Ireland. Greenhouse gas emissions are primarily regulated at an international level under the UN Framework Convention on Climate Change and at European level under the EU Effort Sharing Decision and EU Emissions Trading Scheme.

The EPA prepares greenhouse gas emission inventories and projections annually for all relevant economic activities in Ireland. Greenhouse gas emissions are primarily regulated at an international level under the UN Framework Convention on Climate Change and at European level under the EU Effort Sharing Decision and EU Emissions Trading Scheme.

The simple guide to Ireland’s greenhouse gas emissions

**INTRODUCTION**

The greenhouse effect

Greenhouse gases are gases that absorb and emit infrared radiation. About half the solar radiation reaching the Earth’s surface is absorbed and re-emitted in all directions by greenhouse gases. The effect of this is to warm the Earth’s surface and the lower atmosphere. The main greenhouse gases are water, carbon dioxide, methane, nitrous oxide and fluorinated gases.

Inert concentrations of heat-trapping greenhouse gases have increased over the period of being trapped in the atmosphere.

**Sources of greenhouse gases**

- Agriculture
- Industry
- Transport
- Residential
- Commercial services
- Public services
- Non-energy intensive industry
- F-gases
- Waste

**Trends in greenhouse gases**

**Non-emissions trading sector - 2020 targets**

Separate EU 2020 targets apply to the non-emissions trading sectors: agriculture, transport, residential, non-energy intensive industry, F-gases, waste, commercial services and public services and the EU emissions trading sectors (power generation and heavy industry).

- Agriculture: 20% reduction in emissions from 1990 levels by 2020
- Industry: 80% reduction in emissions from 1990 levels by 2020
- Transport: 10% reduction in emissions from 1990 levels by 2020
- Residential: 20% reduction in emissions from 1990 levels by 2020
- Commercial services: 20% reduction in emissions from 1990 levels by 2020
- Public services: 20% reduction in emissions from 1990 levels by 2020
- Non-energy intensive industry: 20% reduction in emissions from 1990 levels by 2020
- F-gases: 80% reduction in emissions from 1990 levels by 2020
- Waste: 50% reduction in emissions from 1990 levels by 2020

**In conclusion**

We must invest in structural and behavioural change to enable the transition to carbon neutral, climate resilient Ireland. These changes include the rapid decarbonisation of energy and transport and the adoption of sustainable food production, management and consumption systems.

*Based on provisional figures for 2017*