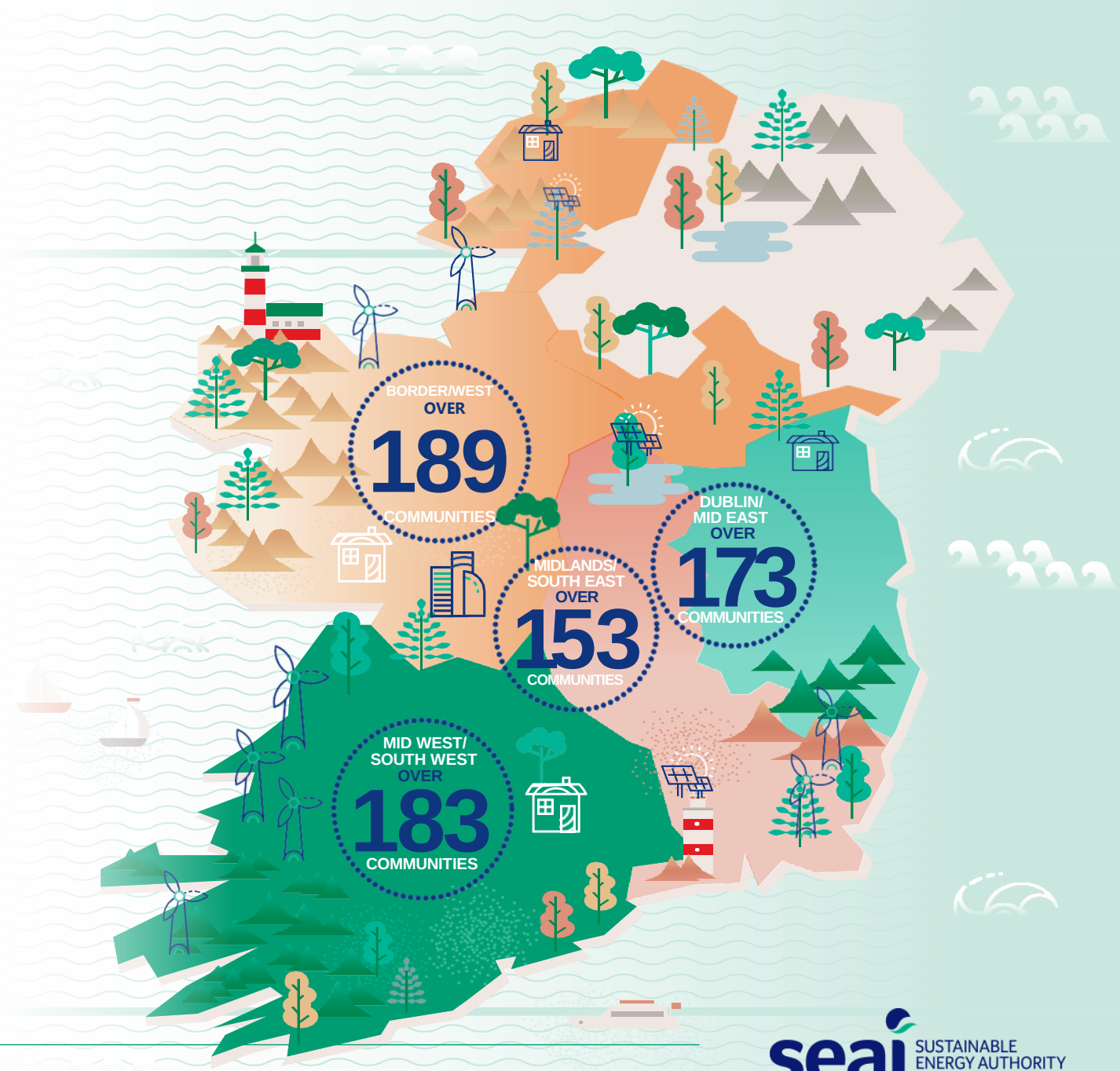
MORE THAN
35,000
CITIZENS ENGAGED

100 ENERGY MASTERPLANS COMPLETED

90
COMMUNITIES

Are currently working on their Energy Master Plans

Find out more at: www.seai.ie/sec

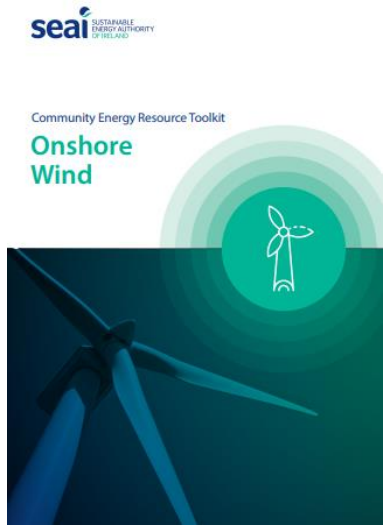


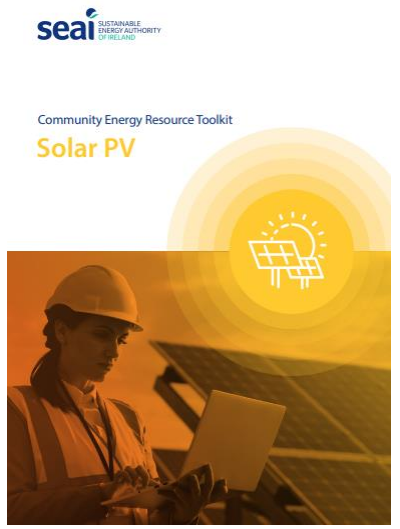
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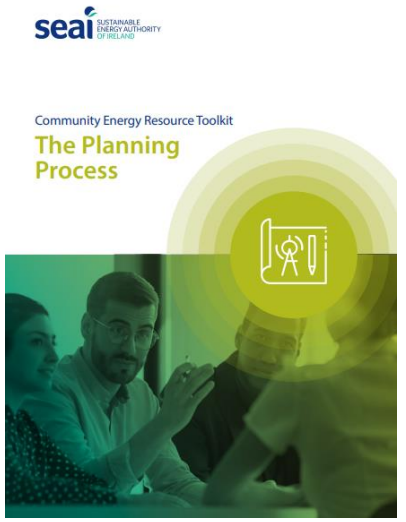
Renewable Electricity Support Scheme

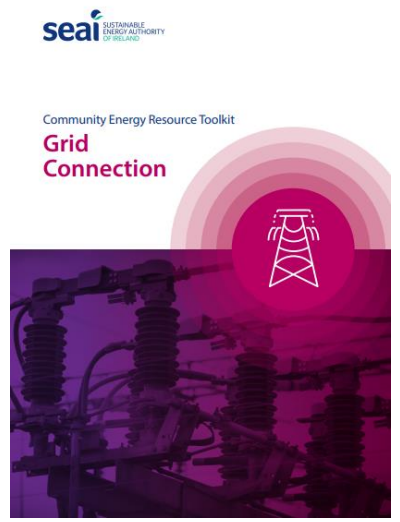
New Government scheme to support the development of renewable electricity projects in Ireland

- A dedicated Community strand – for those who want to generate renewable power
- SEAI is offering support. We will help you navigate your way through the journey
  - Expert support
  - Financial support
  - Information toolkit
- Further details email: **communityress@seai.ie**









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Thank you for listening

For more information visit **seai.ie**



SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Questions and Answers





EirGrid