Taking a stand for a sustainable energy future

Jim Scheer

SEAI

Fourth National Forum on Education for Sustainable Development (ESD)

Clock Tower, Marlborough Street, Dublin 1

28th November, 2018

What SEAI stands for

SEAI's Vision

Ireland's energy will be sustainable, secure, affordable and clean

1. Use Less

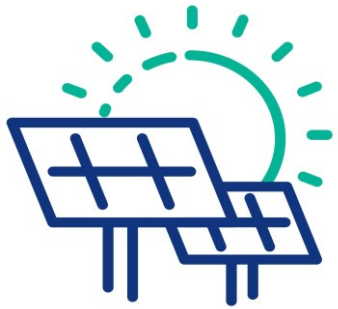
Energy Efficiency

2. Use Clean

Renewable energy

3. Innovate

New technological, economic & social approaches to sustainable energy transition



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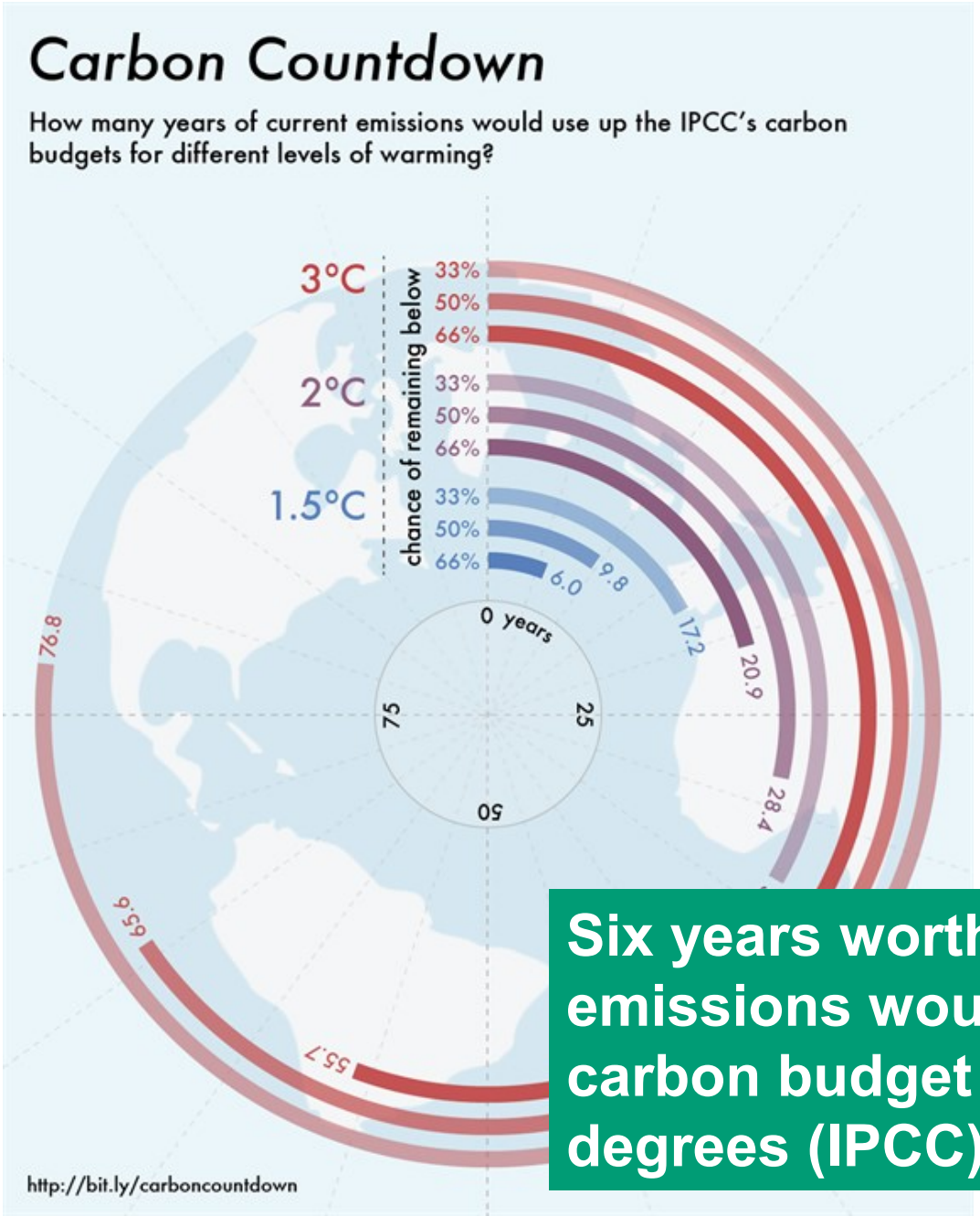
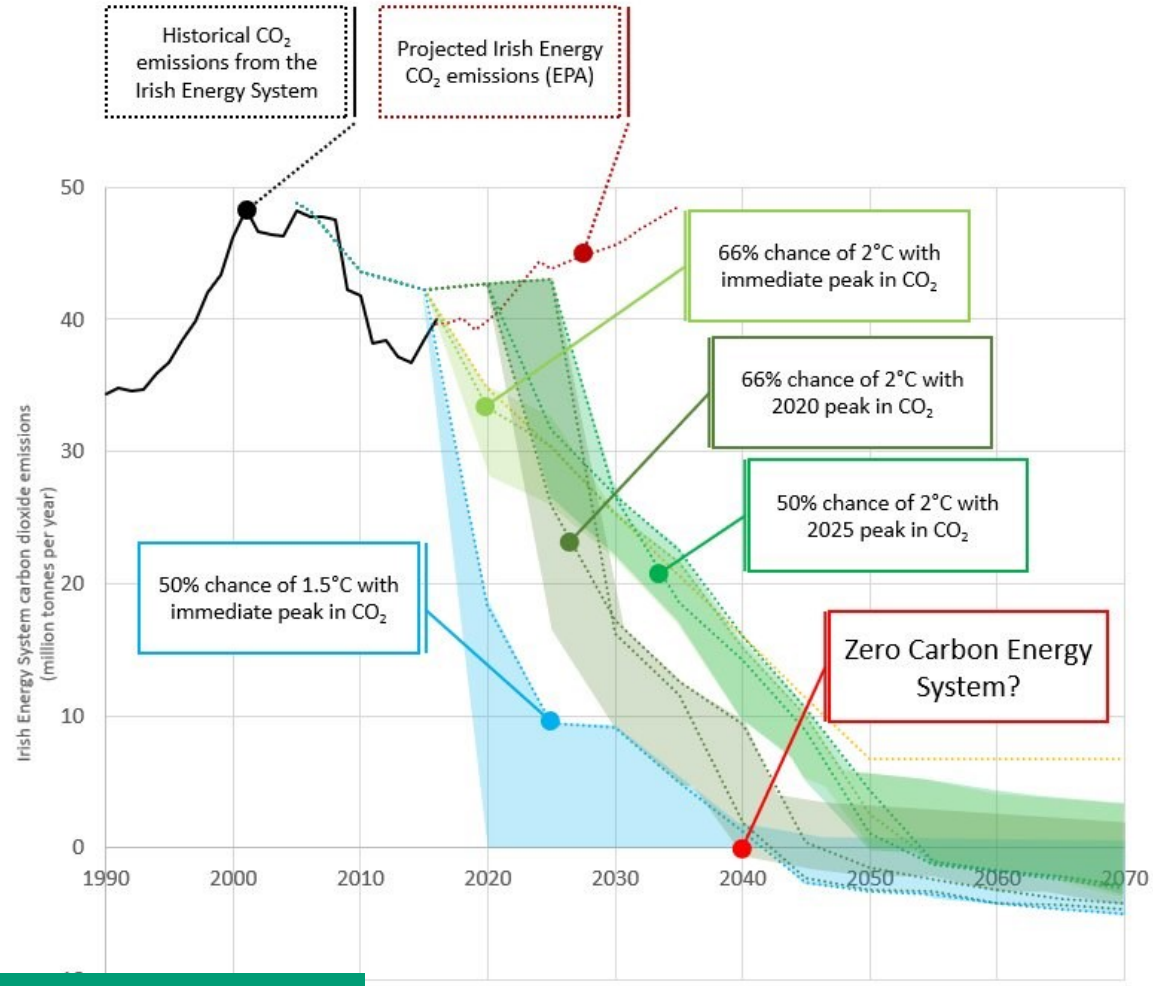
What I stand for …

