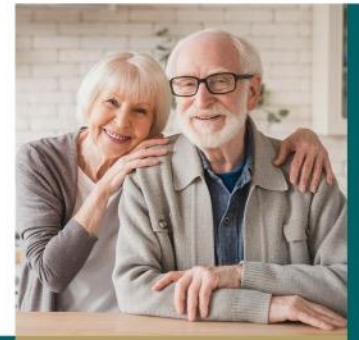
EirGrid

EirGrid.ie

Energy Citizens Roadshow

Maynooth, Kildare

02 / 02 / 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, Head of Public Engagement, EirGrid

EirGrid

Overview of this evening

Ciaran Mullooly, MC

EirGrid

Agenda

7.00pm Open and Welcome
Sinead Dooley, EirGrid

7.05pm Overview of Event and Introduction of the Panel
Ciaran Mullooly, MC

7.10pm What Shaping Our Electricity Future means for Kildare
Derek Carroll, EirGrid

7.25pm National Network, Local Connections
Gerry Noone, ESB Networks

7.40pm SEAI Supports for Communities and Households
Emer Conway, SEAI

7.55pm Opportunities for local businesses
Allan Shine, County Kildare Chamber

8:10pm Questions and Answers

8.25pm Wrap up and close of event

EirGrid

What Shaping Our Electricity Future means for Kildare

Derek Carroll, Future Networks, EirGrid

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Energy Citizens Roadshow

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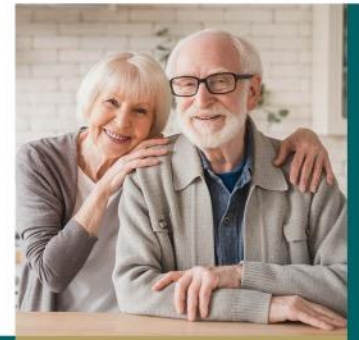


Home Energy Grants and Upgrades

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

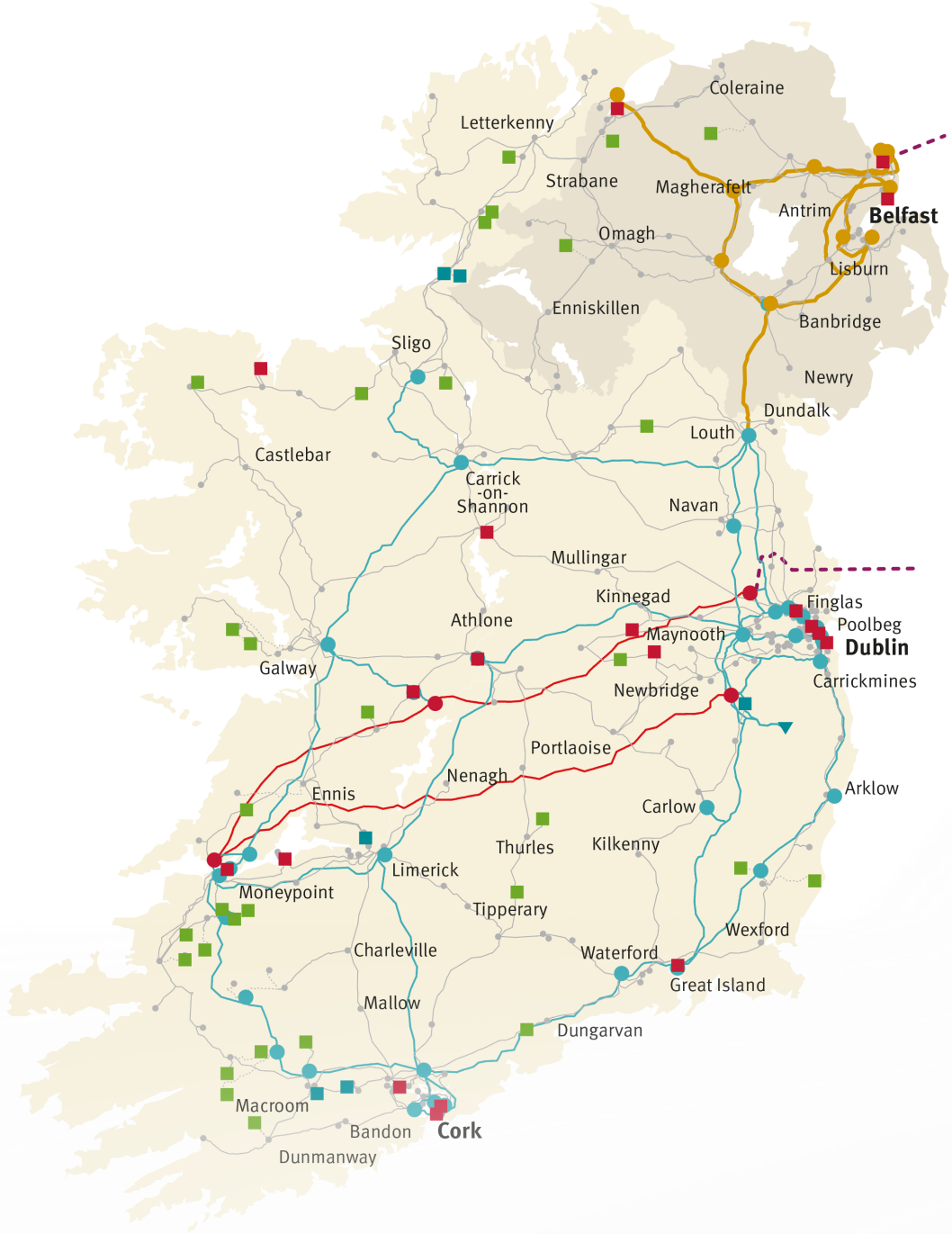
The grid gets into every corner of Ireland, bringing reliable power to homes, farms, schools, hospitals, and businesses.

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

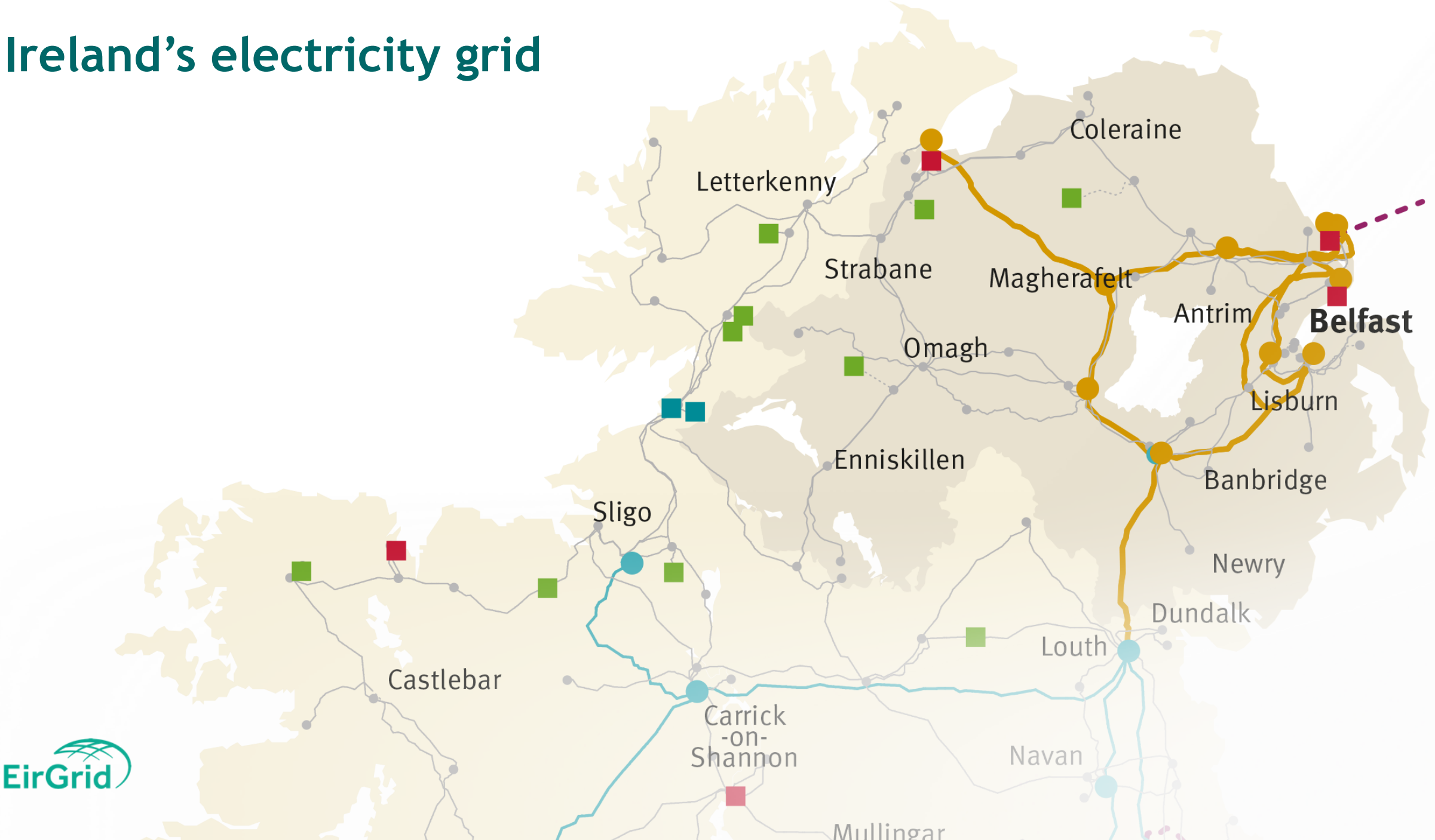
Peak demand during the cold snap last December was 7,031MW.

Electricity is getting greener all the time.

