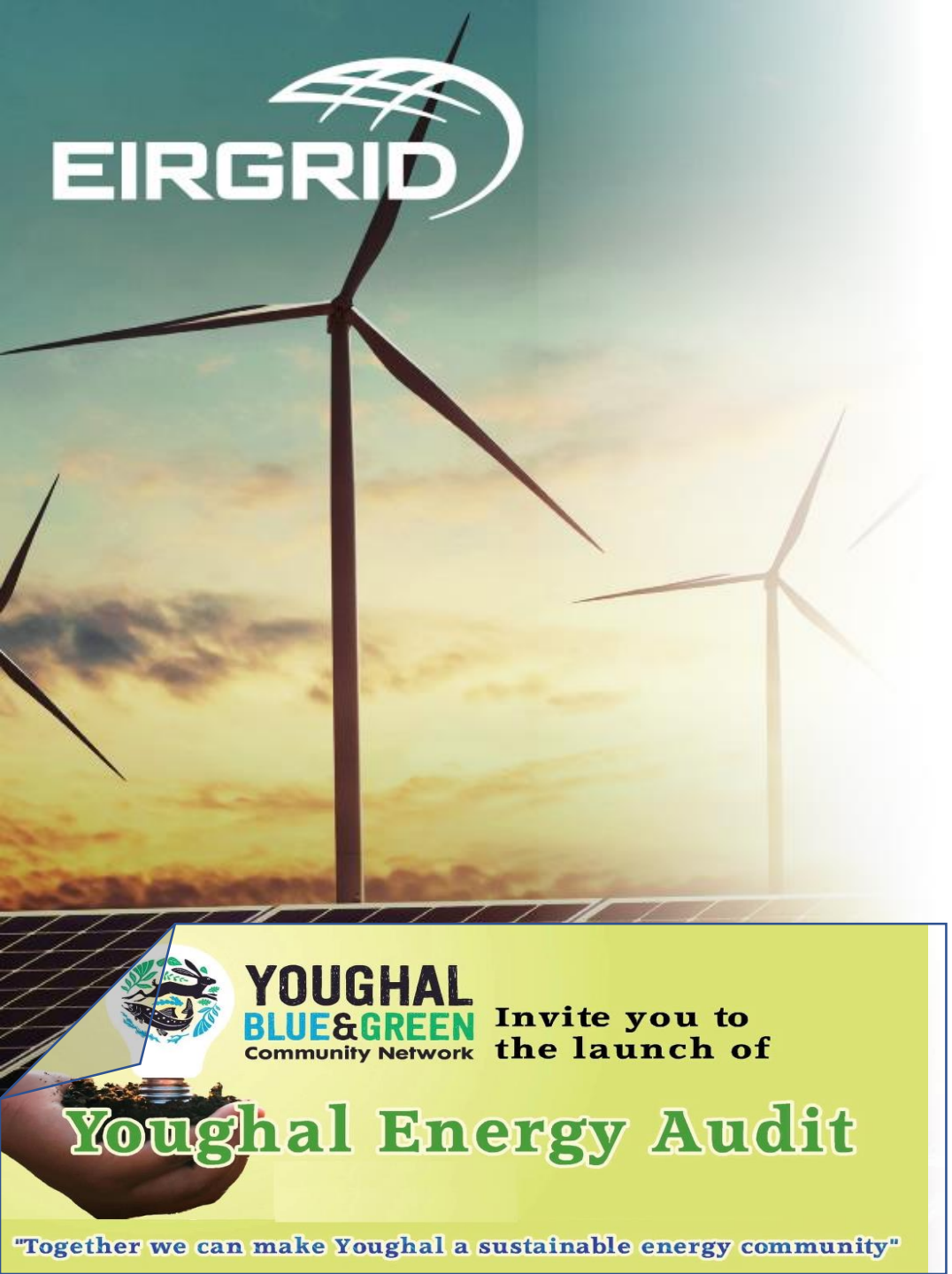


EirGrid

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

EirGrid
Energy Citizens Roadshow

Open and Welcome

Maria Power

Youghal Blue and Green Community Network

EIRGRID

EirGrid

Energy Citizens Roadshow

Overview of this evening

Damien Tiernan

Master of Ceremonies

EIRGRID

EirGrid

Energy Citizens Roadshow

- **7.00pm** Open and Welcome
  Maria Power, *Youghal Blue & Green Community Network*
- **7.05pm** Overview of Event and Introduction of the Panel
  Damien Tiernan, *Master of Ceremonies*
- **7.10pm** What Shaping Our Electricity Future means for Cork,
  Shane Cooney, *EirGrid*
- **7.20pm** National Network Local Connections Programme,
  Gerry Noone, ESB Networks
- **7.30pm** SEAI Supports for Communities and Households,
  Conor O'Brien, SEAI
- **7.45pm** Youghal Energy Audit,
  Ryan Madden, Plan Energy
- **8.00pm** Questions and Answers
- **8.30pm** Next steps for Youghal Energy Audit
  Connor McGookin
- **8.35pm** Wrap

EIRGRID

YOUGHAL BLUE&GREEN Community Network

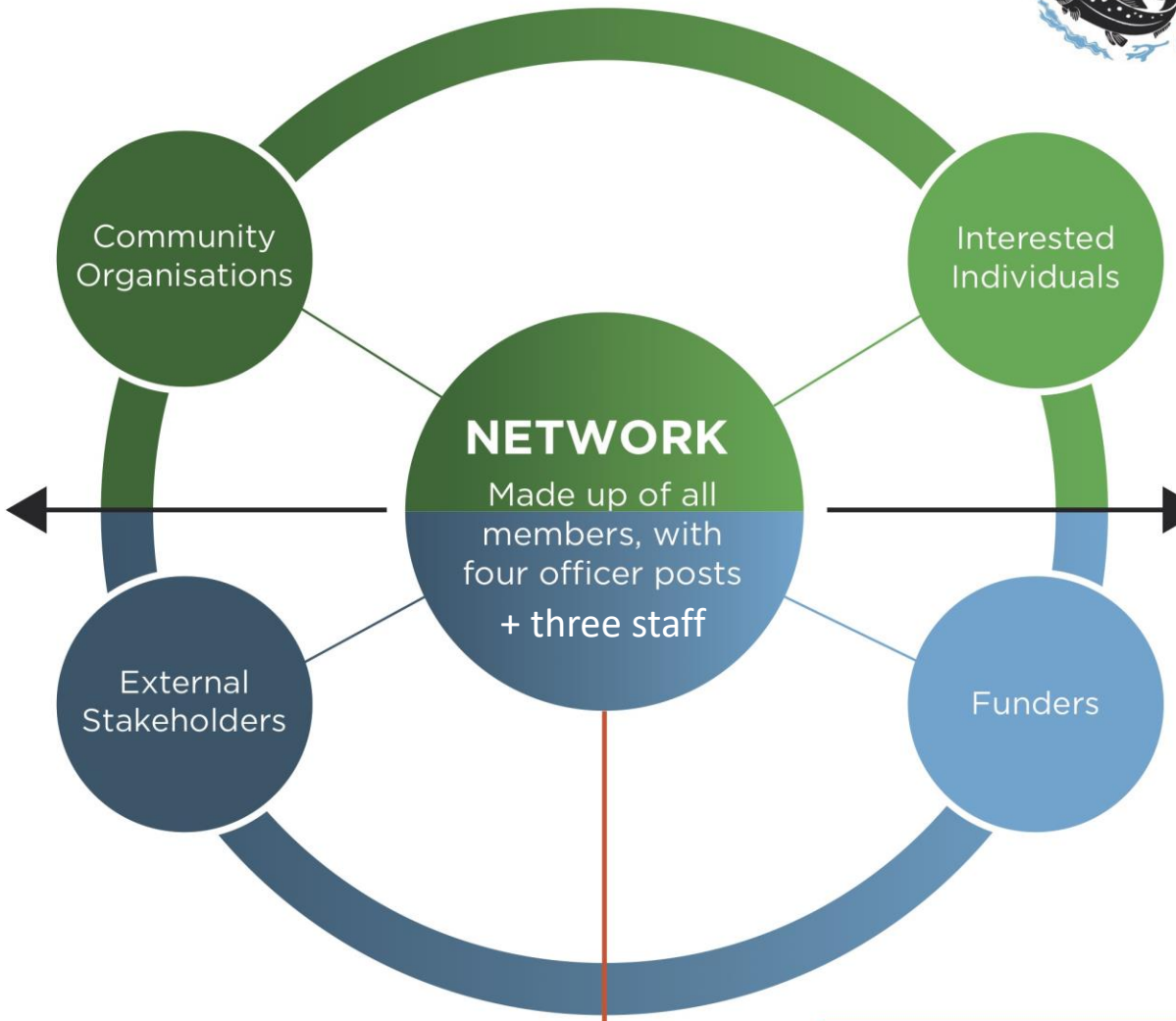
Brief Overview by Dr Maria Power

Network Formed in Feb 2021

YOUGHAL BLUE&GREEN Community Network

VALUES:

- Community Development Principles
- Community Benefit
- Respect
- Honesty

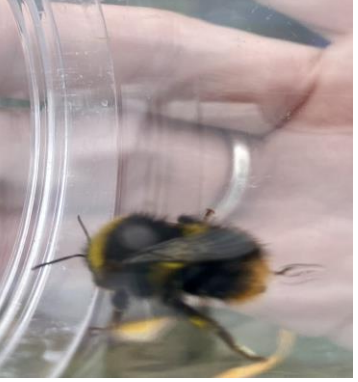


ACTION PLAN

2021 - 2023

Cumann na Daoine CDP hosts the governance arrangements for the Network

A Big sincere thank you to Cumann na Daoine



OVERVIEW - Three Pillars of Work

YOUGHAL BLUE&GREEN Community Network

RENEWABLE ENERGY

- Youghal Energy Audit – Sustainable Energy Community (SEC)
- Community Organisations – Reduce Energy usage, increase energy efficiency
- Decarbonisation Zone / Energy Efficient Town

COAST/MARINE/WATER

- Flooding - Community Resilience Plan & Workshops
- Marine Protected Area
- New Recycling and Cleaning Equipment for Beaches
- Protecting Sand Dunes
- Fresh Water Monitoring

ENVIRONMENT

- Tree Planting
- Community Garden
- Zero Waste Festivals / Campaigns
- Increased Biodiversity
- Pond Restoration
- Conservation

- Regular hosting of workshops, training, webinars and discussion in relation to all topics i.e. engagement
- PHYSICAL INFORMATION HUB AT CUMANN NA DAOINE with interactive videos and demo models
- All work agreed and steered by the Network – liaise with Community Development Projects re governance

Network Activities - Examples:

- Engagement Events – foraging, citizen science/water monitoring, coastal surveys, wellness & nature
- Capacity Building – energy audits for community organisations, expert presentations and workshops
- Specific Projects – 'Zero Waste' festival, exploring community Energy potential, community gardening, Information Hub for the public
- Encourage Cross Community and Inter-generational projects, climate change story telling, work with fishers, library and schools