Cause for concern





Glynn et. al. (2018)

Six years worth of current emissions would blow the carbon budget for 1.5 degrees (IPCC)

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EPA climate lecture

Professor Hugh Montgomery

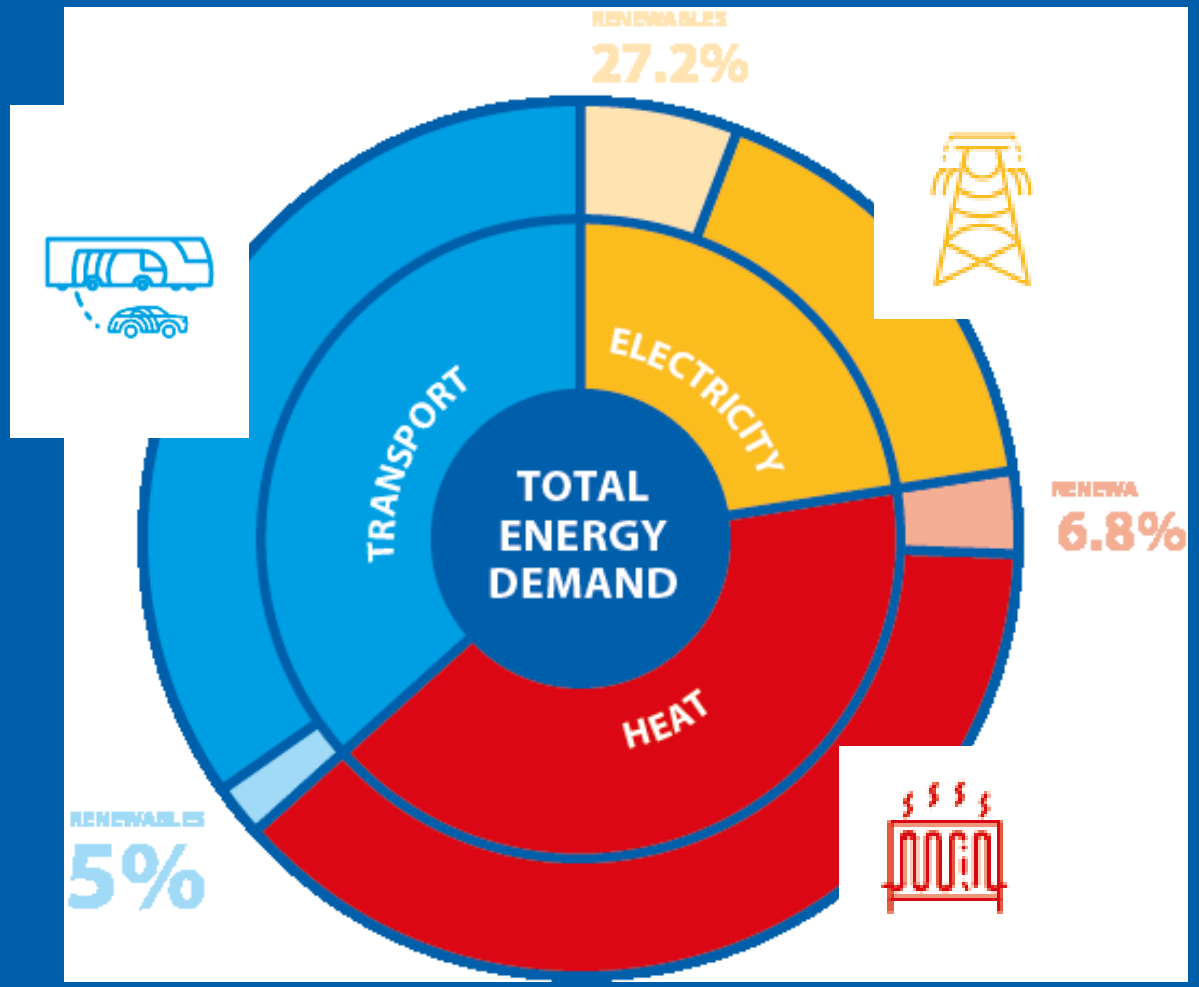
UCL Institute for Human Health and Performance