EirGrid



Ireland’s electricity grid



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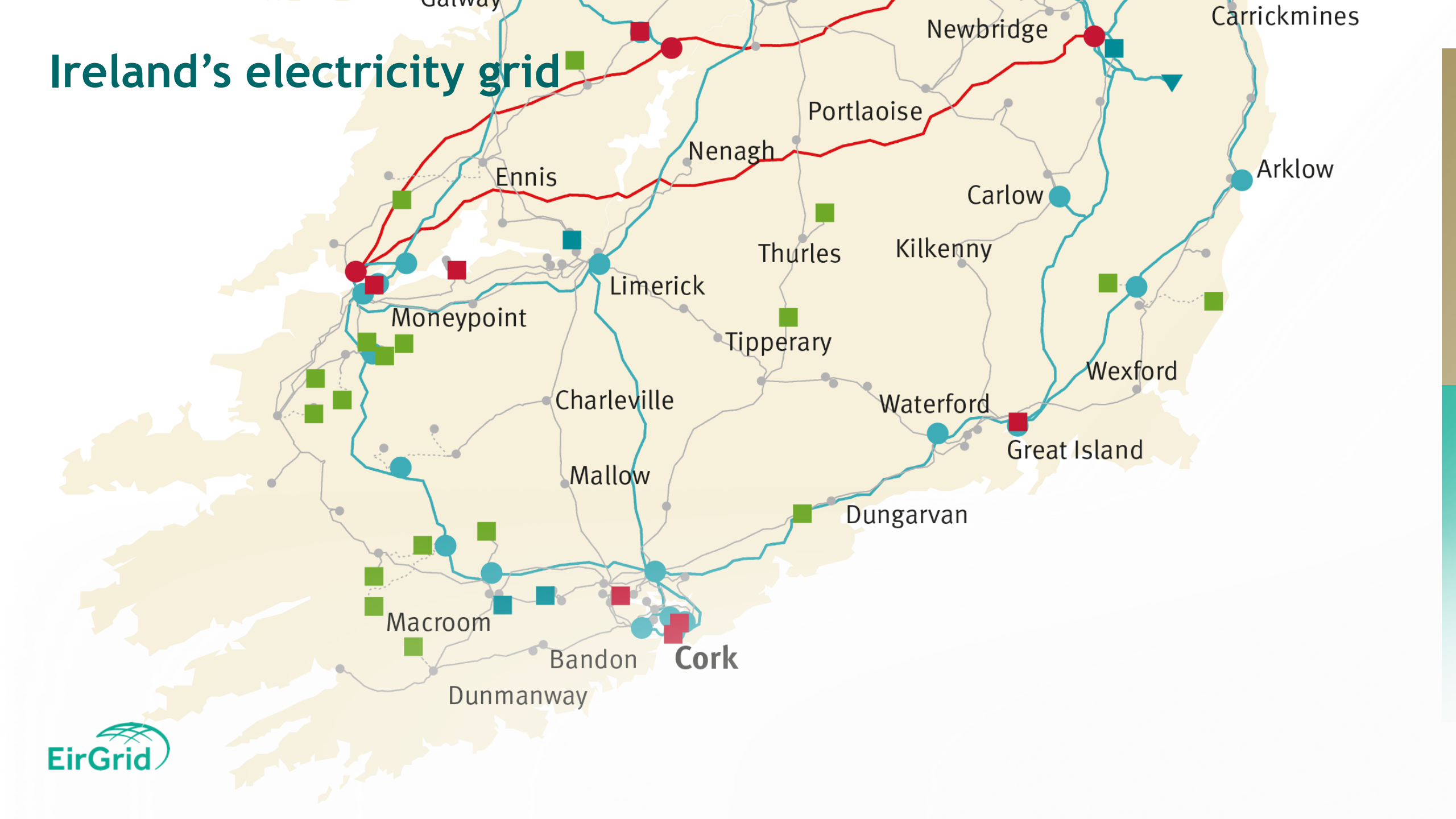
Ireland’s electricity grid



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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**

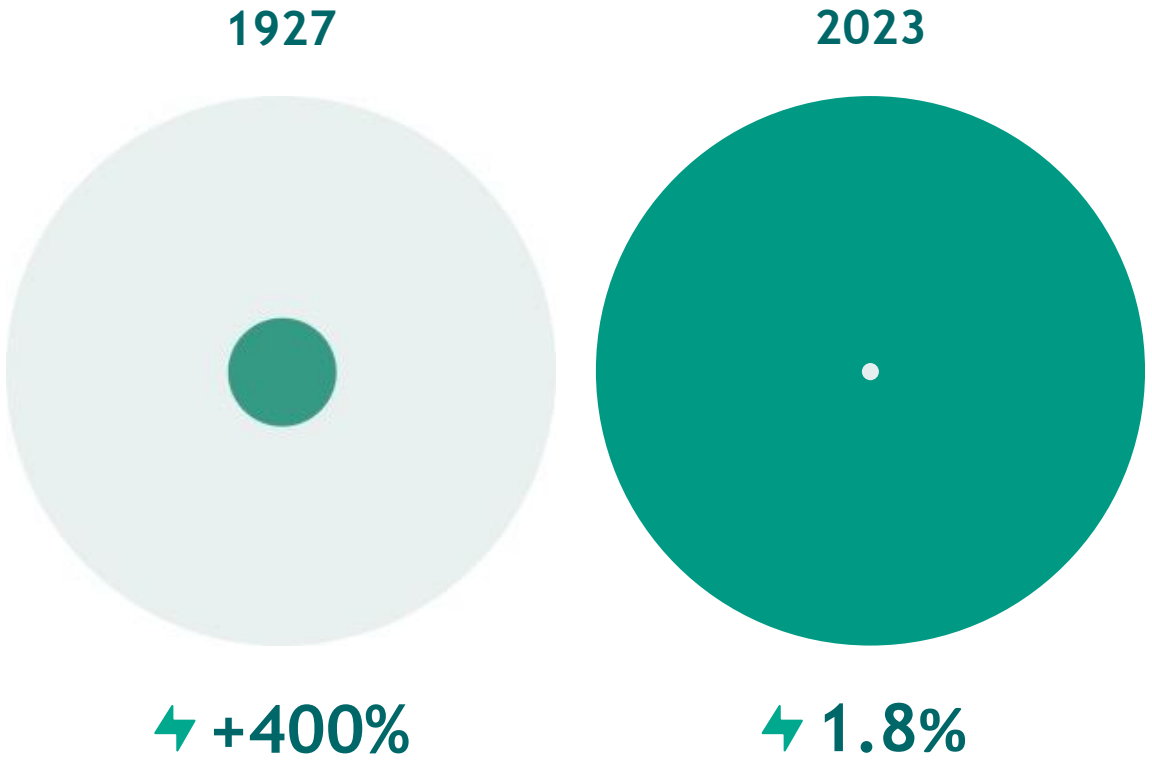
EirGrid

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



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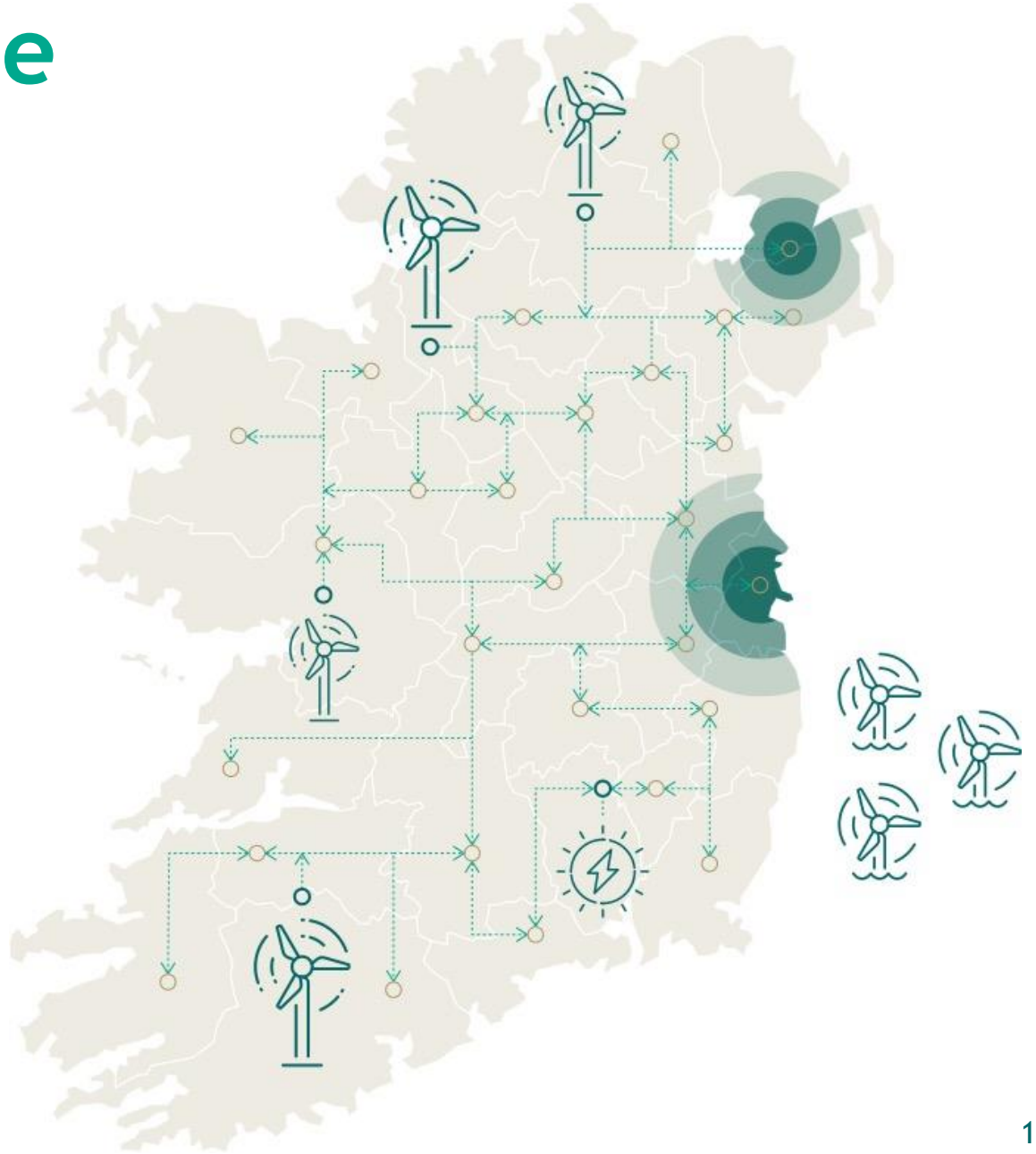
Context for preparing the plan

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

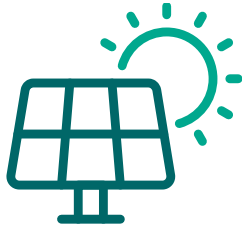
2
Industry Forums

EirGrid

What did the Public say?