EIRGRID

Seaweed Forage Knockadoon

Our very important Clean Coasts

Zero Waste Festival held at GAA

Our Labrinth at Youghal Beach

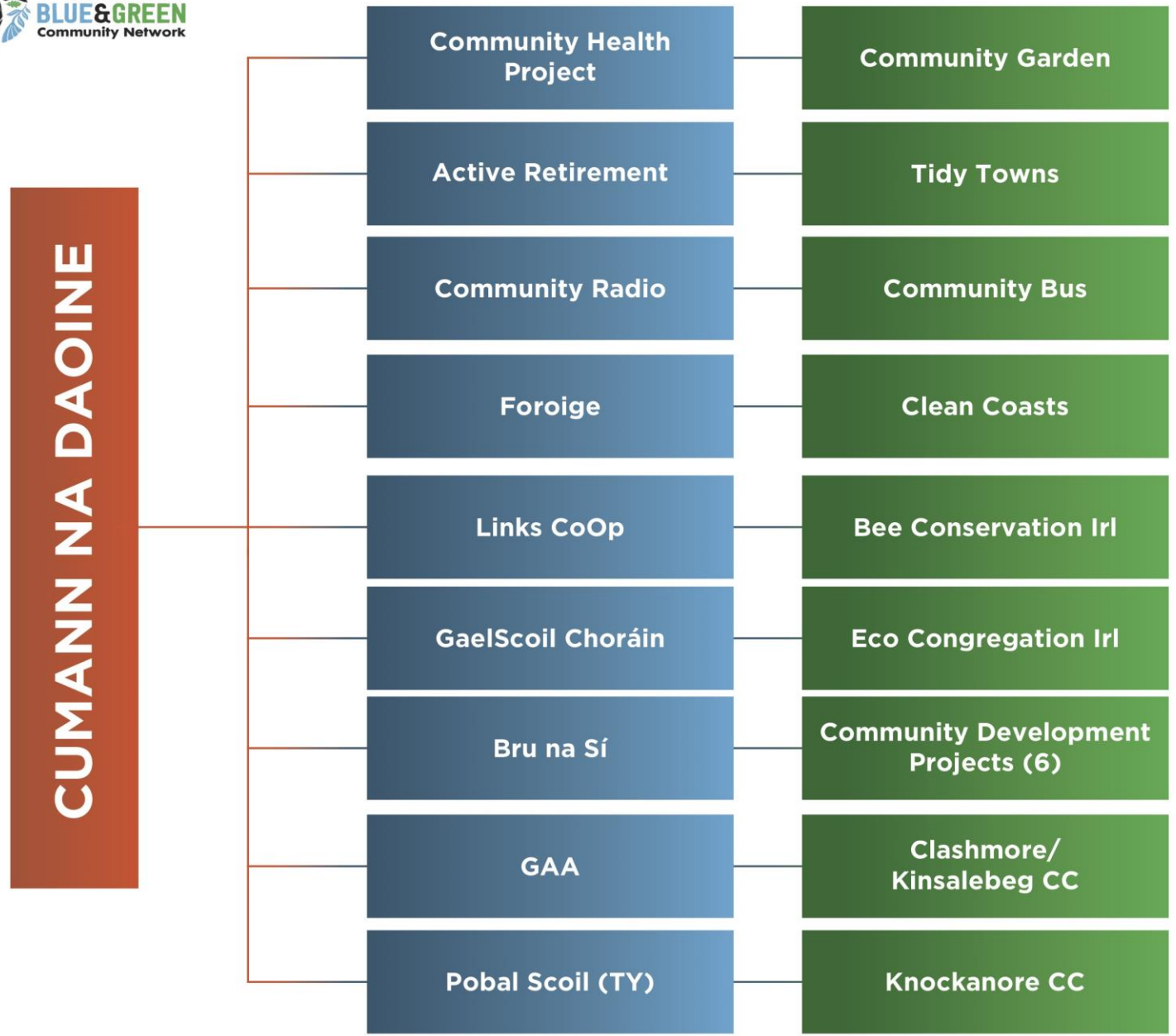
Birdwatch on the Blackwater

Salt Marshes

Mushroom Forage Glenbower

Our Members

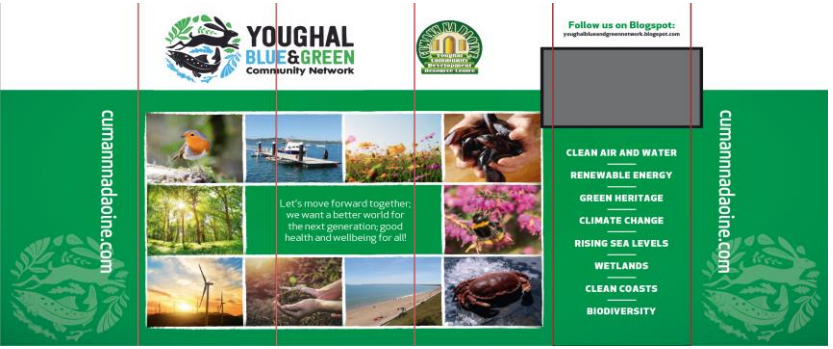
YOUGHAL BLUE&GREEN Community Network

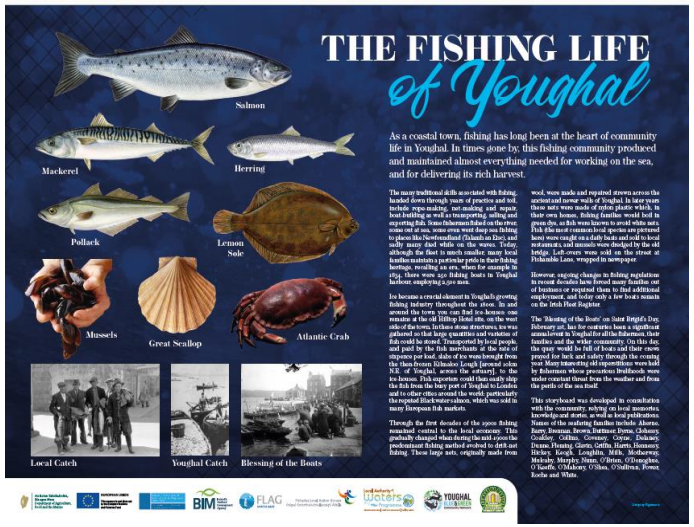


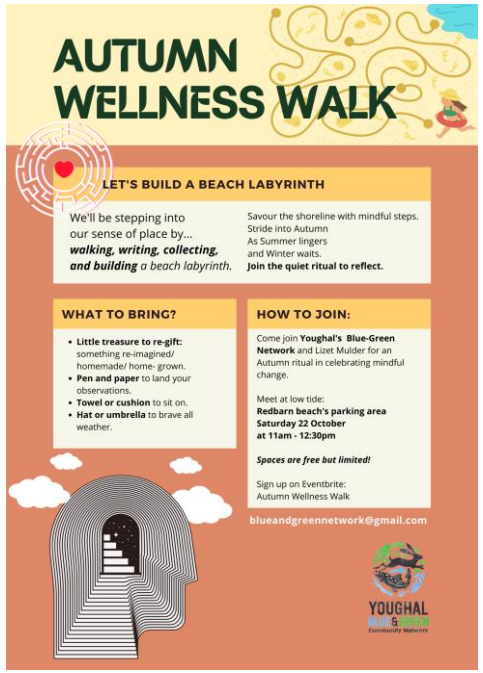
Now close to 30

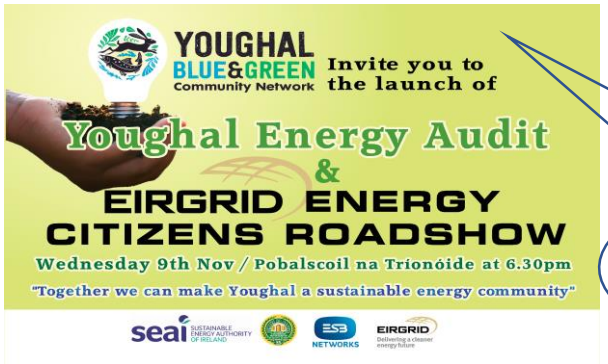
Plus 14 individuals committed to the Blue & Green Terms of Reference

Event Posters:









We would like to thank Eirgrid

EIRGRID

Ours funders:

An Roinn Forbartha Tuaithe agus Pobail
Department of Rural and Community Development

Tomar Trust
National influence, Local implementation

Cork County Council
Comhairle Contae Chorcaí

SECAD PARTNERSHIP

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

cetb
Bord Oideachais agus Oiliúna Chorcaí
Cork Education and Training Board

BIM Ireland's Seafood Development Agency

Local Authority Waters Programme
vibrant communities | catchment assessment | healthy waters

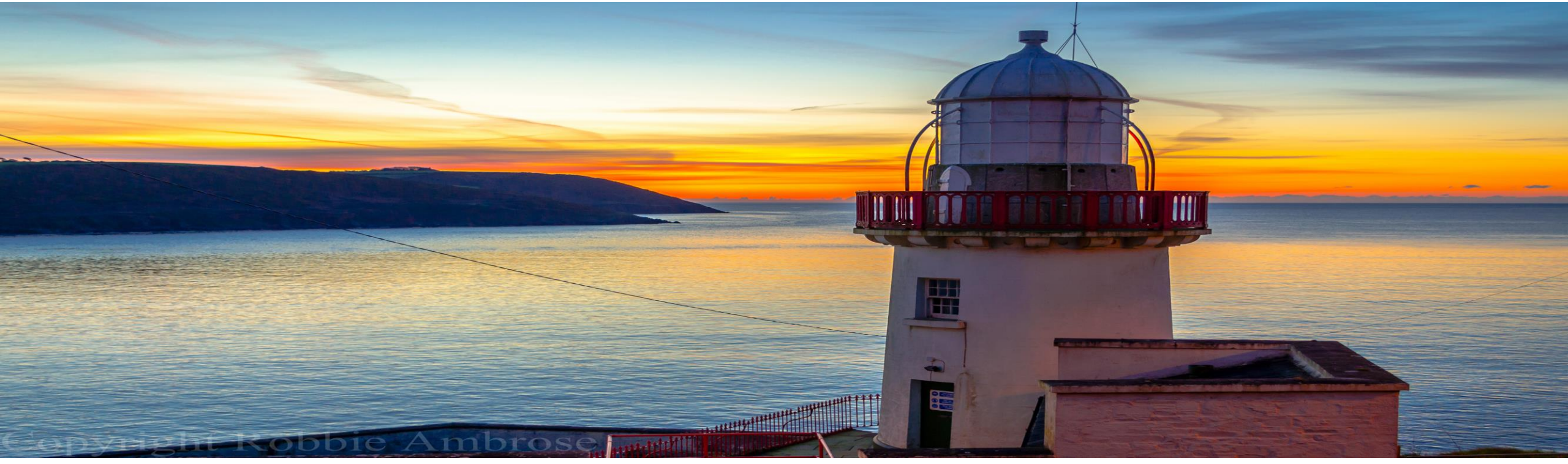
EIRGRID

YoughalBlueandGreenNetwork.blogspot.com

Facebook @YoughalBlueGreenNetwork

Instagram Youghal_Blue_Green

Email: youghalbluegreen@gmail.com



EirGrid Energy Citizens Roadshow

What Shaping Our Electricity Future means for Cork

Shane Cooney,

EirGrid

Cork Energy Citizens Roadshow

Youghal – 9th November

EIRGRID

Who are EirGrid and what do we do?