A life changing hour


© Reuters/E. De Castro

Sustainable energy progress in Ireland

Trends and Progress towards Renewable Targets - 2017



89% of our energy from fossil fuels

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Actions and anticipated impacts 2020

- Over 400,000 homes upgraded
- Thousands of businesses
- Strong building regulations
- Public sector action
- Motor tax measures
- Promoting EV's
- Wind

Renewables avoid ~ 4 Mt CO_2

Efficiency saving ~ €1 billion

Between 12.7% and 14% renewables by 2020

16% efficiency savings

Between 0% and 1% below 2005 non-ETS emission (EPA, 2018)

Target 20%

Anticipated impacts 2030

National Development Plan 2018 - 2027

- 45,000 homes to min B rating
- Upgrades to public and commercial buildings
- 500,000 EVs by 2030
- RESS
- Support Scheme for renewable heat
- 170,000 homes off oil
- Off coal and peat
- No sales of non-zero emission cars after 2030
- Public transport investment
- + .. + .. +

Between 24% and 27% renewables by 2030

25% efficiency savings

47 Mt cumulative shortfall on 2030 target (pre-NDP impacts) (EPA, 2018)

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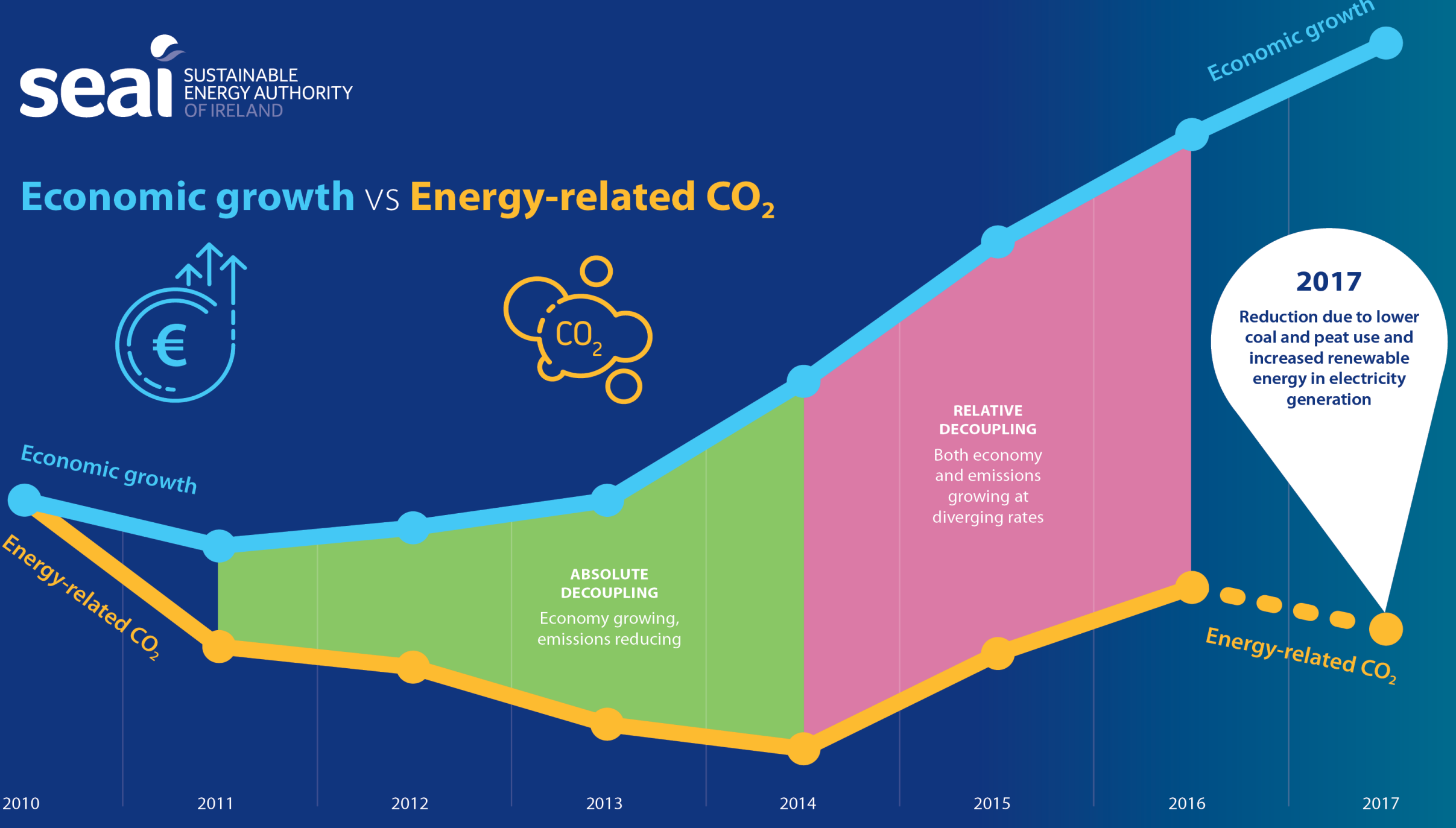
Economic growth vs Energy-related CO_2



