# 24th April 2019



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ESTG Annual Conference 2019, Portlaoise

### Climate Change – the Challenge

#### Greenhouse gases – causing Global Warming

- Carbon dioxide from fossil fuels gases last indefinitely in atmosphere
- Methane and NOx from agriculture methane very damaging but short lived
- Safe stopping distance is very long

#### Facing dramatic changes as a result of human behaviour

- Changes are happening now
- More will take decades to play out

#### Impacts will become more severe as century progresses

- The burden will fall more heavily on coming generations
- Reason for taking action altruism, avoid impacts.
- A moral question
- However there will also be immediate benefits for us from action today— air quality, better insulated homes and more comfortable etc.

### Climate Change – the Challenge

### Challenge for policy

- Over the next 50 years the world economy must shift from fossil-fuels to sustainable alternatives to reduce emissions
- The sooner the better
- For other policy challenges can form coalition of beneficiaries
- Take action on climate change today many of the biggest beneficiaries are not yet born and have no votes
- In some cases significant costs today to avoid higher costs in future

### **Communicating Climate Change Challenge**

• The Science is well understood, but complex

#### No simple answer

No "silver bullet", but urgent action needed

#### Many distractions

- Brexit, Tracker mortgages, Children's hospital etc.
- Politicians are human and can only work 24 hours a day. Getting necessary attention is difficult.

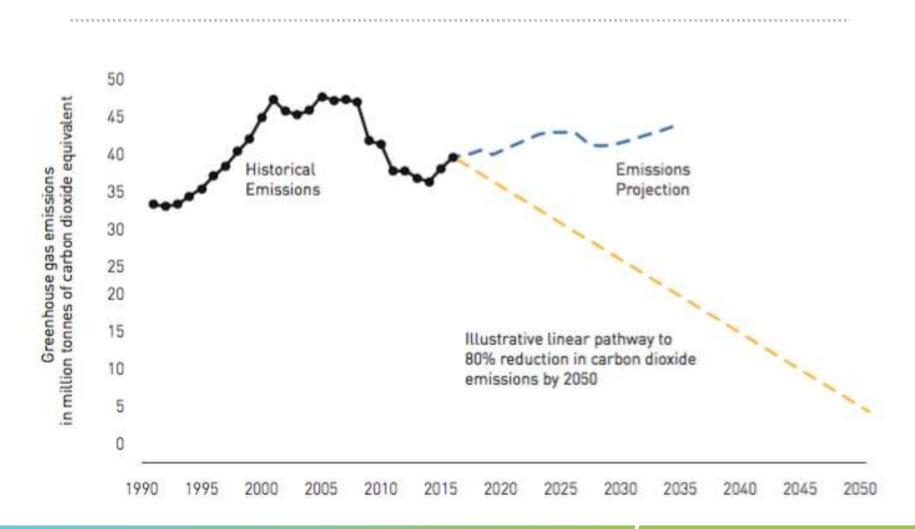
#### How to communicate

- Human behaviour complex response to information
- Ability of people to absorb information
- Moment of inspiration does not necessarily produce lifetime of action
- The role of the market as a simple signal
- However, the market is always imperfect. Many other approaches needed as well.

# Emissions & Projections (1/2)



# Progress Against Targets (1/3)



# Key Messages (1/6)

- 1) Irish greenhouse gas emissions are rising rather than falling. Ireland is completely off course in terms of achieving its 2020 and 2030 emissions reduction targets.
- 2) The Council welcomes the National Planning Framework and the National Development Plan: potentially significant contributions to transition but robust implementation and monitoring will be key to achieving progress.