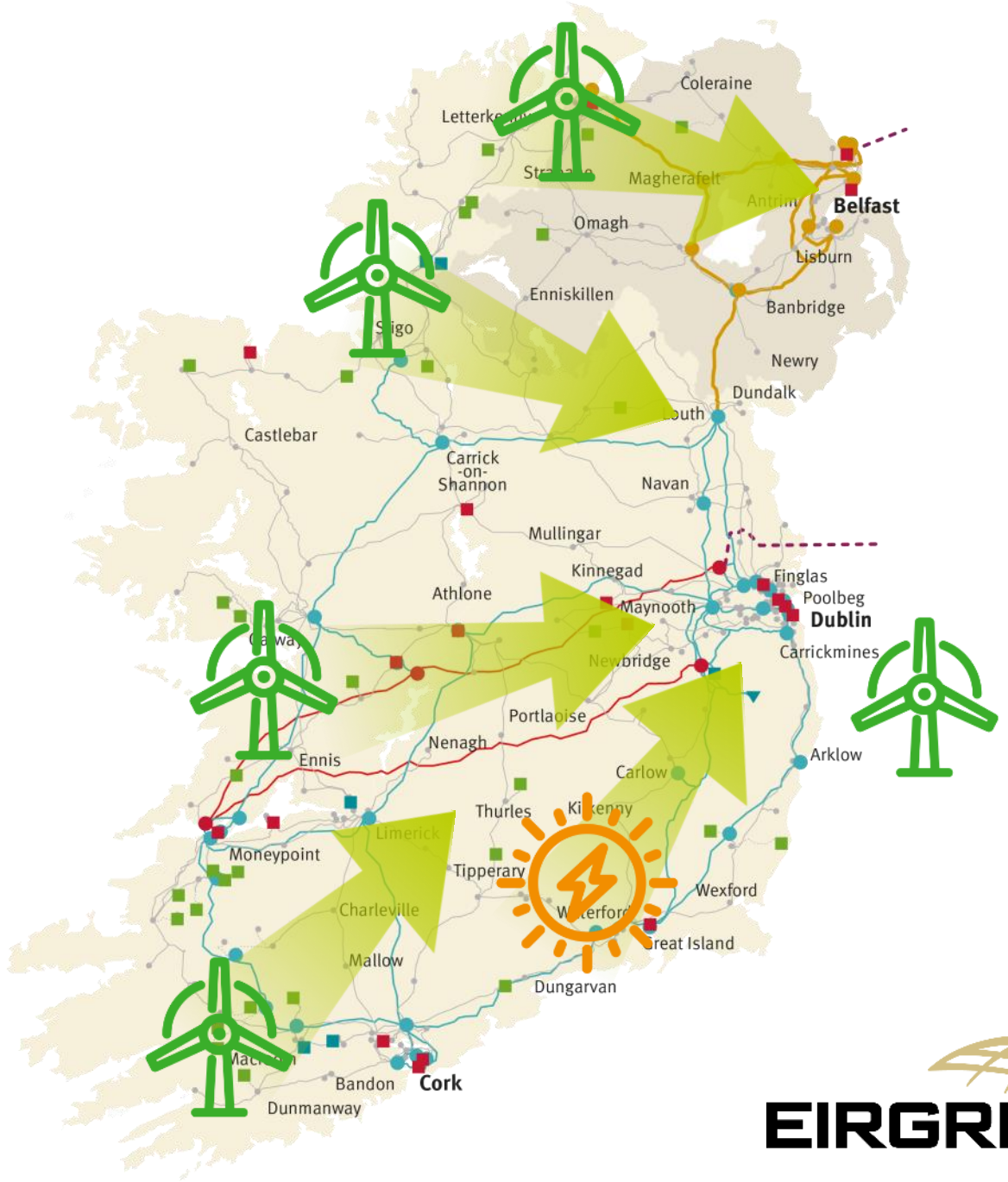
- State owned operators of Ireland's electricity transmission grid.
- We send power from where it is generated to where it is needed.
- We operate the wholesale electricity market.
- We operate electricity interconnectors with neighbouring countries.
- We do not generate electricity.

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

Preparing Ireland's electricity grid

- More electricity will be carried across this grid than ever before, and most of this power will come from renewable sources.
- The grid needs to carry at least 10 GW more renewable electricity by 2030 – double 2020 levels.
- Power output from renewable sources depends on the weather.
- Renewable electricity is typically generated far away from where most electricity is used.



EIRGRID

How will we achieve this?

Ireland Approach

Generation-led approach with aspects of Demand-led and Technology-led

Northern Ireland Approach

A balance of all approaches, leaning towards Developer-led.

40 projects in Ireland

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

12 projects in Northern Ireland

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

10-year plans for

Engagement | Markets
Operations | Networks

A plan to deliver at least 70% renewable energy by 2030, an important step on the journey to 80%, on the island of Ireland.

Expected Generation

- 5.1 GW of Offshore Wind
- 2.4 GW of Onshore Wind
- 600 MW of Micro-generation Solar
- 1.3 GW of Large Scale Solar
- 1.65GWof Battery Storage
- 2.6 GW of Derated Gas

How did we consult...?

14-week consultation

Over 500 consultation responses

3 Day Deliberative Dialogue

Over 100 consultation events

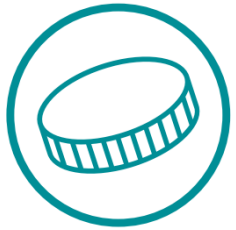
National Youth Assembly

Civil Society Forum

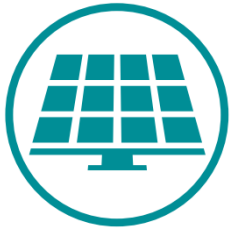
...and what did the public say?

Benefits for regional and rural communities

Community ownership



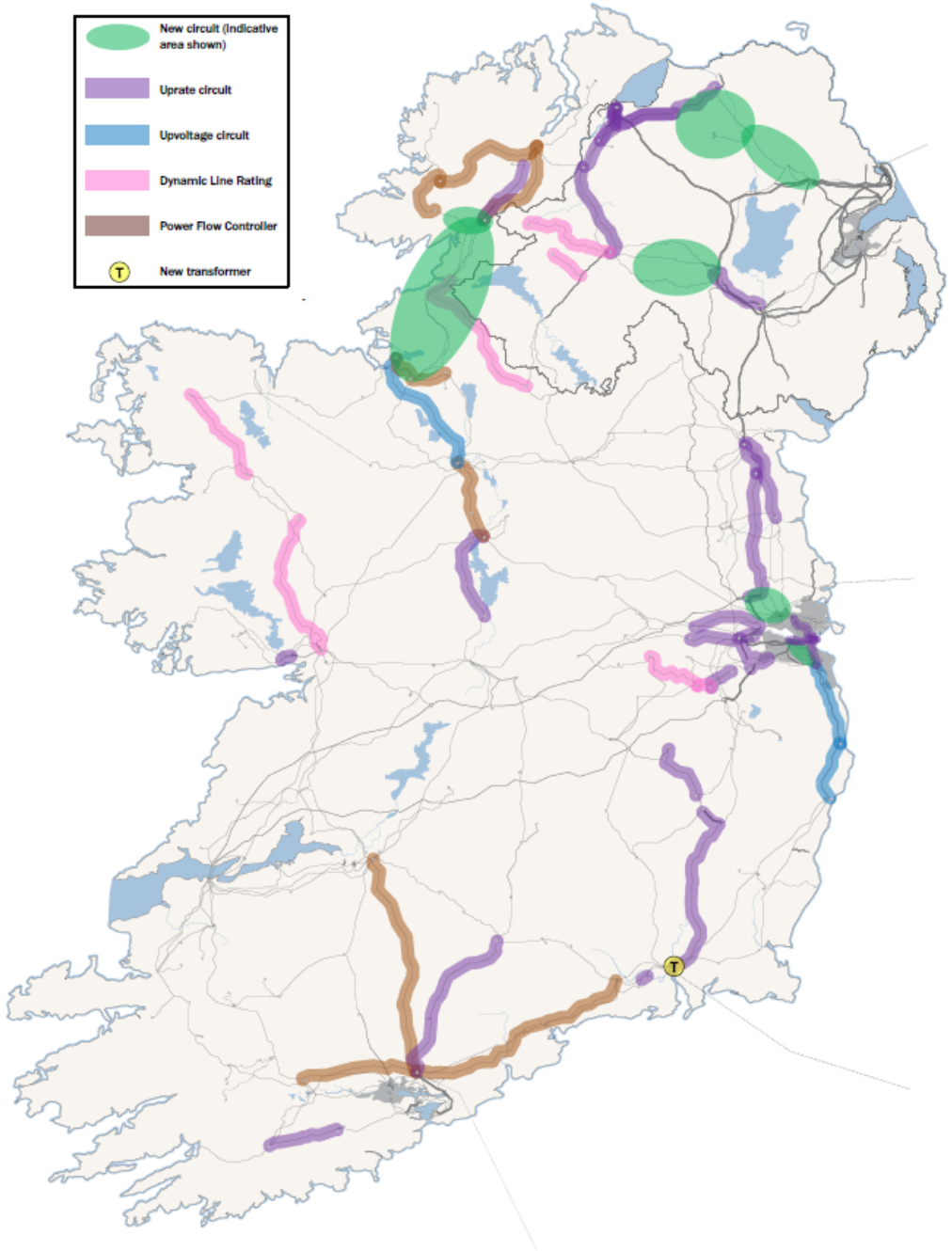
Keeping costs manageable



Microgeneration

Social acceptance

EIRGRID



What infrastructure will be required?

- **294 existing projects**

- **40 new projects in Ireland**
  - 3 new circuits
  - 7 upgrades
  - 2 new technology projects
  - 1 new transformer

- **12 new projects in Northern Ireland**
  - 3 new circuits
  - 7 upgrades
  - 2 new technology projects

EIRGRID

2 project promoters

EirGrid and Réseau de Transport d'Électricité

575 km

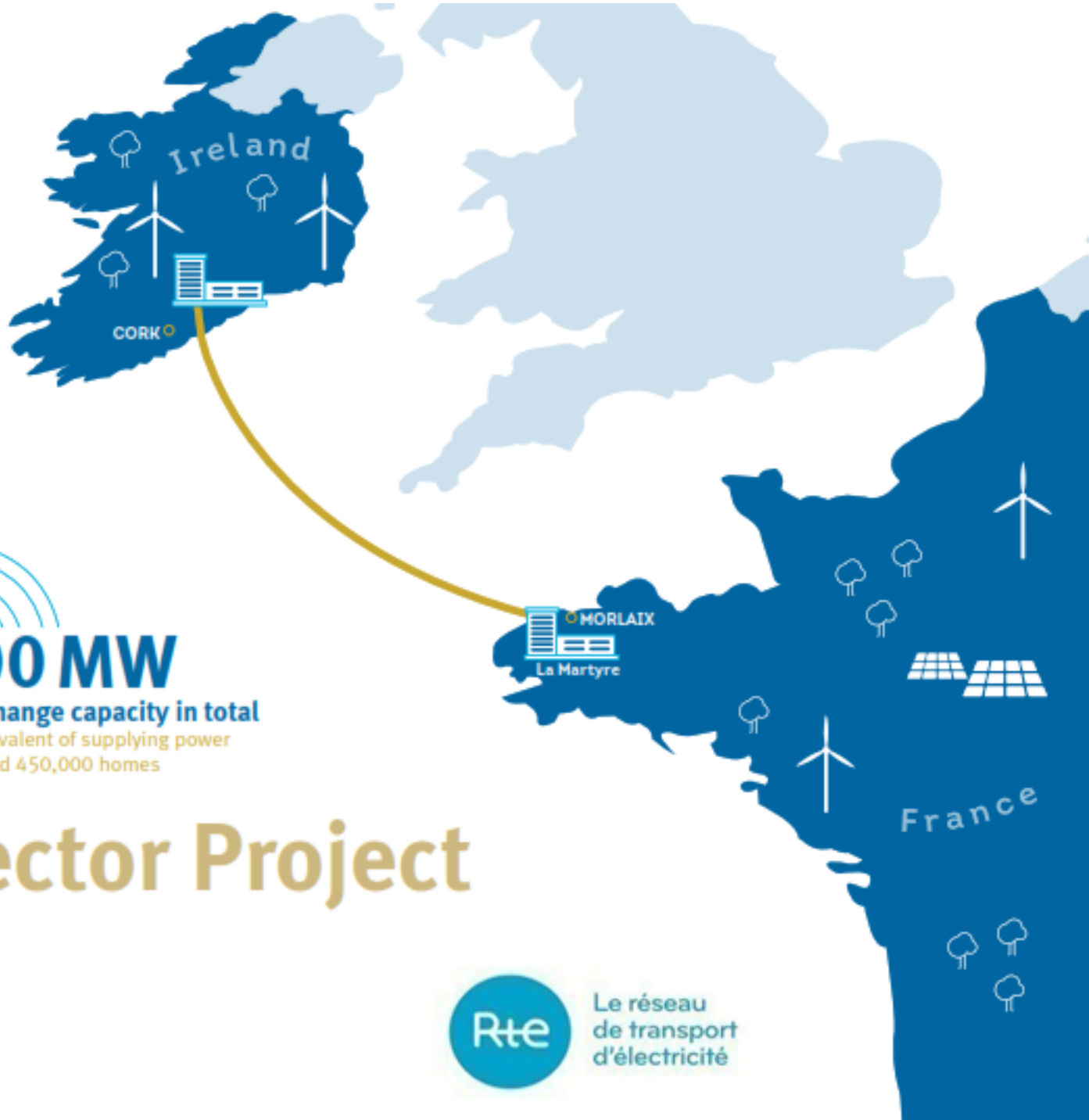
total length

500 km subsea

700 MW

of exchange capacity in total

the equivalent of supplying power to around 450,000 homes



The Celtic Interconnector Project

Connecting the Electricity Grids of Ireland and France

RTE Le réseau de transport d'électricité

The Celtic Interconnector

- Jointly designed and built by EirGrid and RTE
- Substantial €530.7m Connecting Europe Facility Grant
- Connects Ireland's Electricity Market to the French Electricity Market
- Enhances Security of Supply
- Essential to Ireland's Climate Action Ambitions