A growing movement …

Political momentum

Recent government action

- National Development Plan
- National Energy and Climate Plan (December 2018)
- Support Scheme for Renewable Heat
- Climate Action Fund
- Community involvement in renewable energy projects
- SEAI budget increased
- Community support schemes
- Carbon tax
- Action Plan for climate
- Divestment Bill
- Proposals for keeping fossil fuel in the ground, just transition from fossil fuels
- Enhanced household and business supports
- …

Offshore wind turbines
growing by leaps and bounds

Vindeby
Year: 1991
Diameter: 35m
Height: 35m
Capacity: 0.45MW

Middelgrunden
Year: 2001
Diameter: 76m
Height: 64m
Capacity: 2.00MW

Nysted
Year: 2003
Diameter: 82m
Height: 69m
Capacity: 2.30MW

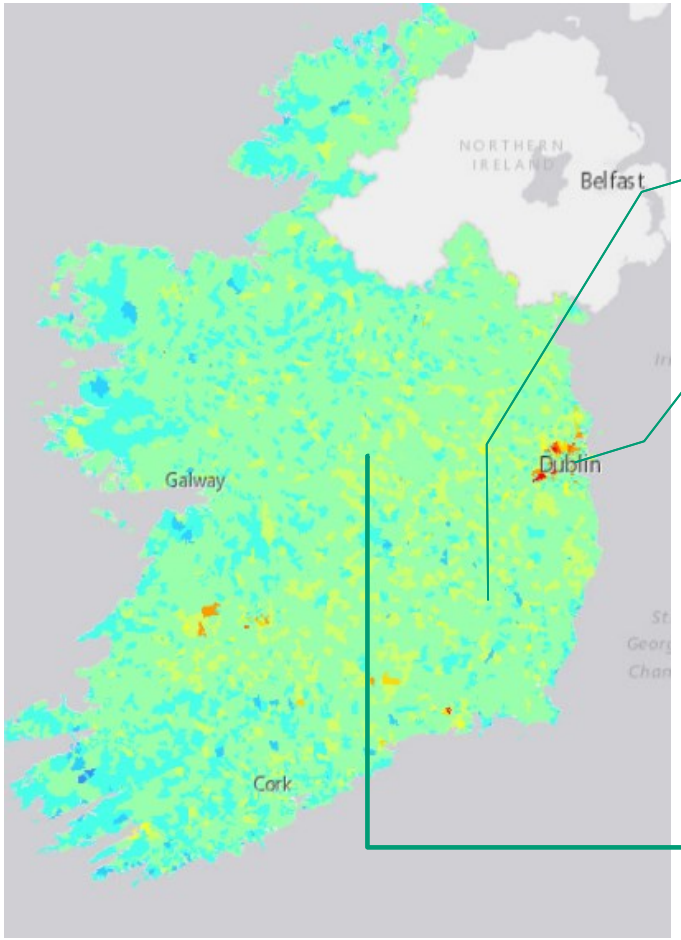
Horns Rev 2
Year: 2010
Diameter: 93m
Height: 68m
Capacity: 2.30MW