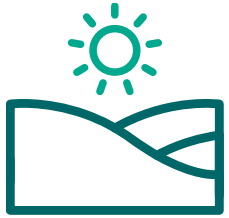
- Onshore-generation
- Security-of-supply
- Public-engagement
- Landowner-concerns
- Ecology
- Environment
- Offshore-wind
- Future-proofing
- New-technology

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

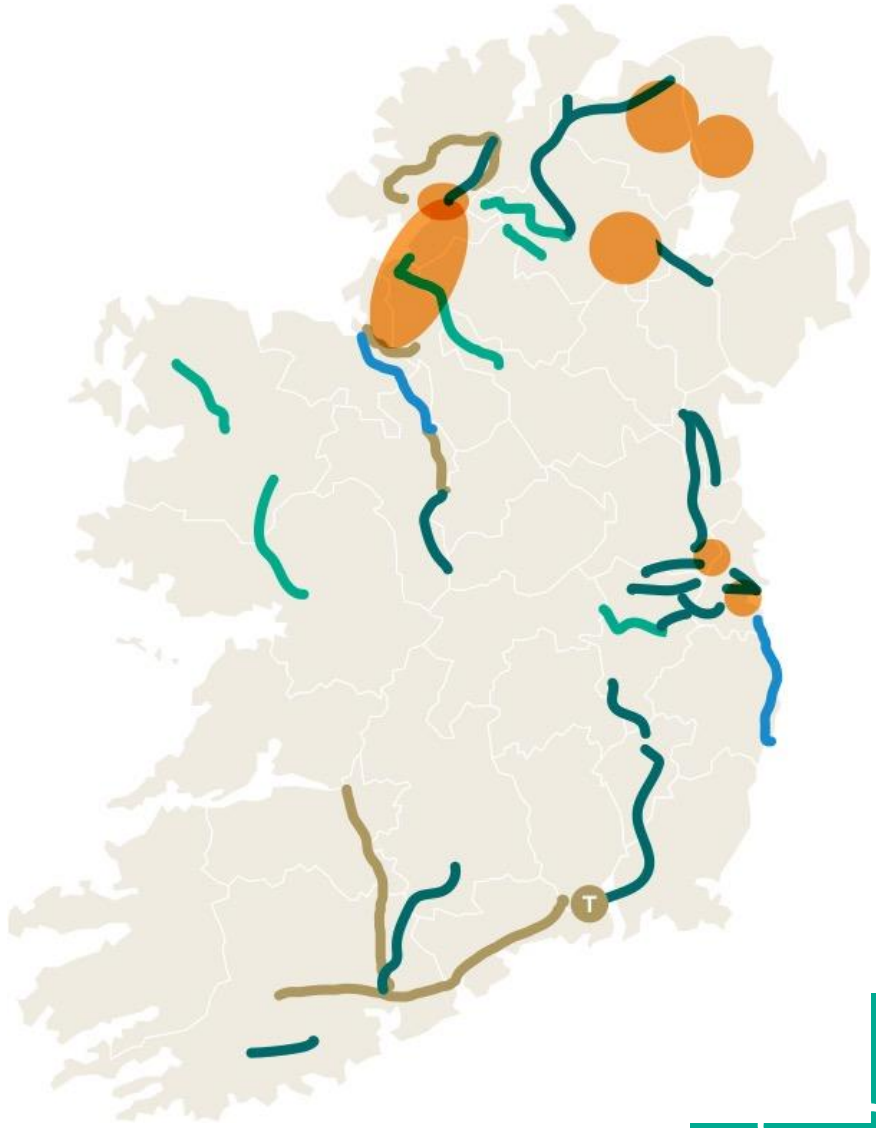
New Projects in Ireland

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

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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.

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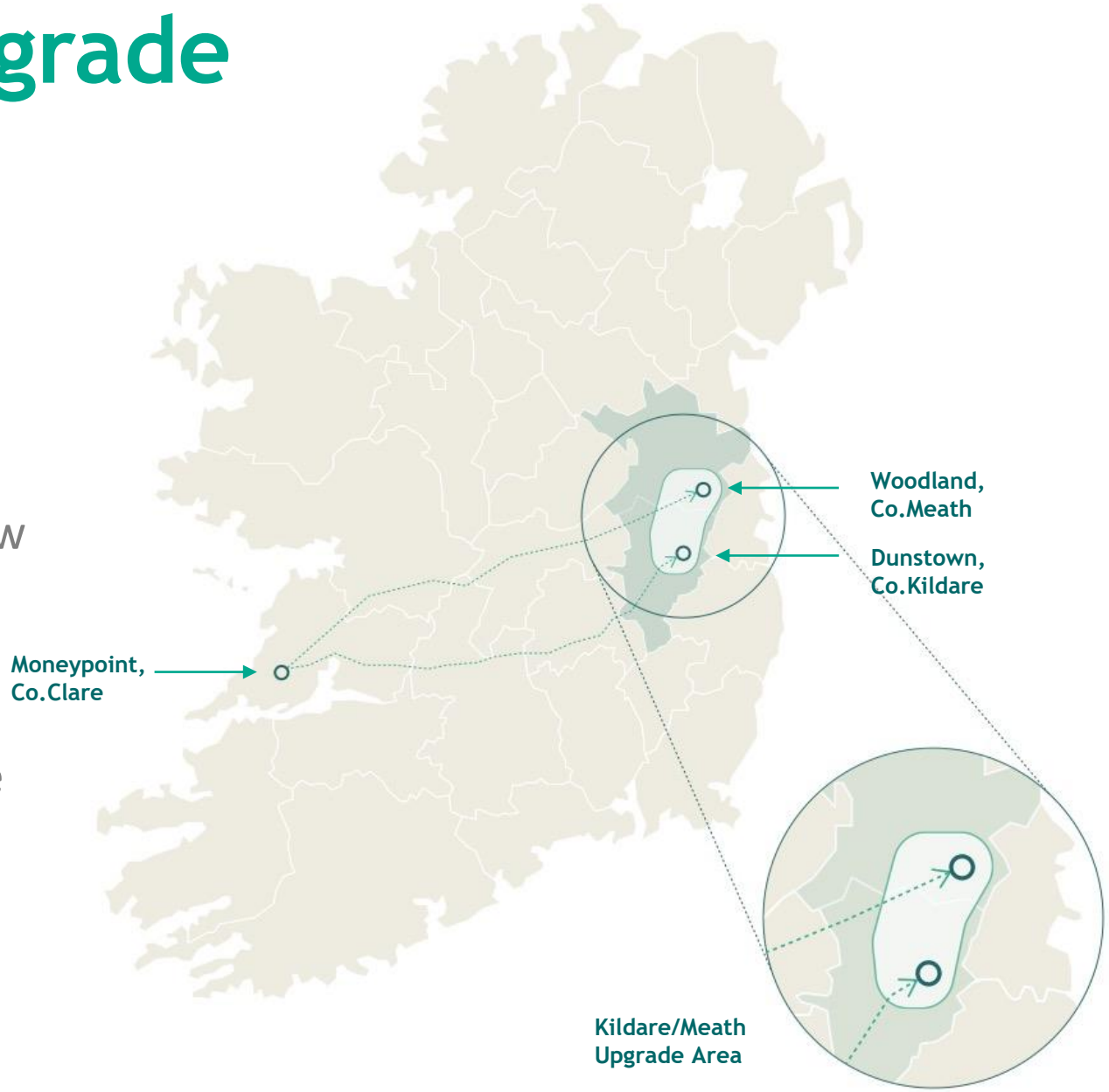
Kildare Meath Grid Upgrade

Power is currently transported across the country on two 400 kV overhead lines from Moneypoint in Co. Clare to **Dunstown** substation in Co. Kildare and **Woodland** substation in Co. Meath.

The **Kildare-Meath Grid Upgrade** will add a new electrical connection between the two substations.

The upgrade will help to transfer and distribute power more efficiently.



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Kildare Meath Grid Upgrade

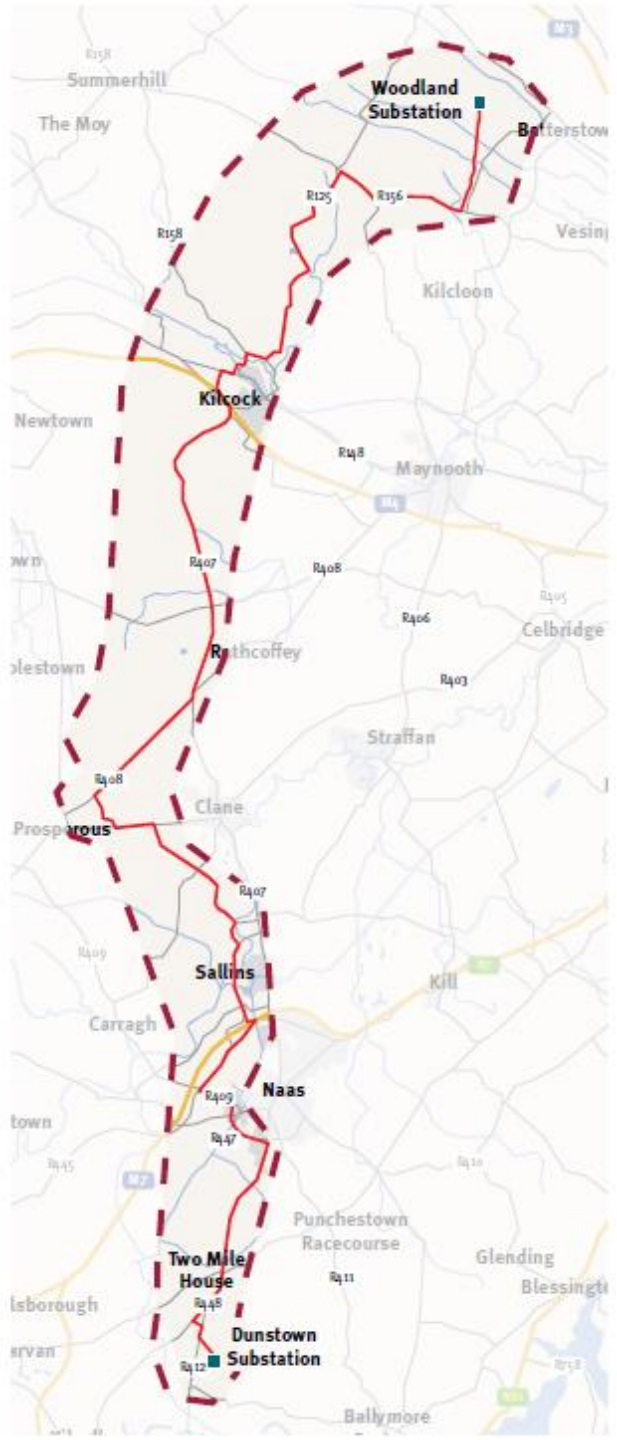
This project is now in Step 5 of our six-step approach to developing the electricity grid Planning Application will be submitted in Spring 2023.

A community forum is in place for ongoing engagement.