European Commission

Construction 2022 - 2026

EIRGRID

Next Steps – Celtic Interconnector

Current Phase

EPC Contracts

Balance of Funding

Approvals

Next Phase

Build

Cable Installation

Operational Readiness

Commission

EIRGRID

Summary

- Shaping Our Electricity Future Roadmap was published in November 2021 at COP26. An update will publish in Q1 2023.
- It provides a deliverable plan through to 2030 and ultimately towards a net zero carbon energy system by 2050.
- To achieve this plan, significant transmission network upgrades are required (new and existing).
- This will be supported by an extensive program of community and stakeholder engagement.

EIRGRID

Thank You

EirGrid Energy Citizens Roadshow

National Network Local Connections Programme

Gerry Noone

ESB Networks

EIRGRID

ESB NETWORKS

NATIONAL NETWORK LOCAL CONNECTIONS PROGRAMME

Youghal Energy Citizens Roadshow

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

Supporting this Community

What the studies are telling us!

Why?

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

Mini-generation

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

Beat the Peak!

Beating the Peak in My Home

Coming in 2023

Beating the Peak in our Community

Coming in 2023

www.esbnetworks.ie/pilot

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

ESB NETWORKS

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

EirGrid Energy Citizens Roadshow

Sustainable Energy Communities

Conor O'Brien

SEAI

EIRGRID

SUSTAINABLE ENERGY COMMUNITIES

Supported by

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Home upgrades by county

This map details the number of homes upgraded through each scheme by county. Select a county from the map, or drop down menu to view full details.

County Cork

Download the full county by county list >

Grant schemes

Government grant schemes that have enabled these improvements include:

- Free Upgrades for Eligible Homes (2000 to date, currently open). This scheme funds energy efficiency improvements in the homes of vulnerable people in, or at risk of, energy poverty. The Warmth and Wellbeing scheme targets those living with chronic respiratory conditions.
- Home Energy Grants (2006 to date, currently open) supports home insulation, heating and renewable energy upgrades.

County Cork

Home Energy Grants **37,618**

Total homes upgraded **51,863**

Free Energy Upgrades **14,245**

% Homes upgraded **23%**

10 workshops will run online across Winter into Spring 2023, providing support to communities and homeowners through the winter in keeping well, keeping warm, and energy efficiency tips to reduce bills.

Workshops will cover a range of topics from how to read your bill, all about BER's, no-cost / low-cost energy efficiency measures, to insulation options and renewables.

Workshops in the series:

Workshop 1: Home Energy Bills | 3rd November 2022 19:00 – 19:30 GMT

Workshop 2: **Energy Saving Lightbulbs** | 17th November 2022

Workshop 3: **Manage Your Energy Use** | 1st December 2022

Workshop 4: **Keep Well and Warm this Winter** | 14th December 2022

Workshop 5: **Building Energy Ratings (BER)** | 12th January 2023

Workshop 6: **Insulation and Ventilation** | 9th February 2023

Workshop 7: **A Guide to Heat Pumps** | 9th March 2023

Workshop 8: **Solar Electricity: PV for Homeowners** | 23rd/30th March 2023

Workshop 9: **Sustainable Transport** | 20th April 2023

Workshop 10: **Community Energy Generation** | 27th April 2023

To register click on this link:

https://www.ballyhouradevelopment.com/Event/seai-winter-workshop-series

3 steps to a warmer home

If your home was built pre 2011 it may need multiple upgrades to increase comfort levels and reduce your energy bills. Your home energy upgrade journey should be done in three steps. Following this process gives you the best results for your investment at every stage.

1. Assess

First you need to understand what home energy upgrades would benefit your home the most. A BER assessment now comes with a detailed advisory report, tailored to your home. This report gives you a roadmap to achieve a minimum B2 energy rating for your home. Use the report to decide which upgrades you want to carry out.

2. Insulate

The next step is to insulate your home. This will help to keep your valuable heat in your home, increasing your home comfort and reducing your heating bills. Insulation can include the attic, external walls, cavity walls, and floor. You may also consider installing new windows and doors. Learn about insulation in our home energy guide.

3. Add renewables

Now you can add a renewable energy system to your home to provide heat, hot water or electricity. The most popular renewable systems are heat pumps, solar water heating panels and solar photovoltaic panels.

Adding renewable energy to your home will reduce your energy bills and help you to achieve an A-rated home. It will also support the move away from fossil fuels.

SEAI Grants & Support

- **Homes**

– Warmer Homes Scheme (free upgrades for qualifying homeowners)

- One Stop Shop (whole home up to B2+)
- Better Energy Homes (Individual Grants)

- **Community** – SEC Mentors and EMP funding, Better Energy Communities, Renewable Electricity Support Scheme, Schools
- **Business** – SME Vouchers, EXCEED, Accelerated Capital Allowances, Project Assistance Grants
- **Transport** – EV grants, home chargers

www.seai.ie

Free Energy Upgrade

Free home energy upgrade service for qualifying homeowners

Fully funded by SEAI
All home upgrade costs covered

What is included

This service is managed by SEAI and includes:

- home survey
- contractor selection
- contractor works
- follow up BER

Who this is for

For qualifying homeowners in receipt of certain welfare benefits:

- Fuel Allowance
- Job Seeker's Allowance
- Working Family Payment
- One Parent Family Payment
- Domiciliary Care Allowance
- Carers Allowance
- Disability Allowance for over six months with a child under seven

Criteria for homes

For homes built and occupied before:

- 2006 for insulation and heating systems

About Free Energy Upgrades >

One Stop Shop Service

Registered companies will be listed in April. Complete home energy upgrade solution

Part funded with SEAI grants
Based on set grants per measure. Can be 45 - 50% of the cost for a typical family home

What is included

A One Stop Shop will manage your upgrade including:

- home energy assessment
- grant application
- project management
- contractor works
- follow up BER

Who this is for

For homeowners and landlords who want:

- multiple energy upgrades
- to upgrade to a minimum B2 BER
- a fully managed solution including grant applications
- to pay for the works net of eligible grant

Criteria for homes

For homes built and occupied before:

- 2011 for insulation and heating controls
- 2011 for renewable systems
- All homes must complete a minimum level of energy upgrades and achieve a minimum BER rating of B2

About One Stop Shops >

Individual Energy Upgrade Grants

Selection of individual grants for home energy upgrades

Part funded with SEAI grants
Up to 30% of the cost of the upgrade for a typical family home

What is included

Homeowners manage their upgrades including:

- contractor selection
- grant application
- contractor works
- follow up BER

Who this is for

For homeowners and landlords who want:

- individual energy upgrades
- to manage their own project
- to apply for the grant themselves
- to pay for full cost of works and claim grants afterwards

Criteria for homes

For homes built and occupied before:

- 2011 for insulation and heating controls
- 2021 for heat pumps and renewable systems

About Individual Grants >

Fully Funded Energy Upgrade

For **qualifying** homeowners

Fully funded by SEAI

What is included

This service is managed by SEAI and includes:

- home survey
- contractor selection
- contractor works
- follow up BER

Who this is for

For qualifying homeowners in receipt of certain welfare benefits:

- Fuel Allowance
- Job Seekers Allowance for over six months with a child under seven
- Working Family Payment
- One-Parent Family Payment
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- Disability Allowance for over six months with a child under seven

Criteria for homes

For homes built and occupied before:

2006 for insulation and heating systems

One Stop Shop Service

A complete home energy upgrade solution

Part funded with SEAI grants

What is included

A One Stop Shop will manage your upgrade including:

- home energy assessment
- grant application
- project management
- contractor works
- follow up BER

Who this is for

For homeowners and landlords who want:

- multiple energy upgrades
- to upgrade to a minimum B2 BER
- a fully managed solution including grant applications
- to pay for the works net of eligible grant

You can access a wider range of grants using a One Stop Shop than if you were to manage the project yourself.

Grant name	Types of home	Grant Value
Heat Pump Systems	All Houses	€6,500
	Apartments	€4,500
Central Heating System for Heat Pump	All Houses	€2,000
	Apartments	€1,000
Heat Pump Air to Air		€3,500
Heating Controls		€700
Launch bonus for reaching B2 with a Heat Pump		€2,000
Solar Hot Water		€1200
Attic Insulation	Apartment (any)	€800
	Mid-Terrace	€1,200
	Semi-detached or end of terrace	€1,300
	Detached house	€1,500
Rafter Insulation	Apartment (any)	€1,500
	Mid-Terrace	€2,000
	Semi-detached or end of terrace	€3,000
	Detached house	€3,000
Cavity wall insulation	Apartment (any)	€700
	Mid-Terrace	€800
	Semi-detached or end of terrace	€1,200
	Detached house	€1,700
Internal Insulation (Dry Lining)	Apartment (any)	€1,500
	Mid-Terrace	€2,000
	Semi-detached or end of terrace	€3,500
	Detached house	€4,500
External Wall Insulation (The Wrap)	Apartment (any)	€3,000
	Mid-Terrace	€3,500
	Semi-detached or end of terrace	€6,000
	Detached house	€8,000

Individual Energy Upgrade Grants

Selection of individual grants for home energy upgrades

Part funded with SEAI grants

What is included

Homeowners manage their upgrades including:

- contractor selection
- grant application
- contractor works
- follow up BER

Who this is for

For homeowners and landlords who want:

- individual energy upgrades
- to manage their own project
- to apply for the grant themselves
- to pay for full cost of works and claim grants afterwards

Grant values for insulation

Each individual grant offers a fixed value.

Grant name	Description	Types of home	Value
Attic insulation	Often the most cost effective upgrade made to a house.	Apartment (any)	€800
		Mid-Terrace	€1,200
		Semi-detached or end of terrace	€1,300
		Detached house	€1,500
Cavity wall insulation	Cavity walls are injected from the outside with insulation.	Apartment (any)	€700
		Mid-Terrace	€800
		Semi-detached or end of terrace	€1,200
		Detached house	€1,700
Internal Insulation (Dry Lining)	Insulation boards are fixed to the inside of external walls.	Apartment (any)	€1,500
		Mid-Terrace	€2,000
		Semi-detached or end of terrace	€3,500
		Detached house	€4,500
External Wall Insulation (The Wrap)	Insulating materials are fixed to the outer surface of external walls.	Apartment (any)	€3,000
		Mid-Terrace	€3,500
		Semi-detached or end of terrace	€6,000
		Detached house	€8,000

Grants available

See which SEAI grants are available with each package.