Anholt
Year: 2013
Diameter: 120m
Height: 82m
Capacity: 3.60MW

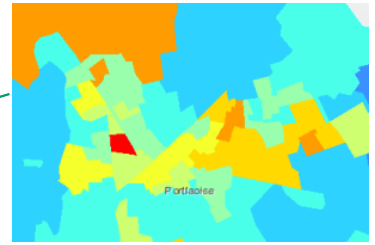
Westermost Rough
Year: 2015
Diameter: 154m
Height: 102m
Capacity: 6.00MW

Burbo Bank Extension
Year: 2017
Diameter: 164m
Height: 113m
Capacity: 8.00MW

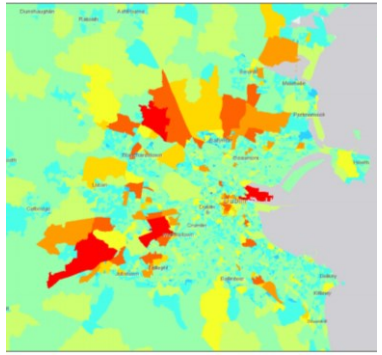
District heating - areas of high density demand



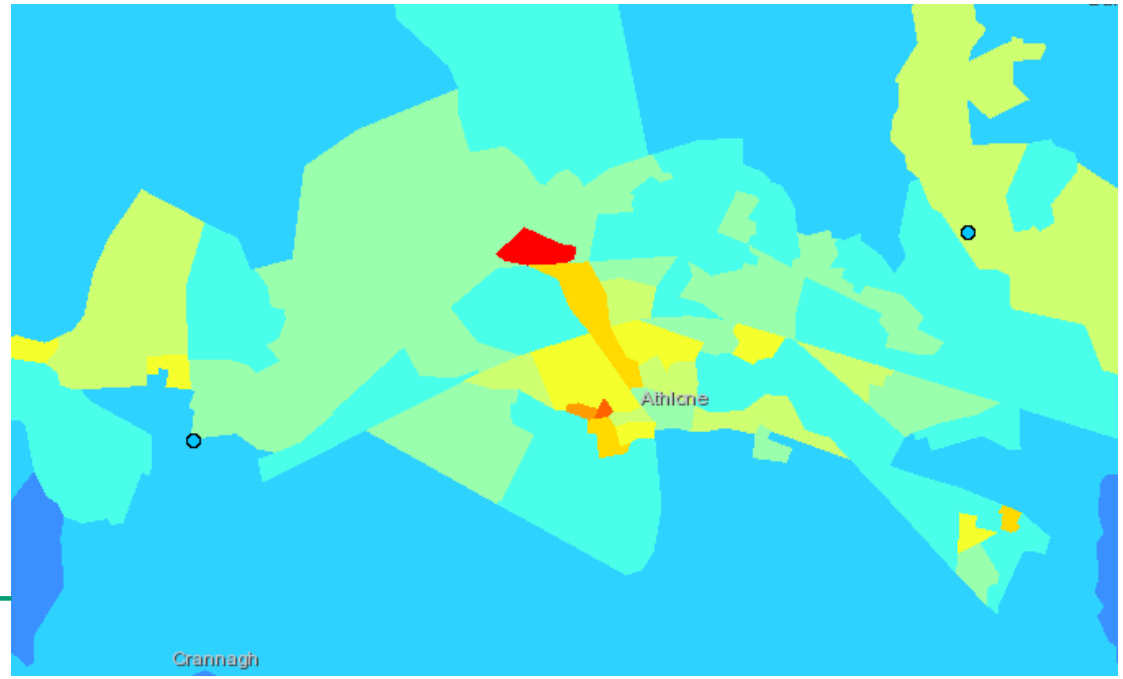
Portlaoise



Dublin



Athlone



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Transport

Cycling and walking

Game changer

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210 communities
Over 10,000 people

Energy Master Plans

€125 Million in grant support

Caused:

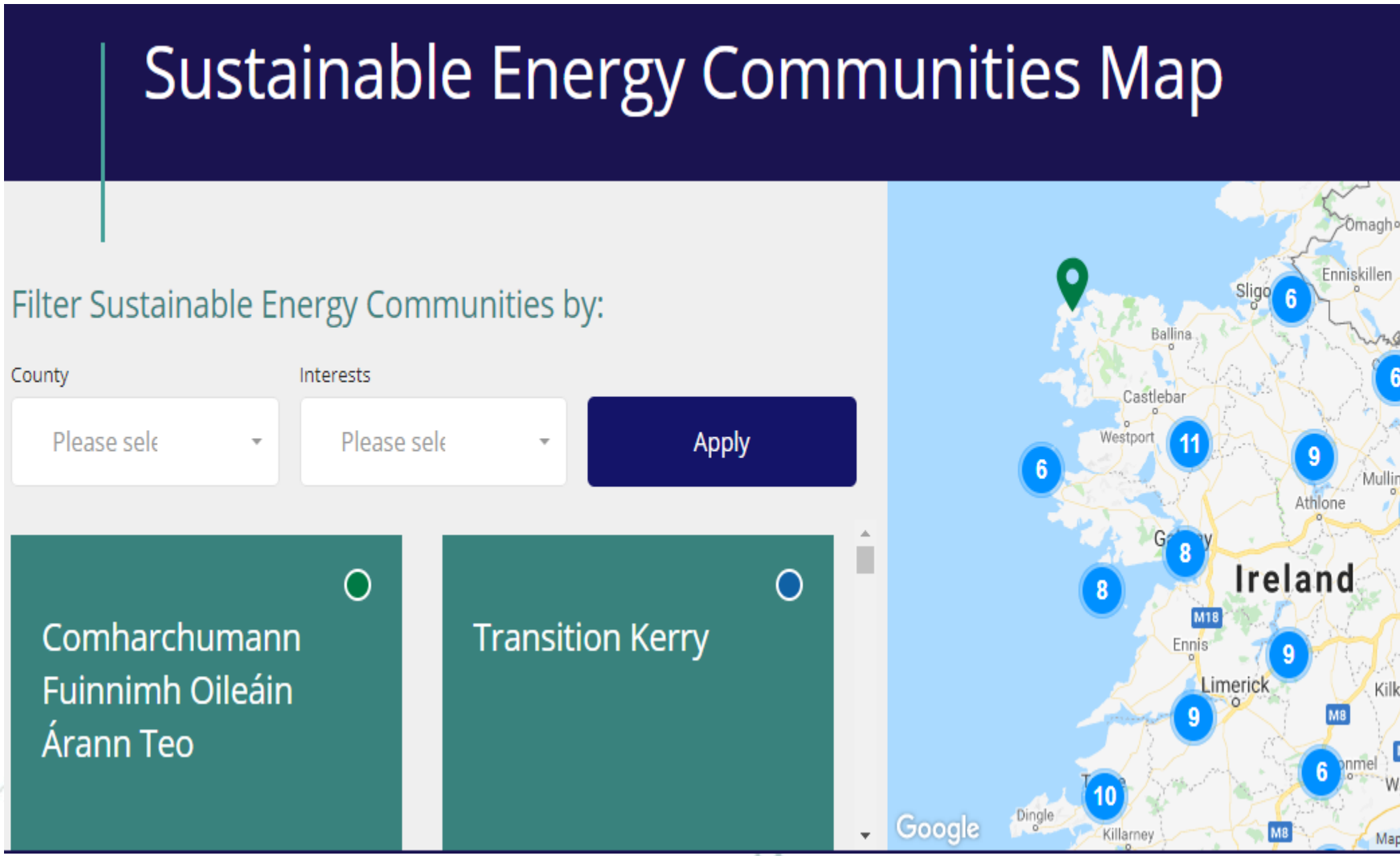
17,000 home upgrades

2000 Non domestic upgrades

540 GWh saved / 130,000 tCO_2

€300 Million Invested

Thousands of conversations



Power of youth …

*“We children don't usually do what you grown-ups tell us to do. We do as you do. And since you don't give a **** about my future. I don't give a **** either. My name is Greta, I live in Sweden and I'm 15 years old. I refuse school for the climate until election day …”*

@GretaThunberg

Australian students plan school strikes to protest against climate inaction

Hundreds say they will skip school, urging politicians to treat climate change as an emergency

Teaching Sustainability


'An anguished journey into the heart of the climate crisis.'
Naomi Klein
CLIMATE
Generation
Awakening to Our Children's Future


SHARING
KNOWLEDGE
IS POWER

SEAI
Taking a stand for a sustainable energy future

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The Sustainable Energy Authority of Ireland is partly financed by Ireland's EU Structural Funds Programme co-funded by the Irish Government and the European Union.

Let's be embarrassing. Let's break the silence, however uncomfortable it makes us and others feel. Let's talk about the great unmentionables: just climate breakdown, but also growth and consumerism. Let's create the political space in which well-intentioned parties can act. Let us ta a better world into being.

George Monbiot (20

Overview

- What SEAI stands for
- Targets … near and long term
- Progress on sustainable energy
- Challenges and opportunities
- Making it happen

Electricity

Social acceptance and planning