Key Statistics

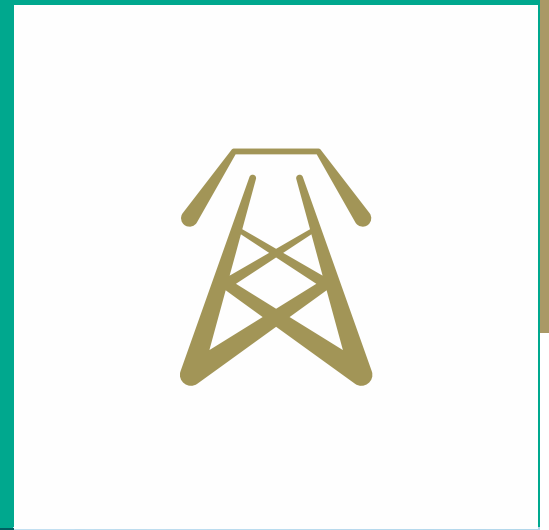
Route Length	53km
Off-Road Sections	8km
River crossings	5: Rye Water, Royal Canal, River Liffey, Grand Canal, and other smaller watercourses
Other major crossings	4: Two railway and two motorway crossings
Construction duration	24 to 32 months*

*This may change depending on further technical assessment



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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EirGrid

National Network, Local Connections

Gerry Noone, ESB Networks

EirGrid

ESB NETWORKS

NATIONAL NETWORK LOCAL CONNECTIONS PROGRAMME

Kildare Energy Citizens, February 2023

ESB Networks

We serve 2.4m Irish homes, farms businesses, as the company licensed to build, operate, maintain and develop the Irish electricity network.

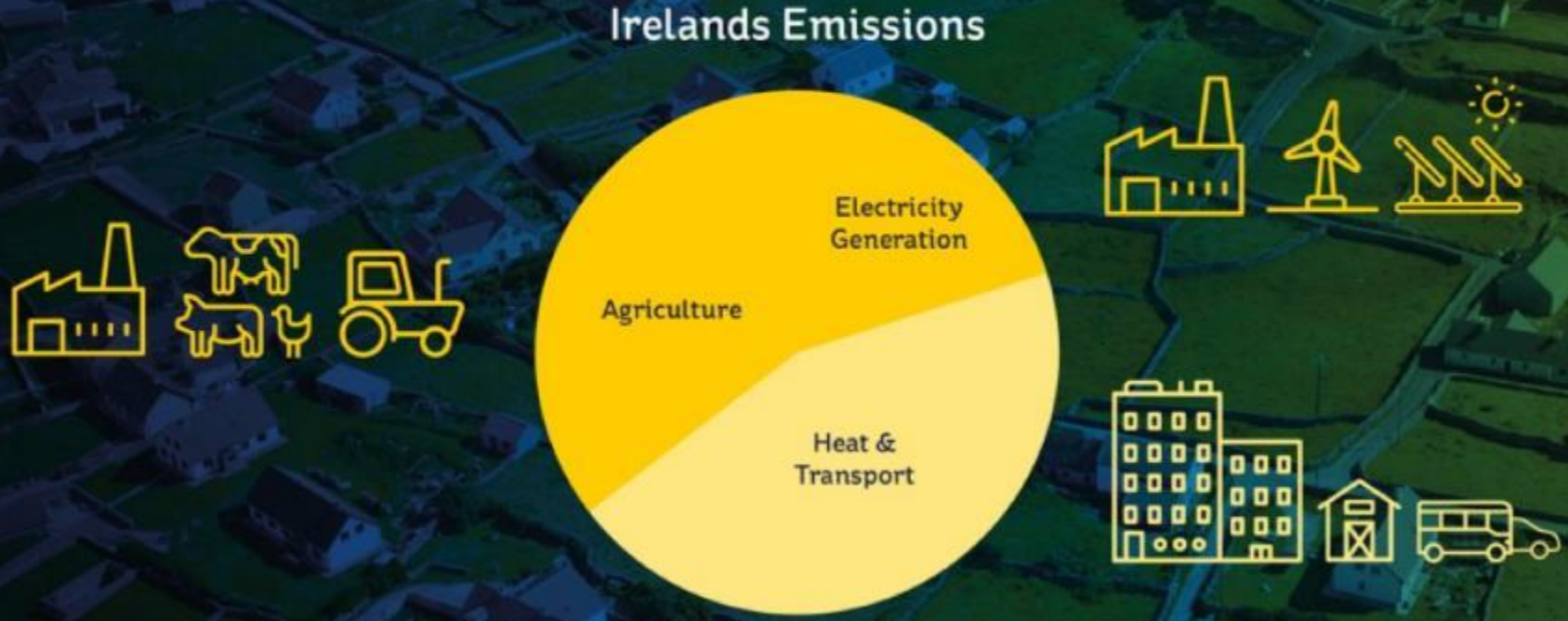
Our countrywide staff of 3,000 people are proud to put every customer first, whatever the electricity supplier.

We build and operate the high, medium and low voltage electricity infrastructure, including distribution stations, overhead lines, poles and underground cables.

We are funded through 'use of system' charges billed to customers via all electricity suppliers. Our prices are set by the Commission for Regulation of Utilities.

SET THE SCENE

Why ESB Networks National Network, Local Connections Programme?



WHAT IS NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME - WHAT IS IT ALL ABOUT ?

Supporting communities (homes, farms, businesses)

to get more form their local connections

+

Rapidly adapting the Network

A network for net zero.

=

2030 Climate Action Targets

What the studies are telling us!

Why?

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

THE NETWORK OF THE FUTURE (2030)

Today

High dependency on fossil fuels & imports

40% renewable electricity

Microgeneration
Minigeneration
Community wind & solar
Electric transport
Heating & home retrofits
Social & economic growth

2030

More resilient, independent & sustainable.

80% renewable electricity

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

Micro-generation

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

The Home & Business of the Future

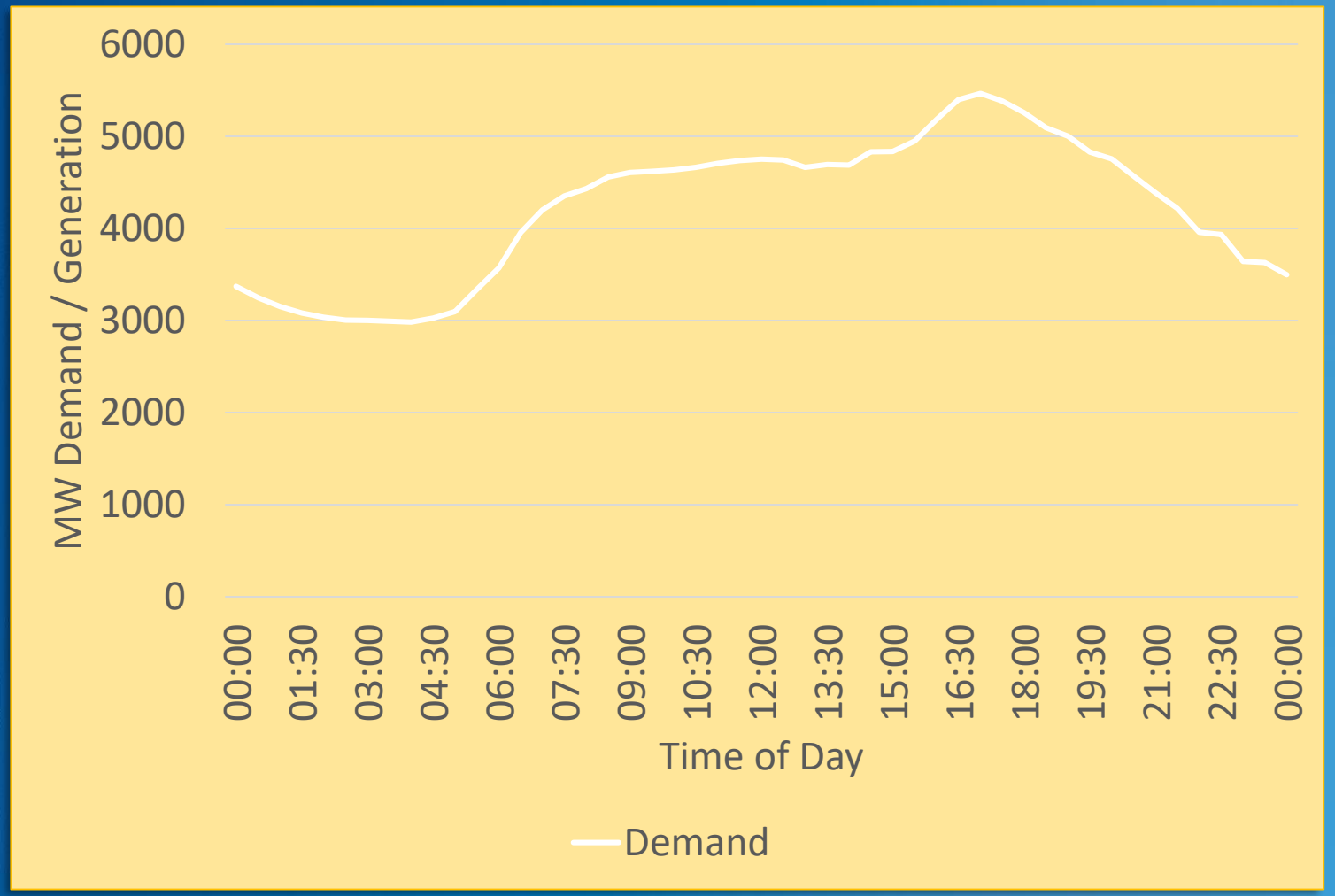
"To meet the required level of emissions reduction, by 2030 we will…ensure that ***20-30% of system demand is flexible by 2030"***