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

Check your eligibility >

About One Stop Shops >

About Individual Grants >

- **Sustainable Energy Community –** €10,000 -€15,000 grant readily available
- **Easy to Establish –** 10 minute on-line form to register
- **Learn – Plan – Do**
- **Energy Master Plan –** fact based road-map to achieving energy success.

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

OVER 500 COMMUNITIES

Part of SEAI's Sustainable Energy Communities Network

MORE THAN **25,000** CITIZENS ENGAGED

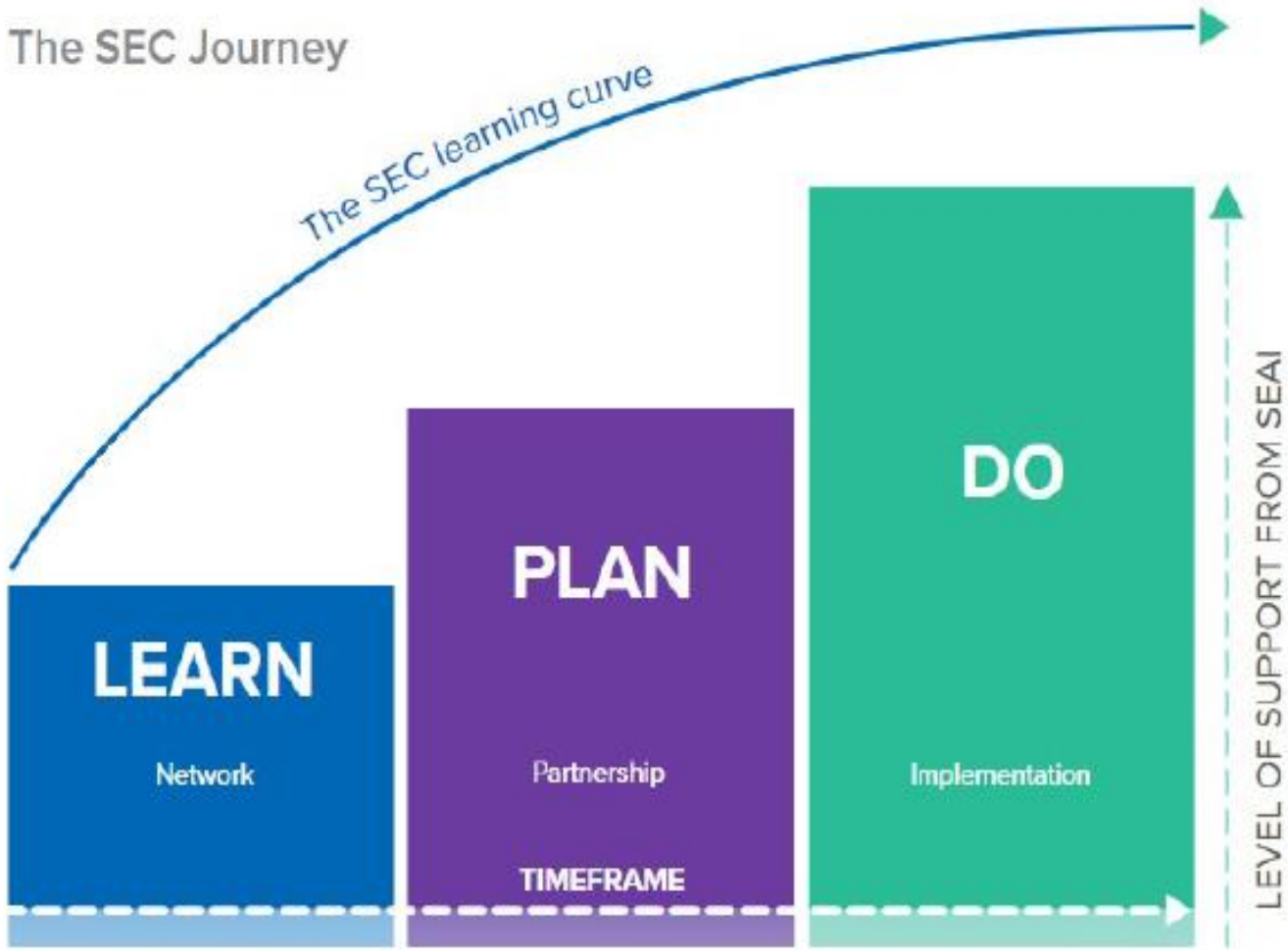
40 ENERGY MASTERPLANS COMPLETED

100 COMMUNITIES

Are currently working on their Energy Master Plans

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

Rialtas na hÉireann
Government of Ireland


The SEC Journey
The SEC learning curve
LEARN
Network
PLAN
Partnership
DO
Implementation
TIMEFRAME
LEVEL OF SUPPORT FROM SEAI

Do

Stepping stone to further measures –

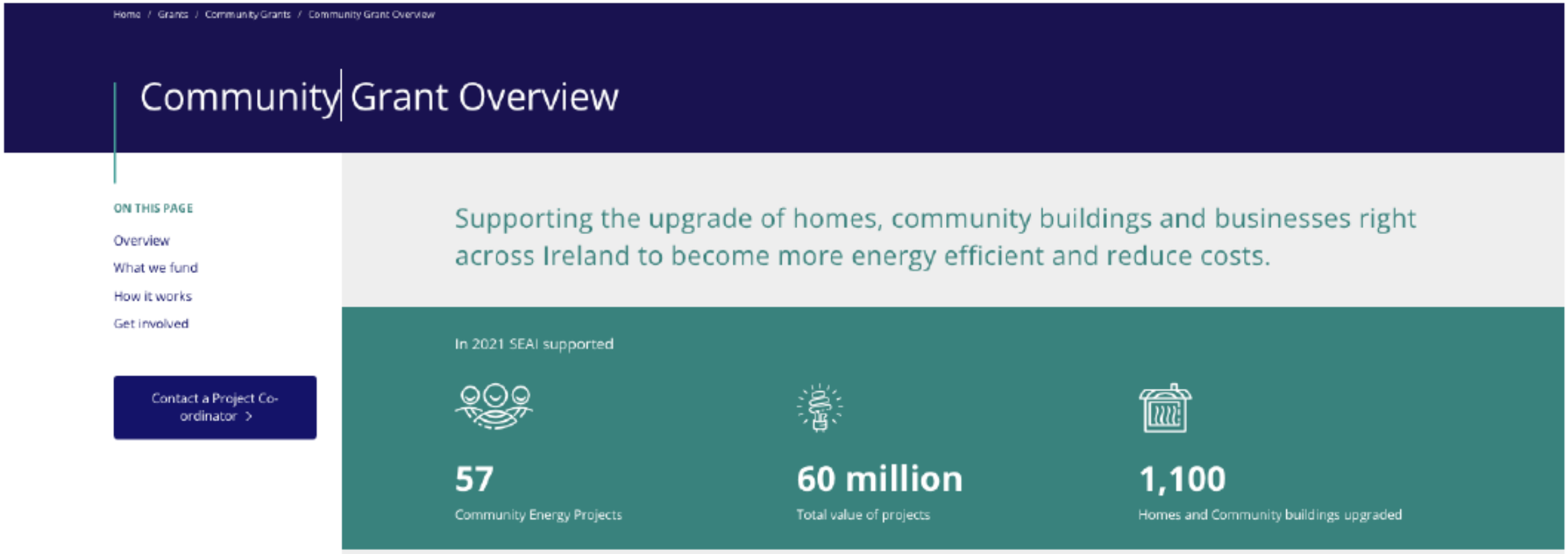
Community Energy Grant (previously BEC Better Energy Community scheme)

Project Coordinator approached

Project Coordinator manages the entire process

- homeowners
- community groups
- private sector organisations
- public sector bodies

Do


Home / Grants / Community Grants / Community Grant Overview
Community Grant Overview
ON THIS PAGE
Overview
What we fund
How it works
Get involved
Contact a Project Co-ordinator >
Supporting the upgrade of homes, community buildings and businesses right across Ireland to become more energy efficient and reduce costs.
In 2021 SEAI supported
57
Community Energy Projects
60 million
Total value of projects
1,100
Homes and Community buildings upgraded

Do

Stepping stone to further measures –

Community Owned Energy possibilities:

Renewable Electricity Support Scheme **RESS**

1. Mandatory Community Benefit Funds

€2/Mwatt hr, Estimated ultimate total €1-2 billion

2. Community Enabling Framework

(a) Information Hub

(b) Trusted Advisor

(c) Financial Support up to €180k

SUSTAINABLE ENERGY COMMUNITIES

Contact:

SEAI SEC Mentors

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087 904 7810 conorobrien1@gmail.com

Kieran Lettice
086 839 0445 kieran.lettice@energycork.ie

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Youghal Energy Audit

Ryan Madden

Plan Energy

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SUSTAINABLE ENERGY SOLUTIONS

BELFAST | SLIGO | DUBLIN

www.planenergy.co.uk

Youghal Energy Audit

9th November 2022

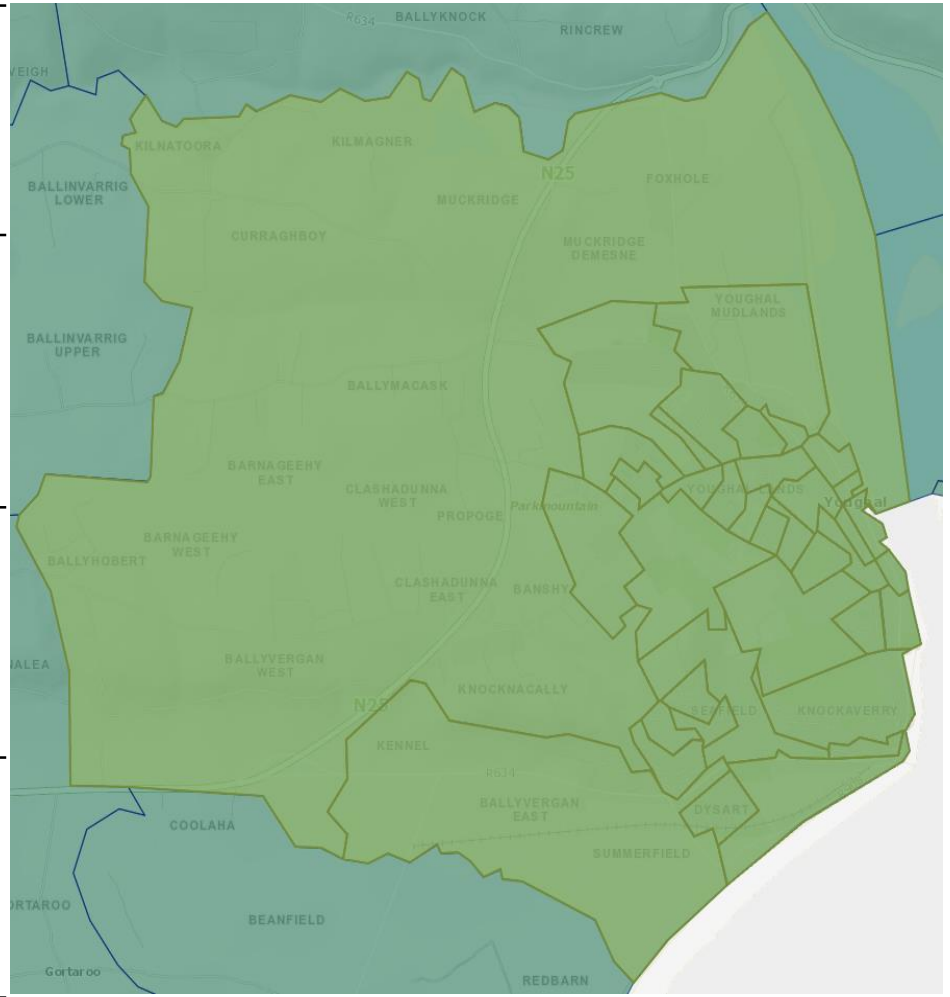
How we wrote the report

REVIEW OF RESIDENTIAL, INDUSTRIAL, COMMERCIAL AND COMMUNITY LIFE

ESTABLISH ENERGY CONSUMPTION, EMISSIONS, AND COSTS FOR EACH SECTOR

REVIEW OF ENERGY USAGE IN A SAMPLE OF BUILDINGS IN THE AREA

IDENTIFY ENERGY EFFICIENCY AND RENEWABLE ENERGY OPPORTUNITIES



THE IMAGE (FIGURE 1) DEPICTS THE AREA COVERED BY YOUGHAL SEC. THIS WAS GENERATED USING THE SMALL AREAS AS DEFINED BY THE CENTRAL STATISTICS OFFICE (CSO SAPMAP 2016)