- Local Area Renewable Energy Strategies
- Mandatory community opportunities
- Market price for small-scale and microgeneration

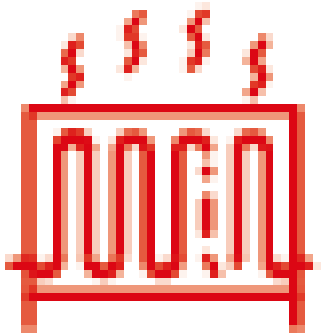
Scaling up offshore

- Huge potential
- Renewable Energy Support Scheme
- Planning and regulation - inshore, plus offshore needed

Technical grid challenges

- Accommodating a high level of renewables
- Ireland leading the world
- DS3 – enterprise opportunities

Heat



Reducing demand

- Cheapest, no regrets option
- >1 million homes and buildings need upgrade. Social housing
- Challenge – expensive

Heat networks

- Using waste and environmental heat
- Huge opportunity – low base
- Reducing risk - empowering local authorities

Decarbonisation

- Electrification – e.g. HP replacing oil boilers
- Using waste products to produce biomethane. Care needed!
- Sustainability criteria key

Transport

Biofuel blends

- Invisible..
- Sourcing biofuels / sustainability criteria
- Currently heading for 10% of road fuel from RES (by energy)

Electric vehicles

- Target 500,000 by 2030
- Strong government commitment
- Charging infrastructure

Modal shift

- Significant public transport sector investment
- Behaviour programmes could support
- Active travel, cycling infrastructure

Money

- Government funding (€105 million in 2017)
- Climate Action Fund
- Green Bonds / divestment
- Innovative finance
- Allocation to RD&D expanding
- Carbon tax

Other barriers … time, information, hassle factor, investment preferences ... etc.

People

- Mobilising the masses
  - Top-down and bottom-up (communities)
- Recognising the opportunities
- … connected to the constraints
- Inclusion and empowerment