- Rialtas na hÉireann, Government of Ireland November 2021

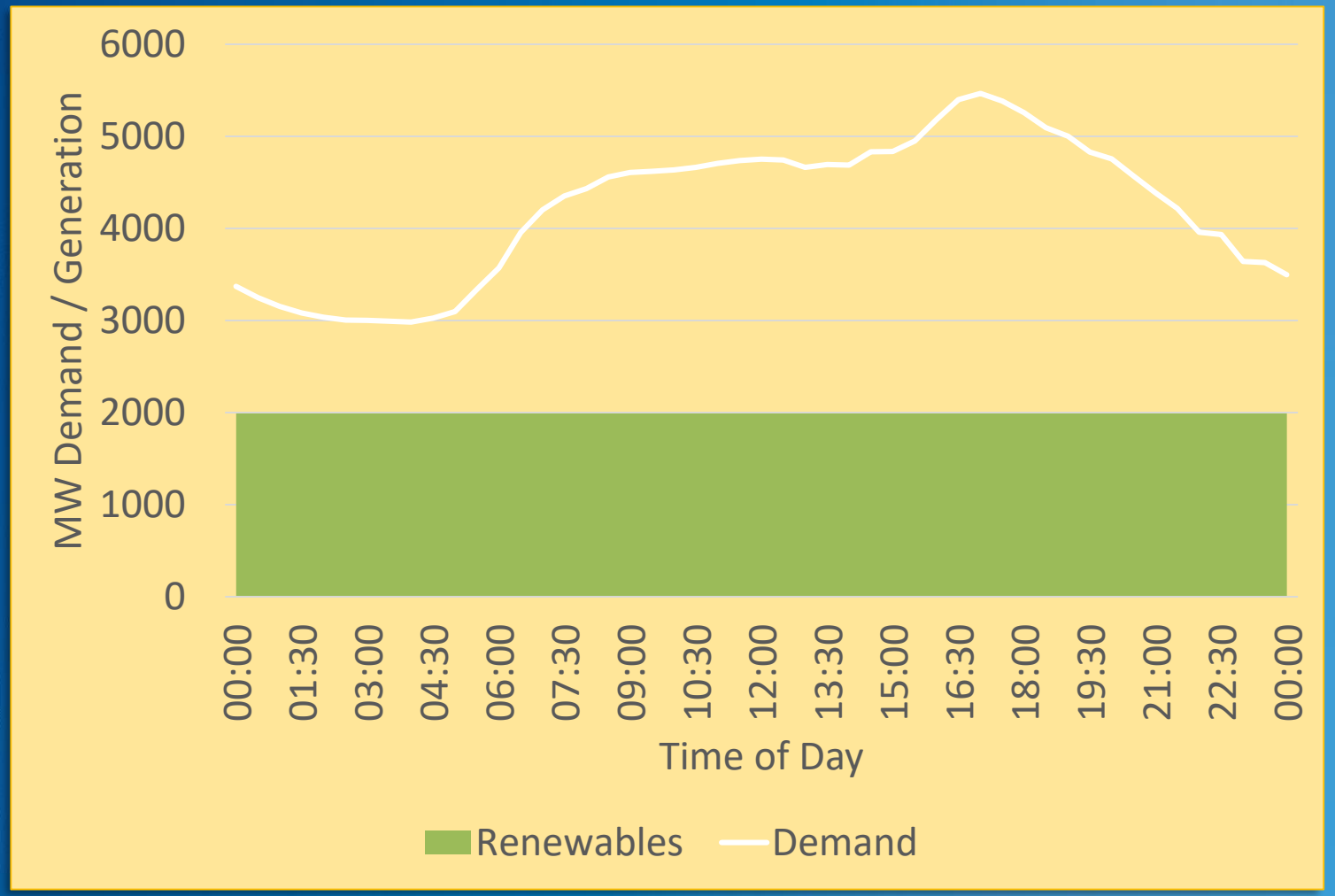
ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

Why it matters !



Why it matters !



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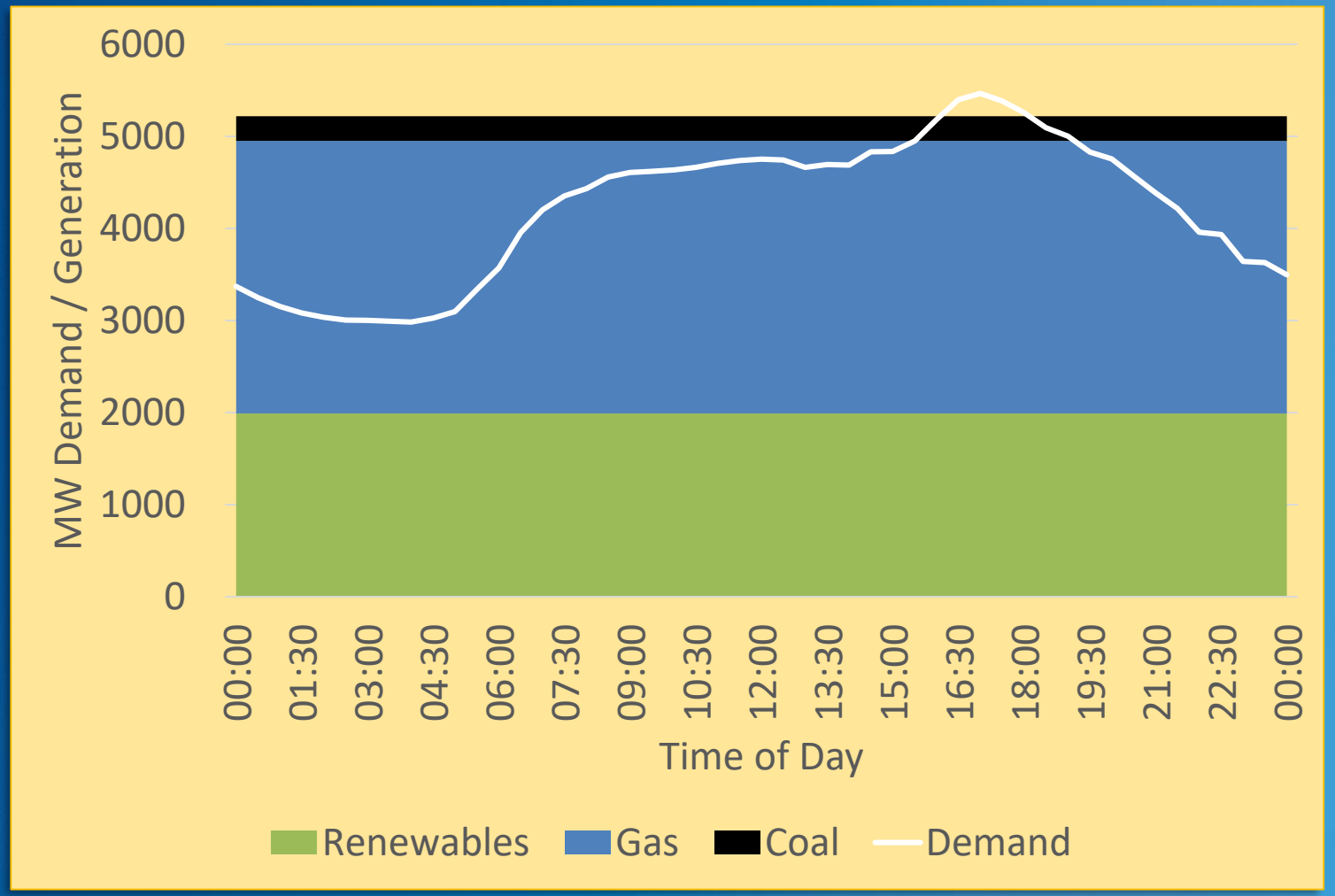

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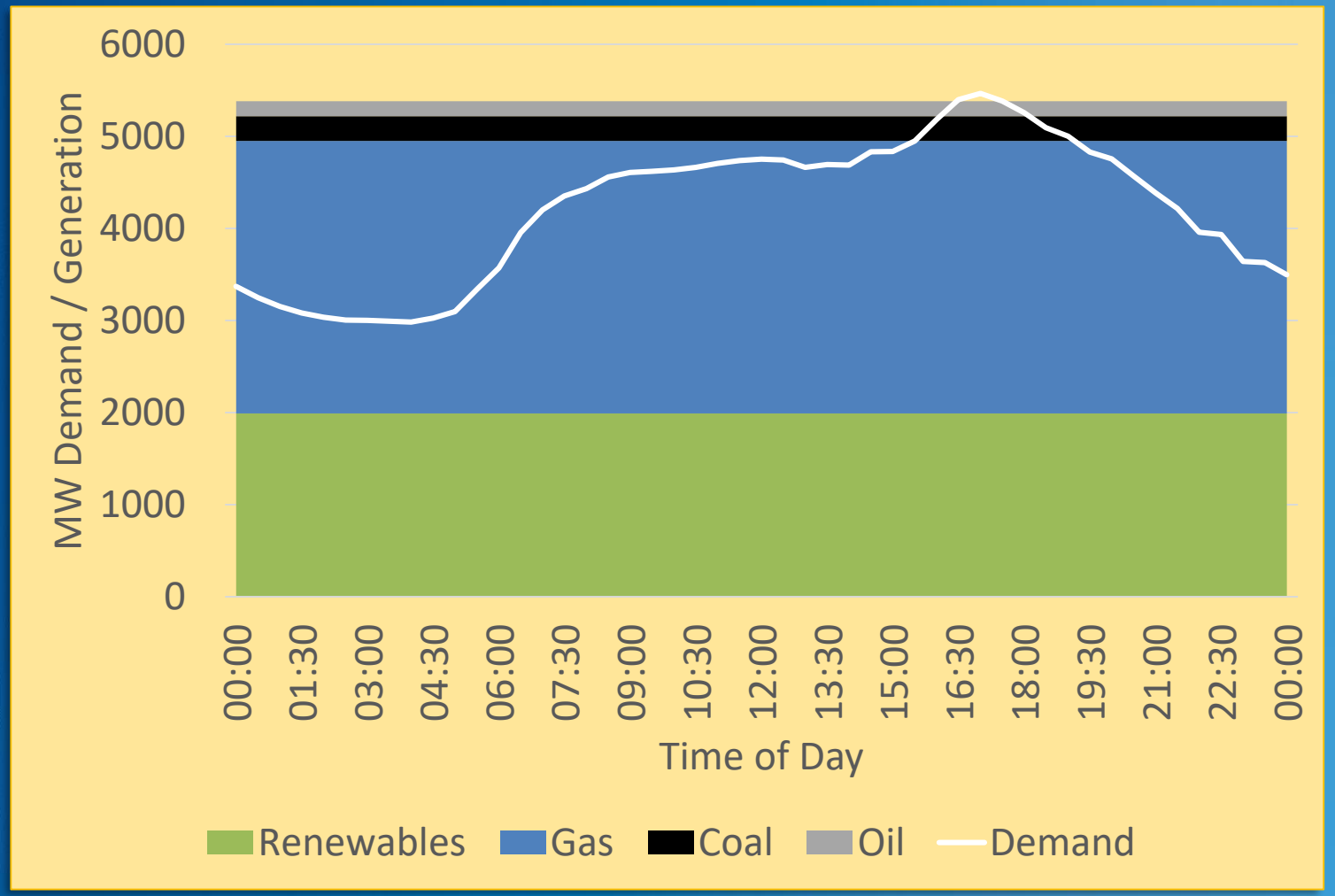