Ireland's Climate Action Plan - Greenhouse Gas reduction targets

29-41%
(2019-2030)

70% Energy from Renewables by 2030

22- 30%
(2019-2030)

Provide sustainably produced biomethane for injection to gas grid by 2030

42-56%
(2019-2030)

600,000 heat pumps and 500,000 retrofits for residencies

-51%
(2019-2030)

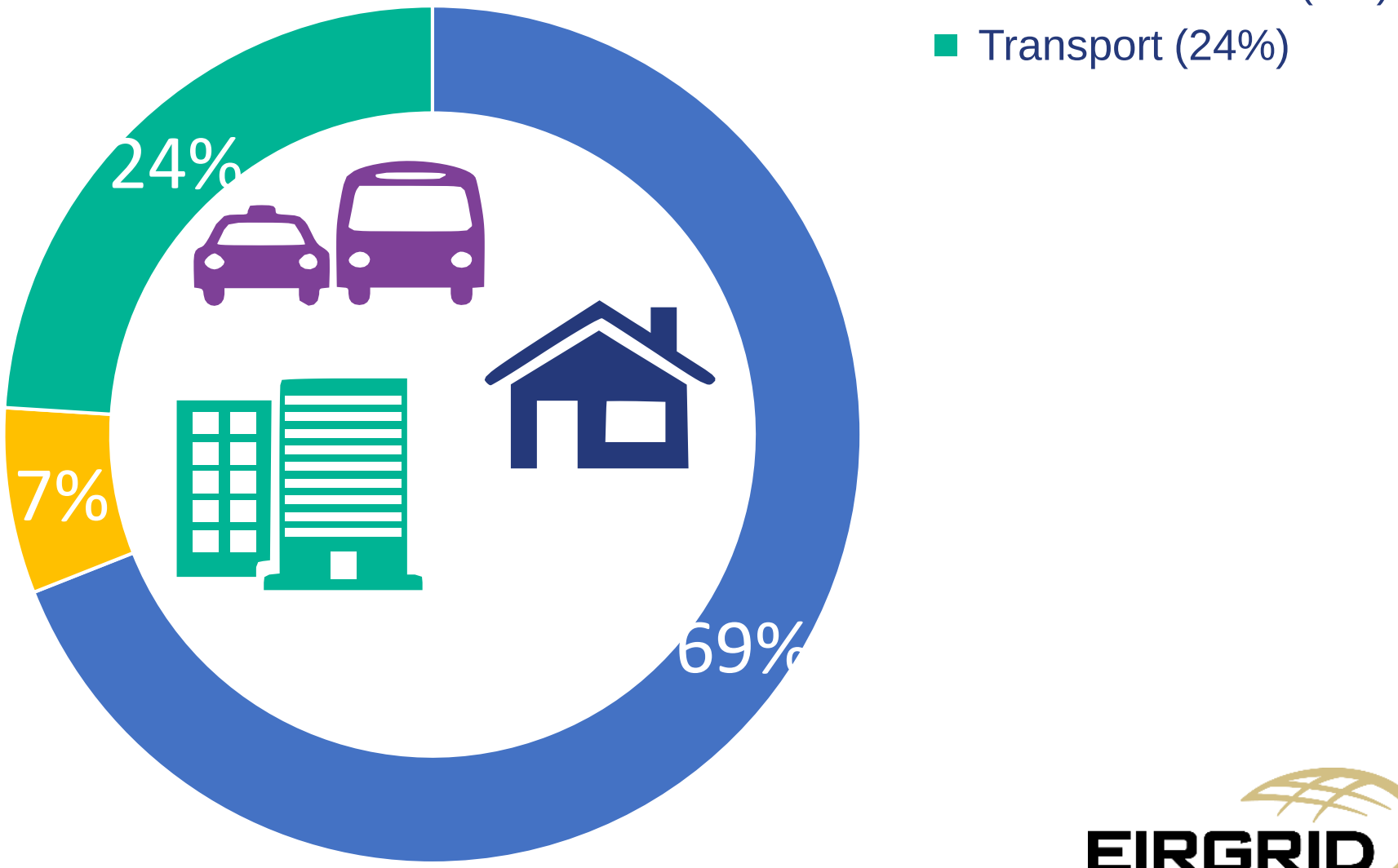
Expansion of energy efficiency programmes

42-50%
(2019-2030)

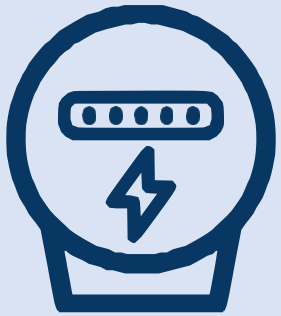
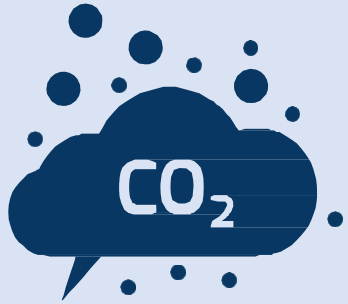
Provide an additional 500,000 daily public and active transport journeys

with additional measures!

Youghal SEC Sectoral Breakdown



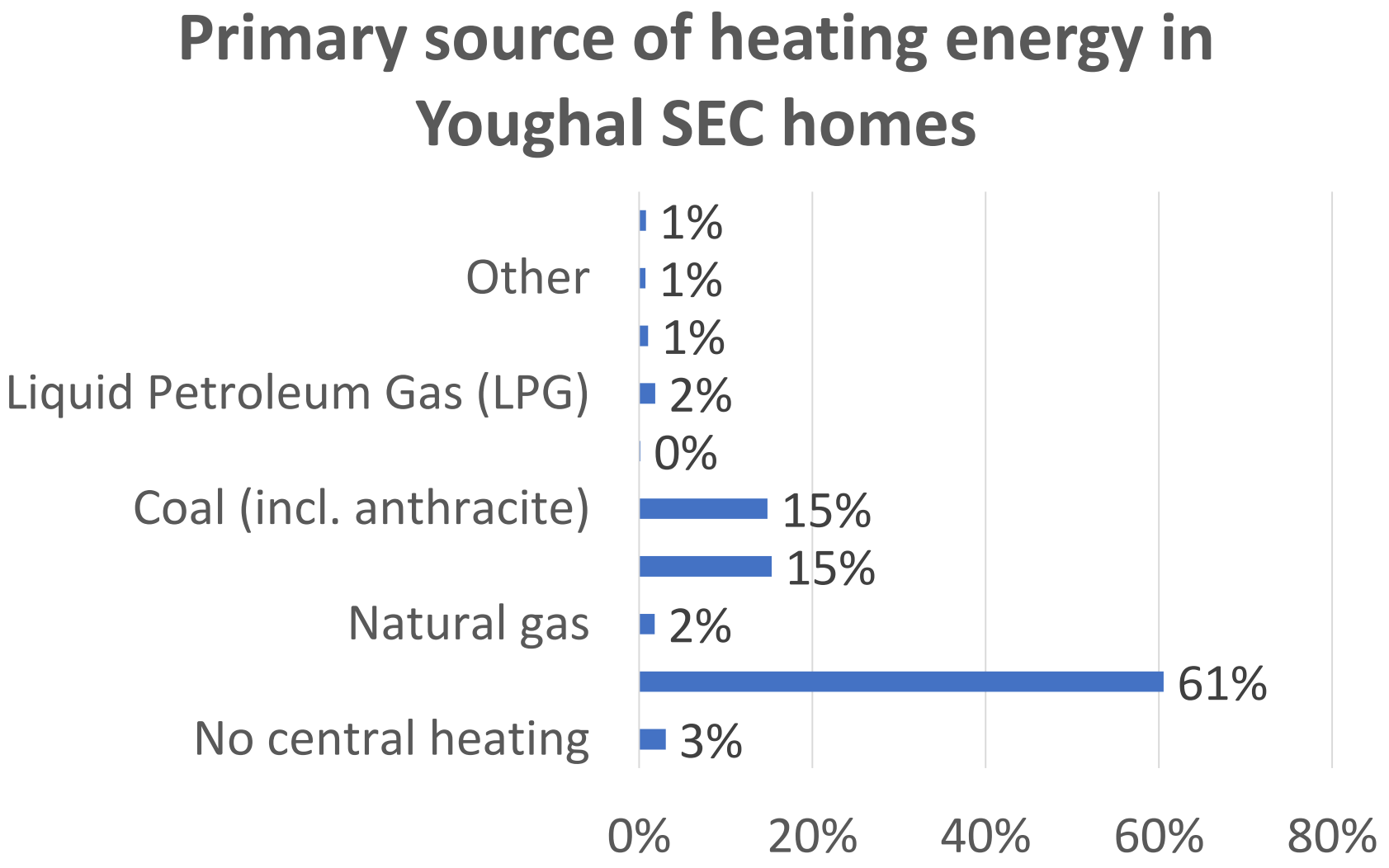
Youghal SEC Primary Energy Baseline

		
Total Energy Cost	**Kilowatts per Hour**	**CO2 Emissions**
€15,786,808	**107,294,000kWh**	**29,746 Tonnes**