# Key Messages (2/6)

- 3) Essential that government spells out costeffective pathway(s) to decarbonisation. Since its inception in 2016 the CCAC has sought this essential map. Without such a map it is impossible to assess the likely success of policies and what more needs to be done.
- 4) Setting an appropriate price for carbon is an essential first step to moving Ireland onto a sustainable path

# Key Messages (3/6)

- 5) CCAC recommended that the carbon tax be raised to €30 per tonne in Budget 2019 rising to €80 per tonne by 2030. DoPER draft guidelines for investment implies a price today of €80
- 6) The current carbon price level in the EU Emissions Trading System is too low to induce the essential decarbonisation of electricity generation. Ireland should join with other EU states in NW Europe to introduce a carbon price floor

# Key Messages (4/6)

- 7) The commitment to end the burning of coal at Moneypoint by 2025 is welcome. Need to spell out plan today
- 8) Planned support for biomass co-fired with peat to generate electricity will keep peat-fired electricity generation for the 2020s, significantly increasing GHG emissions. Very harmful (and expensive) subsidy.
- 9) Need to define decarbonisation objective for agriculture and implement policies to achieve it

# Key Messages (5/6)

- 10) Recent extreme weather events highlight the need to prepare and invest in becoming more resilient.
- 11) The Council welcomes the National Adaptation Framework which offers a platform for shared understanding of the challenges.
- 12) Adaptation requires partnership between government, the public and the private sector.

# Key Messages (6/6)

### 13) A "Just" Transition:

- Need to compensate those on low incomes who may suffer from tackling climate change or who may lose their jobs
- Need to support developing world in decarbonising and adapting
- Supporting technological development essential part of the solution

### Carbon Tax - 1

#### Carbon Tax is a vital instrument

- Signals to us all that we should consume and emit less
- Easy to understand

### Government gets the revenue

- Use it to compensate vulnerable & invest in reducing emissions
- If used to reduce other damaging taxes GNP/GNI higher
- Or a "cheque in the post"

### Sends a message to invest in R&D

- Companies profit if they invent carbon free technologies
- Likely high price of carbon (tax) drives research
  - Electric cars, solar electricity, wind, etc.

### Carbon Tax - 2

#### Example of why we need a carbon tax

- Need Households to invest many billions by 2050 to eliminate carbon emissions from homes
  - Bulk of this cost to be carried by households
  - It must be profitable for them to invest over next 30 years
  - Hence a carbon tax is essential
  - However, this will not be enough need other policies

### Carbon Tax today €20 a tonne of carbon dioxide

- Result: adds €2.10 per 40kg bag of coal, €0.45 per 12.5kg bale of briquettes
- CCAC Recommended that the carbon tax should be raised to €30 per tonne in Budget 2019 rising to €80 per tonne by 2030

### Agriculture

- Accounts for more a third of emissions. Cannot avoid taking action to ensure that agriculture is no longer contributing to climate change
- How can we ensure a reasonable standard of living for farmers along with environmental sustainability?
- Need to implement Teagasc's suggestions, some of which are win-wins – farmers incomes will rise and emissions fall. e.g:
  - Change in fertiliser could reduce emissions by 0.5M tonnes at limited cost
  - Switching from beef to biomass or forestry can increase incomes and reduce emissions

### Success story: renewable electricity

### Encouraged by a guaranteed price

- Accounts for a growing share of electricity
  - Objective 40% by 2020
- Guarantee financed from our electricity bills
  - Today Public Service Obligation c. €80 a year
  - Some of this subsidises renewables
- Up to 2012, cost of subsidy was more than offset by lower electricity prices.
  - Tackling climate change actually saved us all money

#### We are human

### Not just driven by the market and prices

How we learn and behave is affected in different ways

### • Examples:

- Poorer households unable to invest targeted support
- We may forget the price signal smart meters
- Public transport & denser development: less commuting
- Making it "easy" insulating our homes

### **Conclusions**

- Climate change poses unique challenge for society
  - Need to cut our emissions in 2050 by 80%
- Leadership & a strategy is needed
- Currently we are a laggard not a leader
- The NMP is only a beginning
  - We must rapidly introduce new policies to close gap
- Make the market part of the solution
- Ireland must work with EU & UN
  - to implement Paris Agreement