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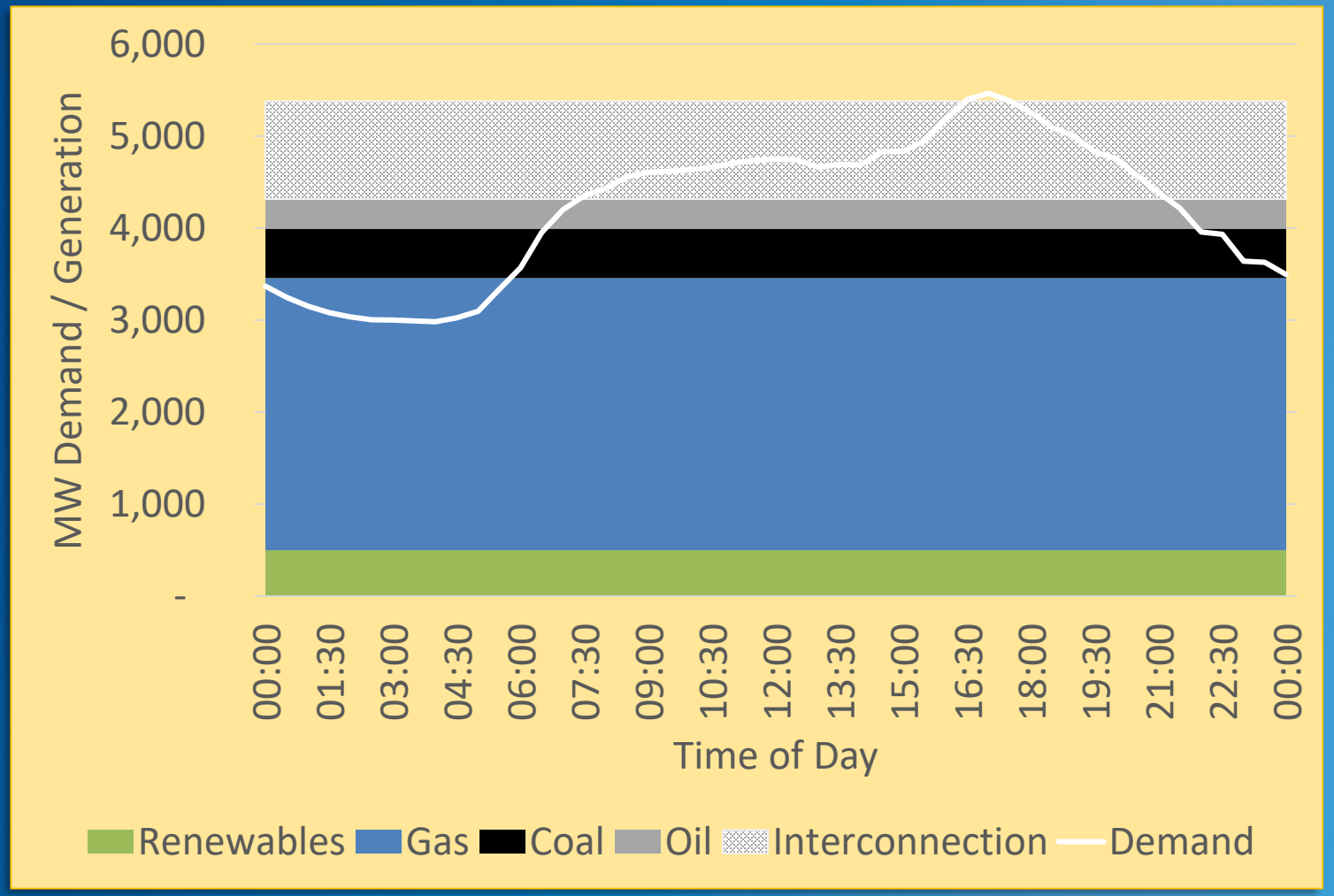
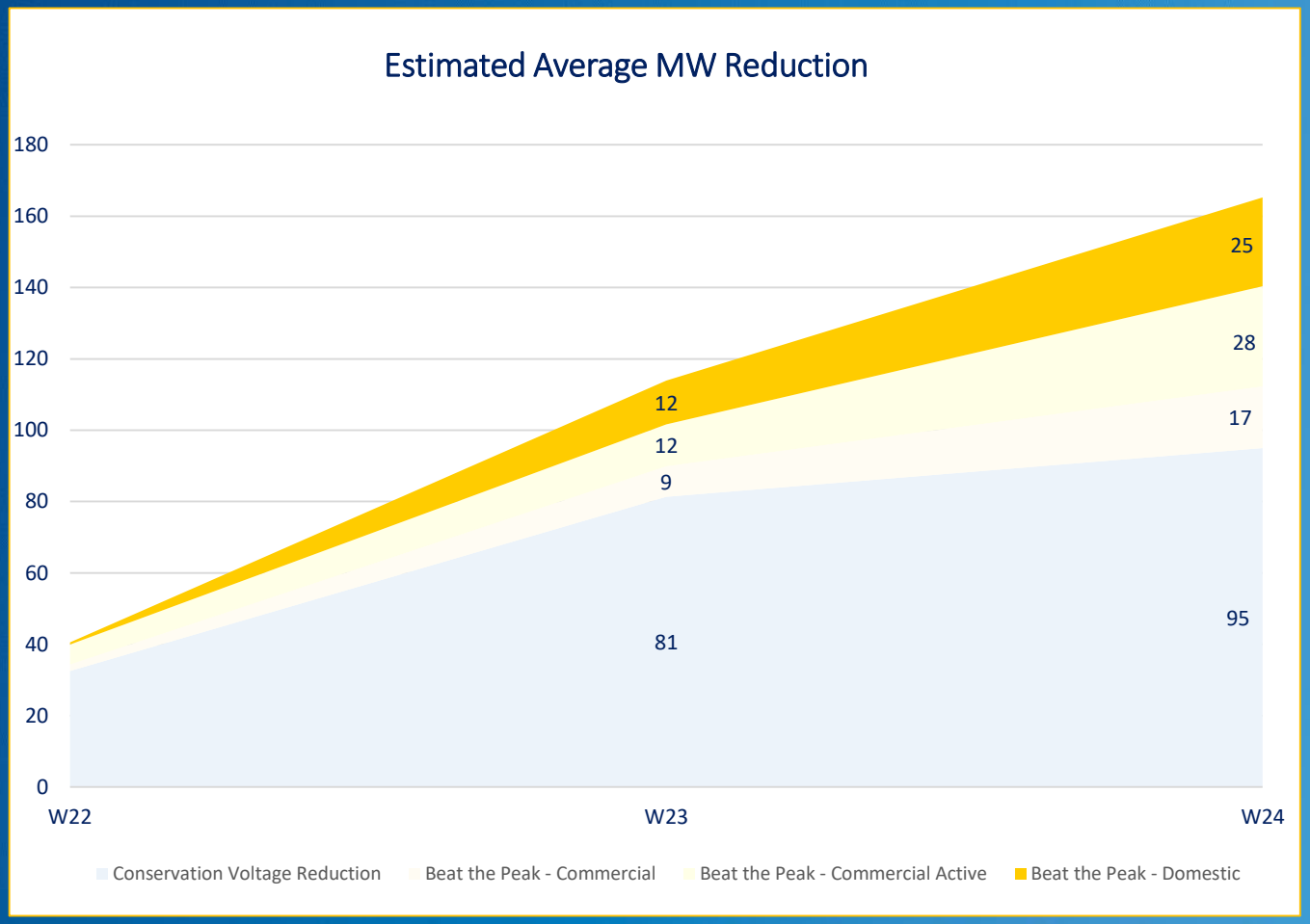


“Is this a good time?”



What can we do? Make it personal!

01

Sign Up to the 'Is This a Good Time' pilot

This pilot is open to all domestic customers regardless of their electricity supplier. Upon registration you will be given the information and useful tips on how to take control of your electricity usage at home, and will have the option to opt-in to support in times of peak events (amber alerts).

Sign up at **esbnetworks.ie/pilot** and encourage others to sign up too.

02

Have your organisation sign up to the Commercial Pledge pilot

Open to small, medium and large commercial, semi-state & public sector entities, that if sign up, will be asked to commit to a number of 'pledged' actions that they can implement in their organisation to reduce their electricity demand at peak times 5-7pm.

Learn more about the **Commercial Pledge** pilot at **esbnetworks.ie**

03

Have your organisation sign up to the Commercial Active pilot

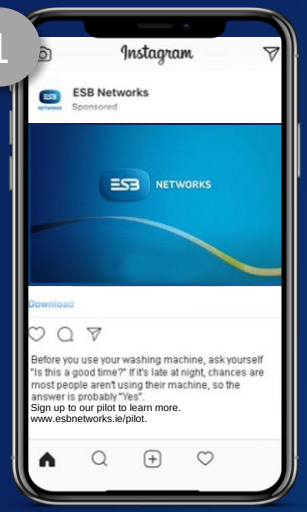
Open to organisations that use high energy consumption, that meet certain criteria. A financial incentive will be available for organisations that participate in this pilot.

Learn more about the **Commercial Active** pilot at **esbnetworks.ie**

How does it work? | "Is this a good time?"

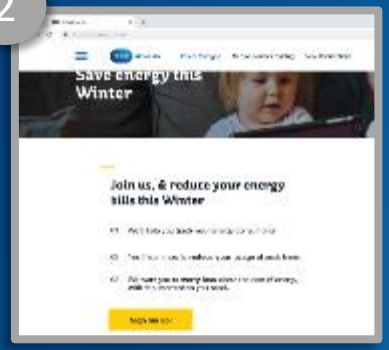
Beat the Peak Domestic

1



Awareness – Customers made aware of the pilot with a cross-channel campaign.

2



Sign up – Customers will be encouraged to be part of the pilot scheme.

3

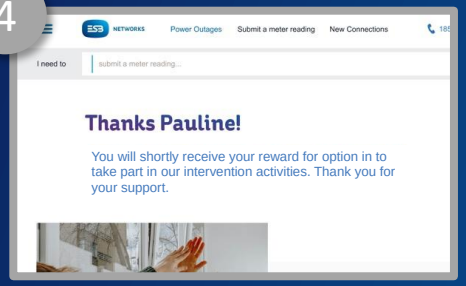
As a dishwasher owner now is a good time to pop on that wash: it's windy!

Did you know that slow cooker or microwave use far less energy than the oven.

In a rush? Air fryer or grill cook use 30 – 60% less energy than the oven

Education – Customers will receive contextualised hints and tops to increase knowledge and encourage action

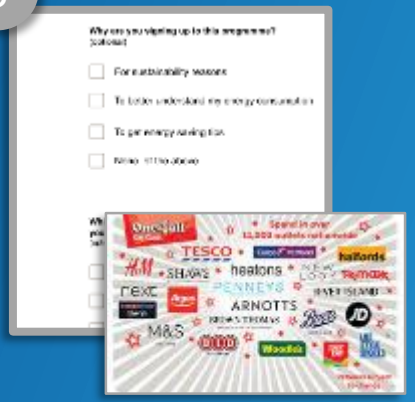
4



Customers can sign up to participate in peak events. They will receive a reward (financial, pro-social, community), and asked for more information on their lifestyle & preferences.

During peak events, they will be prompted to act.

5



Customers will be asked to provide feedback on their experience, and share how they acted.

Customers receive their personal of pro-social reward for participating.

Images/text are for illustration purposes only

Make it personal!