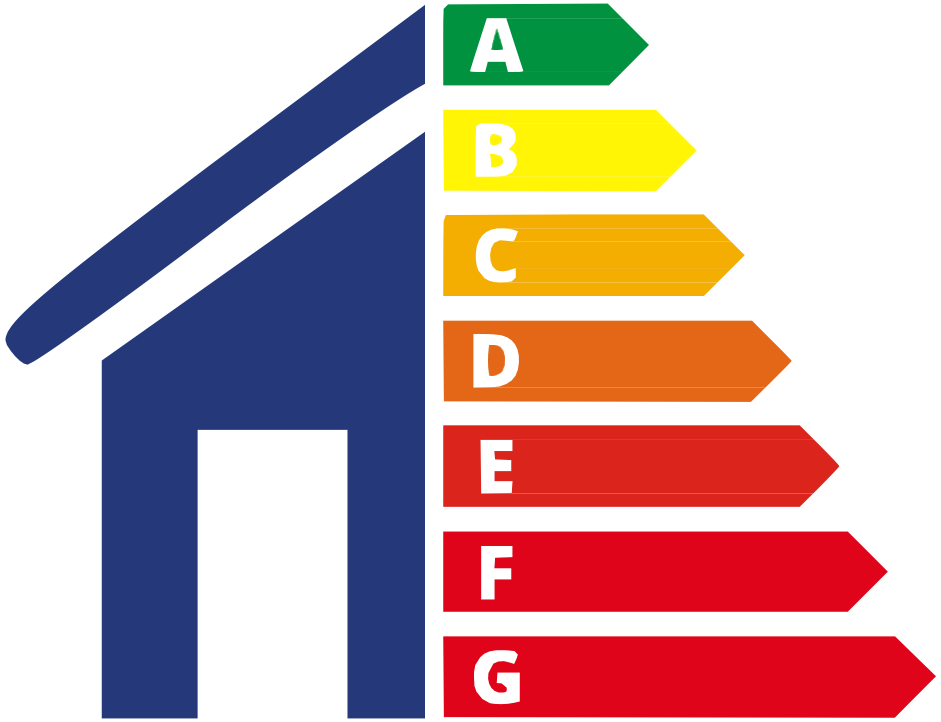
Residential Fuel Mix

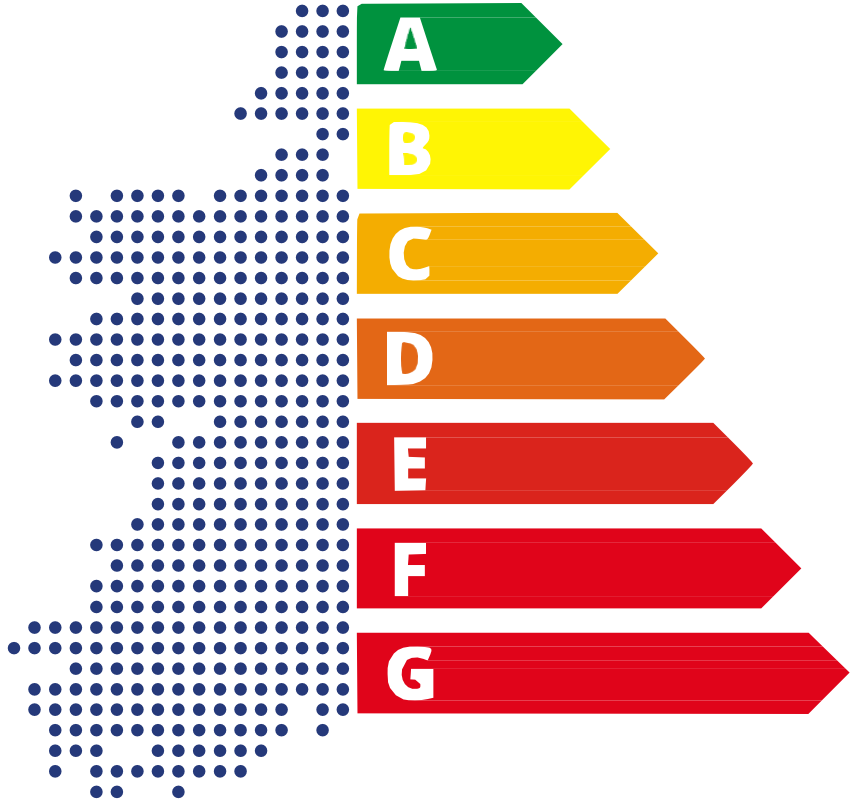
NO. OF HOMES

3309



Building Energy Rating statistics for Youghal SEC





SEC BER Average

D 2

5% of homes in SEC have a BER

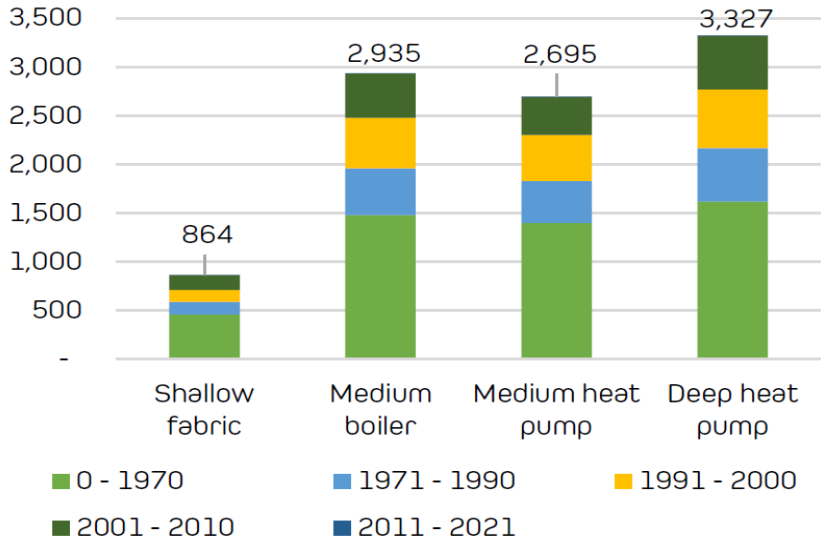
National BER Average

C 2

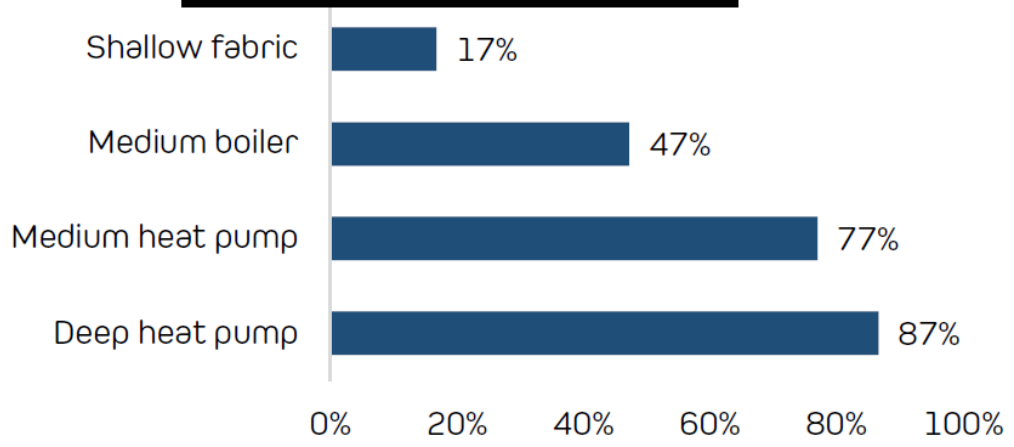
EIRGRID

RetroKit

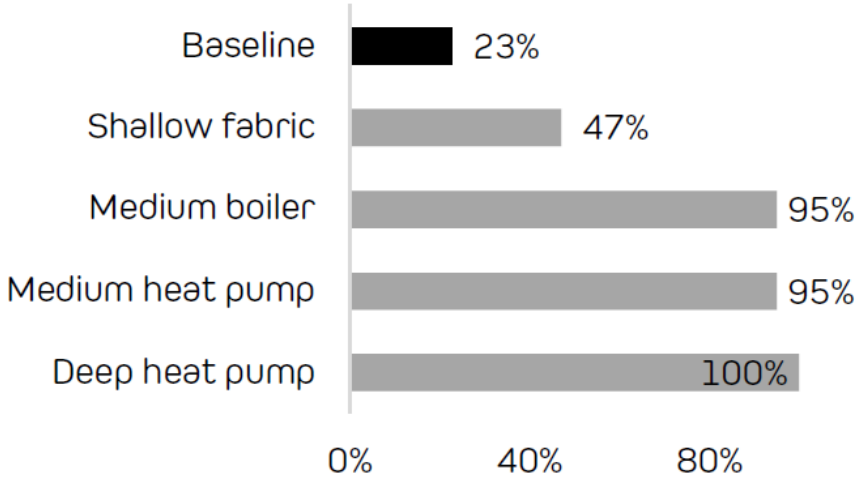
Total Annual Energy Savings (€,000/yr)



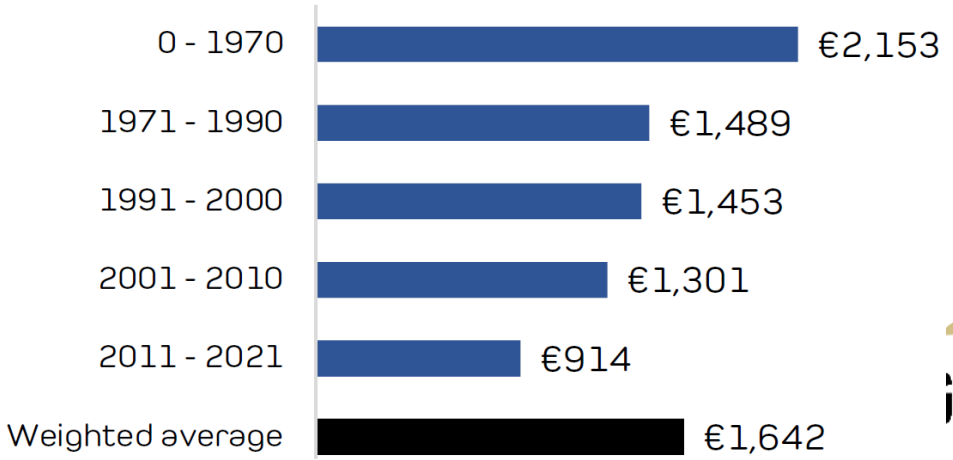
Reduction in Final Energy Use
(relative to the baseline)



Heat pump readiness per scenario



EnergyCost€ / dwelling per year €/yr



iRID

RetroKit

Shallow fabric

BER:	Fuel Bills:	Environmental Impact:
D1	€-318/yr	-2106 kgs CO_2/yr

	Cost	Impact
Fit low energy lighting throughout property	€125	★ ☆ ☆
300mm Attic insulation at ceiling (from 0mm)	€1559	★ ★ ★
Draught proofing - windows, doors and attic hatch	€358	★ ☆ ☆
Fit chimney draught excluder	€187	★ ☆ ☆
Change open fire for high efficiency wood stove	€4255	★ ★ ☆
Energy credits	€448	
Total investment	€6038	

Age Band	Dwelling Type	Main fuel type	Main wall type
2001 - 2010	Detached house	Heating oil	Cavity
1991 - 2000	Detached house	Heating oil	Cavity
1971 - 1990	Detached house	Heating oil	Cavity
<1971	Terraced house	Heating oil	Solid or hollow
2001 - 2010	Terraced house	Electricity	Cavity
<1971	Detached house	Solid fuel	Solid or hollow

EIRGRID

Medium heat pump

BER: B1

Fuel Bills: €-1005/yr

Environmental Impact: -5895 kgs CO_2/yr

	Cost	Impact
Fit low energy lighting throughout property	€125	☆ ☆ ☆
300mm Attic insulation at ceiling (from 0mm)	€1559	★ ☆ ☆
Draught proofing - windows, doors and attic hatch	€358	★ ☆ ☆
Fit chimney draught excluder	€187	★ ☆ ☆
Change open fire for high efficiency wood stove	€4255	★ ☆ ☆
External wall insulation (100mm) to solid wall	€13145	★ ★ ☆
Replace door with highly insulated door	€1920	★ ☆ ☆
Replace windows with double glazed windows	€4129	★ ☆ ☆
Air to water heat pump, new cylinder and controls	€8582	★ ★ ★
Change existing rads to low temperature radiators	€3576	★ ☆ ☆
Energy credits	€2705	
Total investment	€35136	

EIRGRID

Transport Energy – Transitioning away from Diesel powered cars

Current Transport Energy Baseline	Electricity	Fossil Fuel	Total
Total Primary Energy (kWh)	37,620	24,293,478	26,019,589
Total CO2 (tonnes)	6	6,137	6,143
Total Spend (€)	€6,997	€4,829,826	€5,150,883

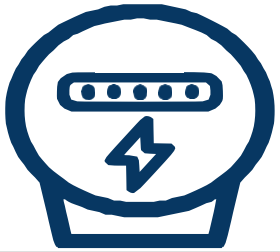
20% of fleet comprised of EVs and 20% less journeys	Electricity	Fossil Fuel	Total
Total Primary Energy (kWh)	1,880,983	15,672,954	18,756,320
Total CO2 (tonnes)	322	3,952	4,274
Total Spend (€)	€355,506	€3,164,532	€3,747,288