In the kitchen

Living & Working

In the bathroom

In the utility room

Beat the Peak Domestic | ‘Is This a Good Time?’ pilot

- Focuses on ‘Peak Times’

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

SEAI Supports for Communities and Households

Emer Conway, SEAI

EirGrid

Emer Conway
Community Energy Mentor
Kildare

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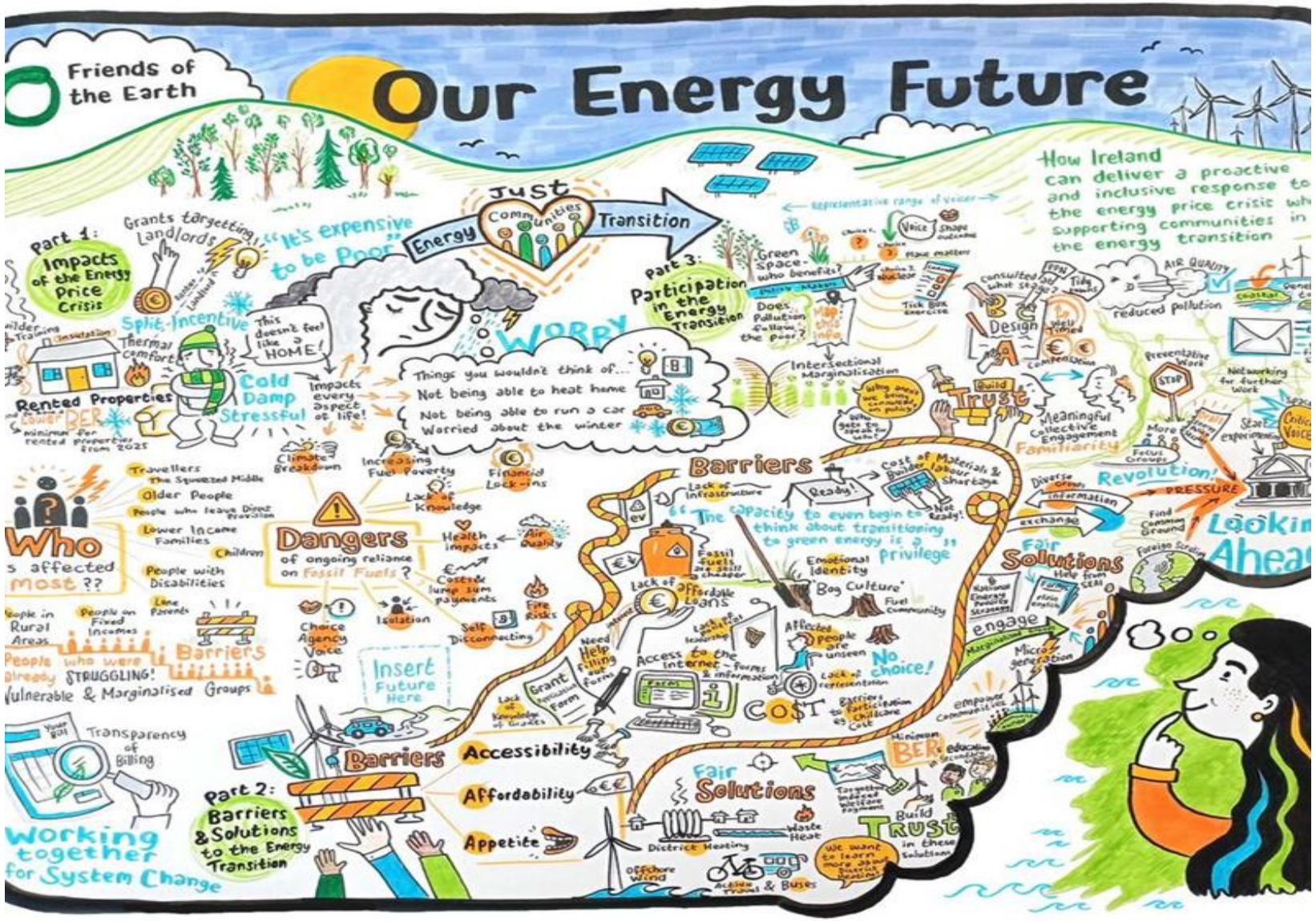

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Creating a Cleaner Energy Future

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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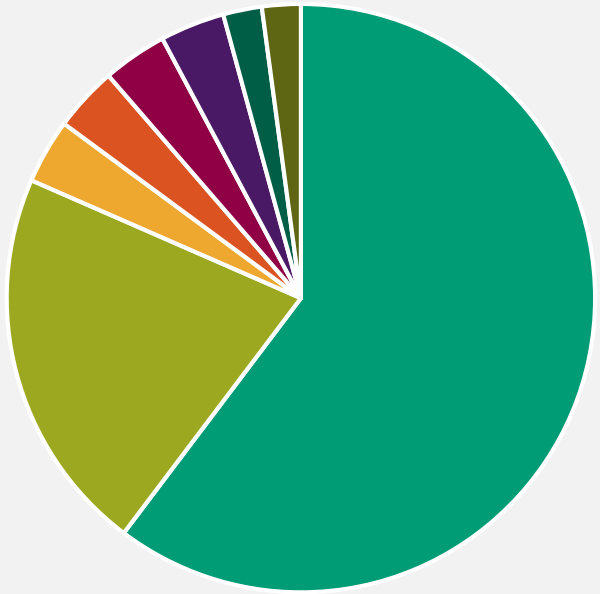
Home Heat Loss and Energy Use

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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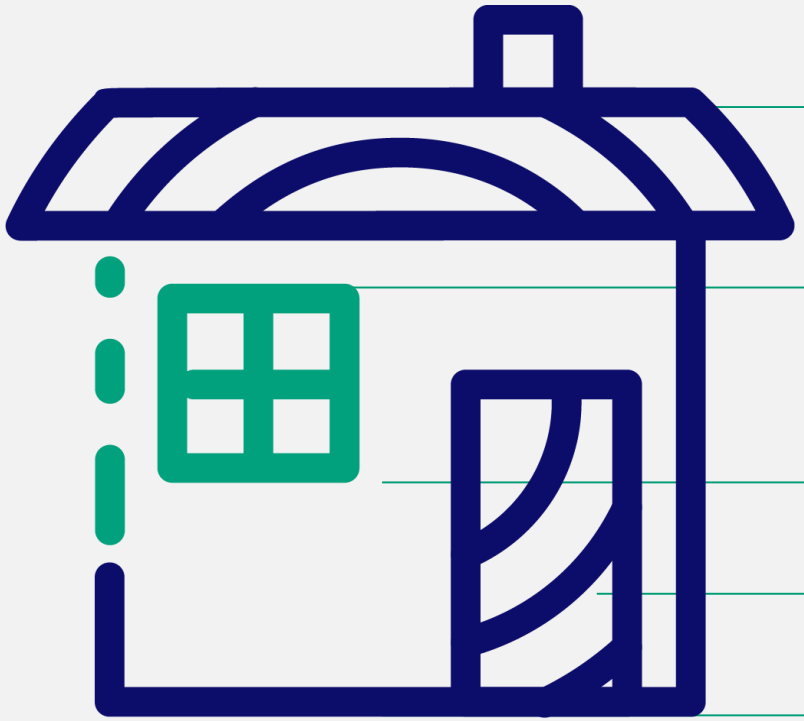
Home Heat Loss and Energy Use

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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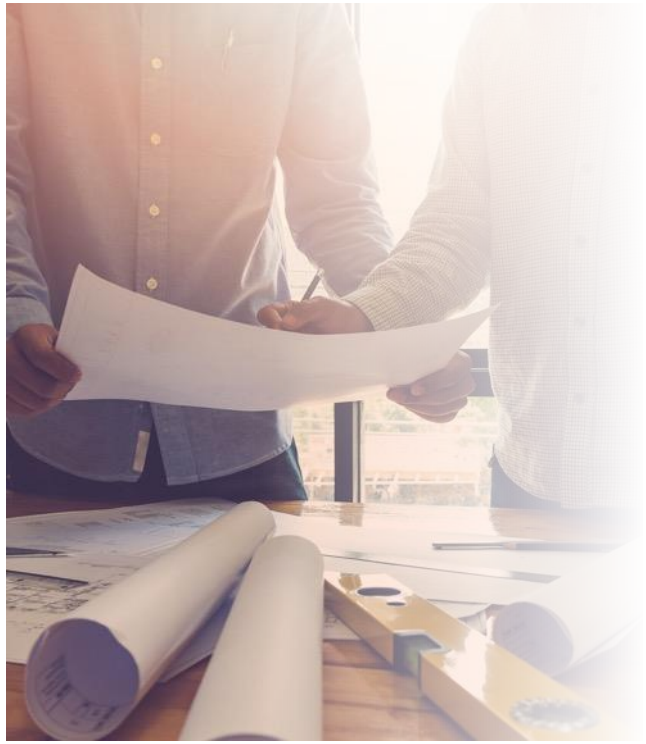
Three Steps to a Home Energy Upgrade

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

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.

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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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Free Energy Upgrades

- Delivering free energy upgrades to qualifying homeowners who are in receipt of one of the following:
  - Fuel Allowance
  - One parent family payment
  - Family income supplement
  - Domiciliary care allowance
  - Jobseeker's allowance > 6 months & child under 7
  - Carer's allowance and lives with the person being cared for
- Fully funded and fully managed by SEAI through a panel of contractors
- Carry out a Home Assessment to determine the upgrades needed
- Assign a contractor to complete works
- Carry out a follow up BER
- Homes must be built and occupied before 2006 to be eligible

One Stop Shop Service

- A complete home energy upgrade solution for homeowners and landlords
- Supports multiple energy upgrades in one go to achieve a minimum B2 BER rating
- Offers a wider range of grants offering up to 50% of the cost of works
- To pay for the works net of the eligible grant
- Fully managed solution from start to finish;
  - Home Energy Assessment
  - Contractor works
  - Grant application
  - Follow up BER
- To carry out a minimum number of energy upgrades and achieve a minimum B2 BER
- Homes must be built and occupied before 2011 to be eligible
- Choose from the list of registered one stop shops on the SEAI website: www.seai.ie

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Individual Energy Upgrade

- For homeowners and landlords who want to manage their own project
- Range of individual energy upgrade grants for insulation, heating and renewable technologies covering up to 50% of the cost of works
- Manage the grant application and works themselves
- Pay for the cost of works and claim the grant afterwards
- How to apply:
  - Choose your energy upgrade and grant
  - Select your SEAI registered contractor
  - Submit your grant application – must have grant approval before works commence
  - Get works done – 8 months to complete works and claim grant from date of approval
  - Submit you grant payment request – 4 to 6 weeks for payment
- Homes must be built and occupied before 2011 for insulation and heating controls, and before 2021 for renewable systems

Communities Grant

Assisting energy efficiency community projects through capital funding, partnerships, and technical support.