7,263,269 kWh of Fuel

1,869 Tonnes

€1,403,595 Annual Fuel Spend

Non-Domestic Sector



7,475,000 kWh

2140 Tonnes

€1,186,775

As part of the energy master plan for Youghal three non-domestic premises were audited to identify opportunities for energy efficiency measures. The premises which were audited received a detailed report which was provided to each of the property owners

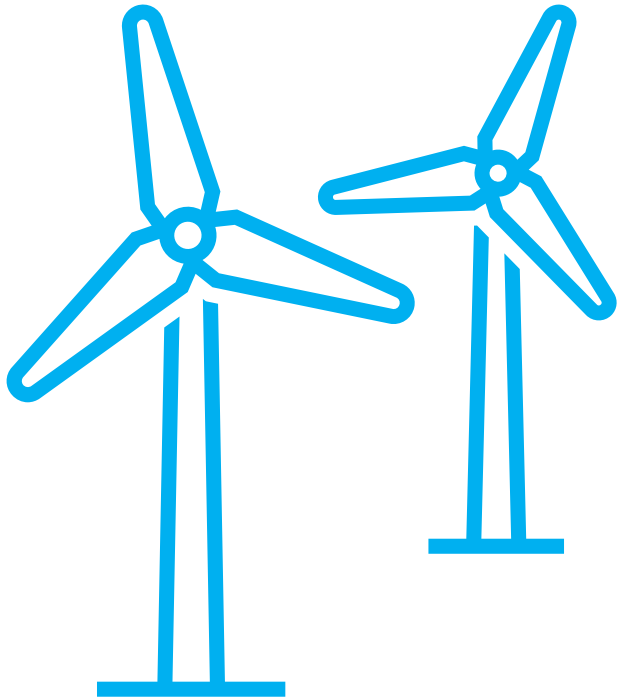
- Cumann Na Daoine
- Gael Scoil Choráin
- Bru na Sí

SECs' annual Non-Domestic Energy usage, CO2 emissions and Expenditure

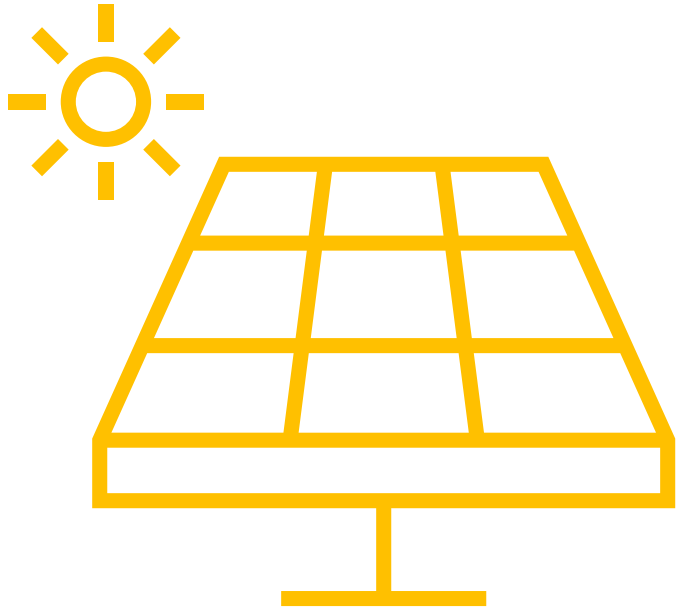
EIRGRID

Renewable Energy

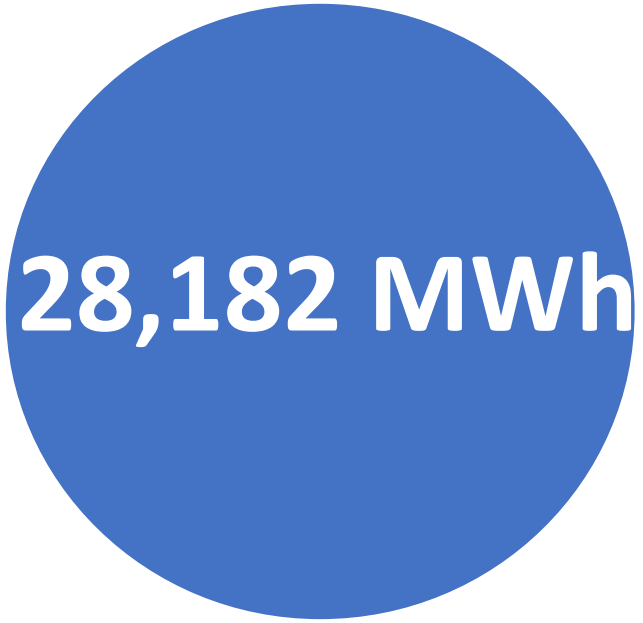
Where a 20% reduction in electricity consumption could be achieved there would remain a residual demand in the Youghal SEC of 28,182 MWh. In order to meet this residual demand a community/private owned 12 MW Wind turbine or a 32 MW of Solar PV could be used to sustainably offset this demand



12 Megawatt wind turbine

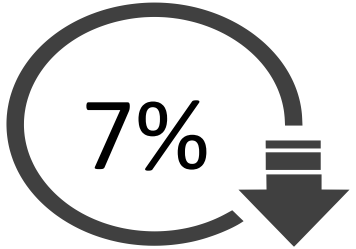


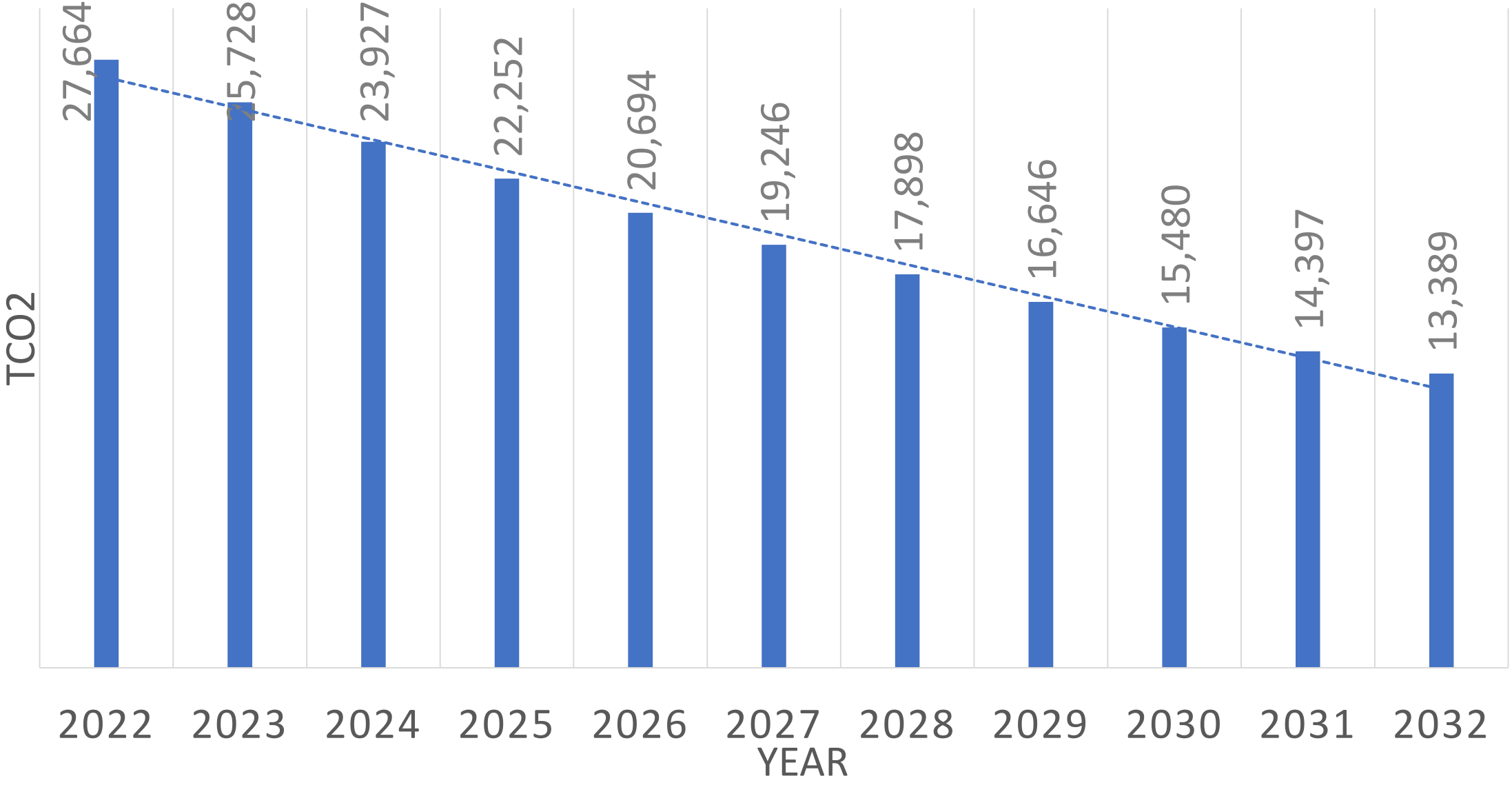
32 Megawatts of Solar PV



Residual Energy demand

Annual Reduction in the Carbon Footprint for Youghal SEC





Youghal SEC plan to 2030

	Number of Projects	Primary Energy Savings (kWh)	CO2 Savings (tonnes)
BER B2 No. of homes to be refurbished to B2	500 x 100m2 Buildings	6,270,000	1,595
Renewable Energy Potential	13 MW Wind Turbine	28,182,390	8,336
Electric Vehicle Potential	40% Battery Electrical Vehicle	5,250,617	1,547
Reduction in Car Journeys	40% reduction in car journeys	8,307,589	1,838
Total saving potential		**48,010,596**	**13,317**

Cost of basic home energy appliances

Appliance	Energy (Kilowatts per hour)	Hourly Cost (Assuming €0.43 per kWh rate)	Average Daily Usage	Average Daily Cost (€)
Immersion	3kWh	1.29	2 hours to fully heat 120-litre tank	2.58
Fridge/freezer	0.18 kWh	0.07	24 hours	1.68
Tumble dryer	3 kWh	1.29	1 hour of drying	1.29
Desktop Computer	0.2 kWh	0.08	8 hours of use	0.64
Oven	2.4 kWh	1.03	1 hour of use	1.03
Electric shower	9.5 kWh	4.08	15 minutes of use	1.02
Dishwasher	1.8 kWh	0.77	2 hour cycle	1.54
Washing machine	0.8 kWh	0.34	2 hour cycle	0.68
Iron	2.5 kWh	1.08	Half an hour	0.59
TV	0.2 kWh	0.08	4 hours of use	0.32
Laptop	0.1 kWh	0.04	8 hours of use	0.32
Kettle	0.7 kWh	0.31	10 minutes of use	0.05
Lightbulb	0.06 kWh	0.03	6 hours of use	0.18
Hair Dryer	2 kWh	0.86	15 minutes of use	0.13
Vacuum Cleaner	0.7 kWh	0.31	20 minutes of use	0.06
Toaster	1.5 kWh	0.65	5 minutes of use	0.13
				Daily total
				€12.24

Thanks for listening

YOUGHAL

ENERGY

AUDIT

YOUGHAL BLUE&GREEN Community Network

November 2022

Supported by seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND planenergy SUSTAINABLE ENERGY SOLUTIONS

EirGrid Energy Citizens Roadshow

Questions and Answers

EirGrid Energy Citizens Roadshow

Next Steps

Connor McGookin

YOUGHAL BLUE&GREEN Community Network

EIRGRID

Opportunities in a Sustainable Energy Future

Workshop 1 – Wednesday, November 16th, 7pm

Personal / Home Energy Improvements

Workshop 2 – Wednesday, November 30th, 7pm

Community Energy Responses

Venue - CnD Community Café, Catherine st.

YOUGHAL BLUE&GREEN Community Network

EirGrid

Energy Citizens Roadshow

Wrap up