- Community oriented with a cross-sectoral approach, and you must show that you can sustainably finance the proposed project
- Encouraging smaller projects from €50k to large projects up to €5m
- Grant values range from 35%, to 80% for fuel poor homes
- 2020: Delivered 25 projects with funding of €18.5m. Upgraded 656 residential buildings to a minimum B2 rating and upgraded 240 non-residential

Community energy

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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Benefits of Sustainable Communities

Changing our energy use creates one of the biggest impacts for sustainability and the environment. Acting together means this impact goes even further

We can reduce energy bills in the community by doing local energy projects. This means we free up more money to spend in the community in the longer term.

Community energy projects mean warmer, healthier homes and community buildings. It improves quality of life, especially for the vulnerable in the community.

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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

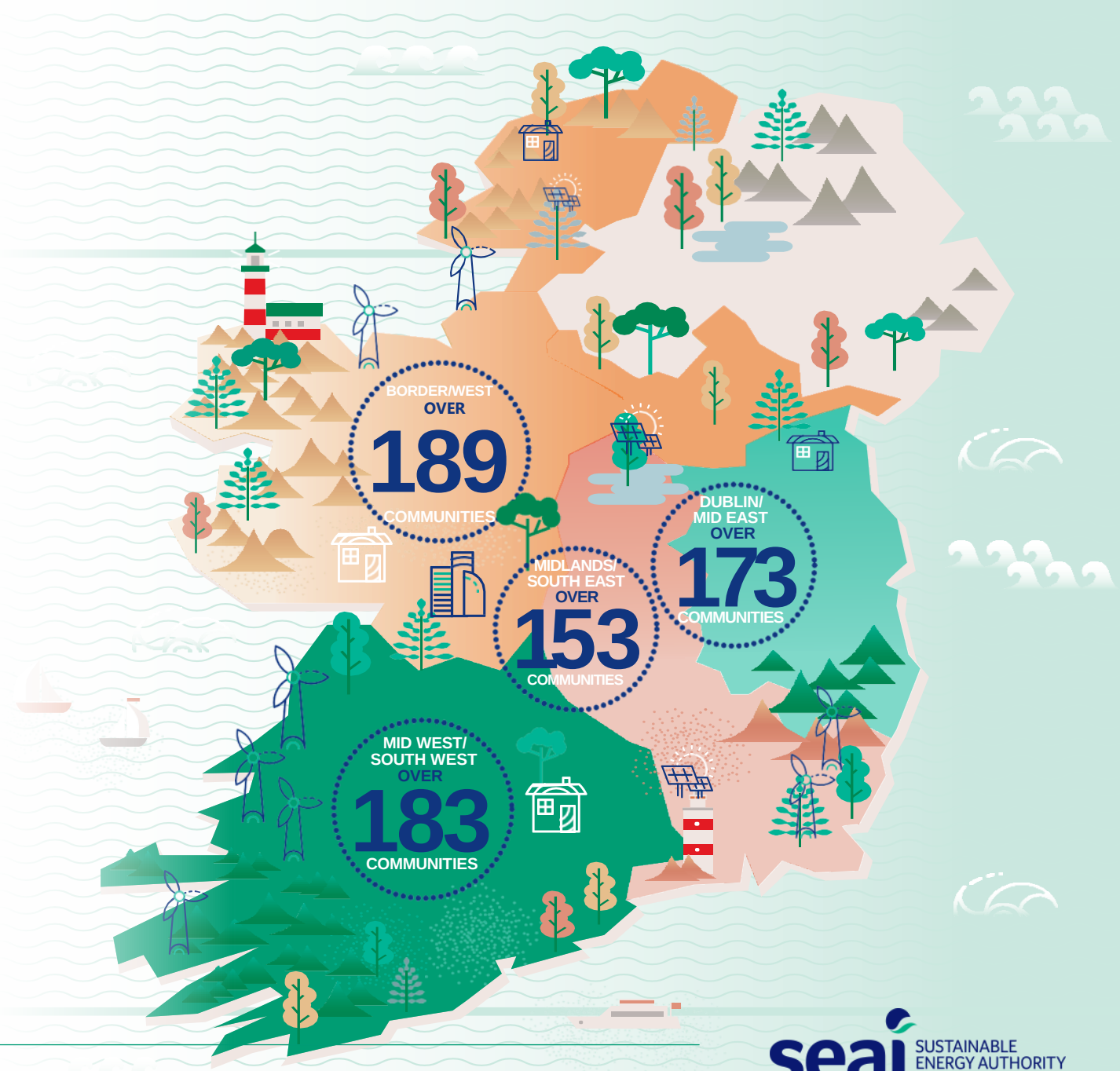
MORE THAN
35,000
CITIZENS ENGAGED

90 ENERGY MASTERPLANS COMPLETED

80
COMMUNITIES

Are currently working on their Energy Master Plans

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



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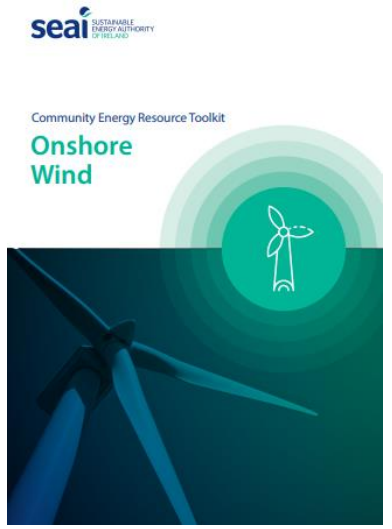
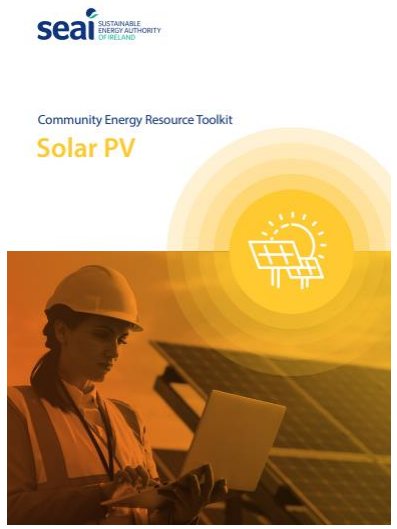
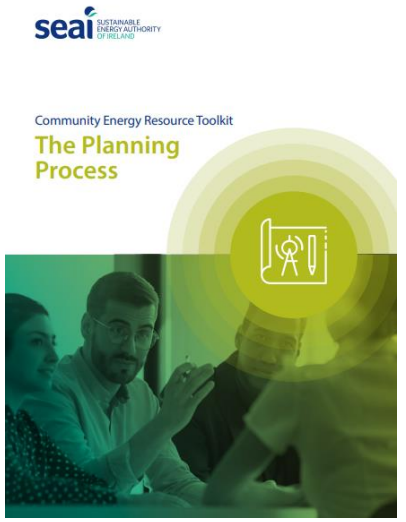
Renewable Energy Support Scheme

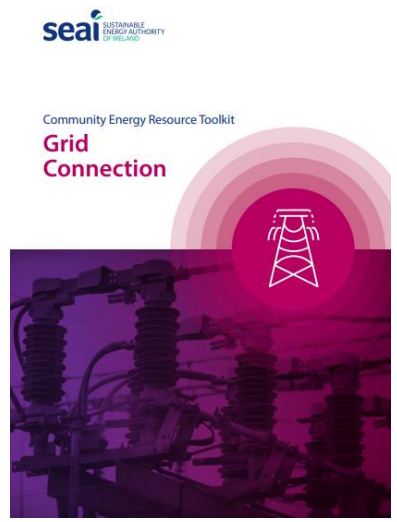
New Government scheme to support the development of renewable electricity projects in Ireland

- 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**









Opportunities for Local Businesses

Allan Shine, County Kildare Chamber

County Kildare Chamber

Advancing business together

EirGrid Energy Citizens Roadshow

Allan Shine
CEO, County Kildare Chamber

County Kildare Chamber

Advancing business together

400+ MEMBERS

- Largest Business Organisation in Mid East.
- 400+ members employing 42,000 people.

HERE FOR BUSINESS

- Registered Lobbyist
- Start Ups
- Small - Medium sized businesses
- Multi-National Companies

100+ EVENTS

- 100+ events per year including workshops, training days, exhibitions, business breakfasts, golf classics, kildare business awards etc

TRADE VISITS

- Brussels
- Scotland
- Boston
- Dubai

I HUB

- Innovation hub in Chamber head office to support high potential start up businesses.

Chamber Representation

Chambers Ireland Board Allan Shine	**International Chamber of Commerce Taxation Committee** Mairéad Hennessy	**Mid East Regional Enterprise Plan** Sinéad Ronan	**Mid East Regional Skills Forum** Sinéad Ronan	**Maynooth University Advisory Board** Allan Shine	**Kildare Local Community Development Committee (LCDC)** Sinéad Ronan	**EirGrid Community Forum** Allan Shine
Kildare County Council Climate Strategic Policy Committee Sinéad Ronan	**Kildare County Council Community & Cultural Strategic Policy Committee** Maureen Bergin	**Kildare County Council Environmental Services and Water Strategic Policy Committee** Evan Arkwright	**Kildare County Council Economic Strategic Policy Committee** Gerry Prendergast	**Kildare County Council Road & Transportation Strategic Policy Committee** Brian Purcell	**Allenwood Community Development Association (ACDAL)** Allan Shine	**Kildare Leader Programme** Noel Dempsey
County Kildare Community Network (MERITS) Allan Shine	**Naas Town Team** Sinéad Ronan	**Athy Sláintecare Local Implementation Group** Sinéad Ronan				

Chambers Ireland Sub groups

- Policy Sub Committee - Sinéad Ronan
- Sustainability Council - Sinéad Ronan
- Skills & Talent Taskforce - Dave Merriman
- Decarbonisation Taskforce - Domnick Ward
- Urbanisation Taskforce - Sinéad Ronan

Ireland’s first business climate challenge

COUNTY KILDARE CHAMBER
SUSTAINABLE KILDARE
PROJECT SPONSORED BY INTEL

SUSTAINABLE DEVELOPMENT GOALS

Lobbying

- EV points for all new house builds.
- Accelerated rollout of EV charge points in regional towns/cities outside of Dublin.
- Solar panel grants for business.
- BIK reform for electric vehicles.
- Tailored professional funding support for business.
- Tax saver flexi tickets for hybrid commuters.
- Proposal to expand R&D tax credit to encourage innovation in green technology, regarding expenditure in wind, solar, hydro or biomass energy.
- Working with all of our stakeholders to encourage sustainable development within our towns and cities.

Business Engagement ‘23

- Bespoke training.
- Partnership with EirGrid, Irish Water, GNI…
- Sustainability Council.
- Continued engagement with Kildare PPN.
- Maynooth De-Carbonisation Zone Plan.
- Continued work & engagement with Kildare County Council.
- Continued Gov. lobbying.

County Kildare Chamber

Advancing business together

Thank You!

Contact:
Allan Shine
CEO, County Kildare Chamber
Allan@countykildarechamber.ie
045 894 074

Questions and Answers

Wrap up