Assess future emission reduction potentials and costs across economic sectors

A unique service for GHG Marginal Abatement Cost Curves

Enerdata uses its 30 years of forecasting expertise and globally recognised POLES Model to create a unique online service offering instant access to long-term Marginal Abatement Cost Curves (MACCs).

MACCs reflect the different levels of emission reductions that can be reached at various carbon price levels at a given year, by country and by sector. All MACCs are derived from comprehensive baseline scenarios, which can be chosen among contrasted variants. Enerdata MACCs are being used around the world by major governmental bodies, energy companies and industries for international climate negotiations.

Why Subscribe?

• Unique insight and comprehensive data from recognised MACCs experts worldwide
• Based on the time-tested and reputable POLES Model
• 24/7 online access
• Unlimited Excel export
• Regular updates
Service Overview

- **Long-term Marginal Abatement Cost Curves (MACCs)** produced for **four base years** (2025, 2030, 2035, 2050)
- MACCs generated by the **globally recognised POLES Model**
- **65+ countries/regions** covered
- GHG emissions by sector aggregates: power, industry, transport, residential & services and total overview
- **15 sub-sectors** covered: energy, steel, chemistry, industry processes, households, tertiary, etc.
- Output data: projected CO₂/non-CO₂ reductions according to carbon prices
- Baseline Scenarios relying on selected EnerFuture reference scenarios
- Modelling methodology included
- To go beyond MACCs, drill down to detailed technological options though our AERO optional module

Who Needs MACCs?

MACCs is a very powerful tool used by policy makers, researchers and business analysts to assess climate policies, evaluate their costs and efficiency as well as to simulate carbon markets such as the EU ETS.

Government Agencies
To shape CO₂ mitigation policies and set targets

Energy Companies
To evaluate future revenues versus carbon constraints

Industry
To formulate strategies for carbon trading & emission reductions

Energy Traders
To evaluate CO₂ emission credits, prices and volumes

Online Interface

Enerdata - EnerFuture MACCs
Enerdata’s **EnerFuture** service generates MACCs using the POLES-Enerdata Model, they are available for four time periods (2025, 2030, 2035 and 2050), 69 countries/regions, 15 sectors and three contrasted baseline scenarios.

### Option 1: AGGREGATED Sectors (CO₂)
- Energy
- Industry combustion
- Industry processes
- Residential and services
- Transport

### Option 2: DETAILED Sub-Sectors (CO₂)
- Power generation, other energy Transformation
- Steel, non-metallic minerals, chemistry, other industry
- Households, tertiary, agriculture
- Road, air, other transport

The additional data series for each country/region covers non-CO₂ GHGs: CH₄, N₂O, SF₆, HFCs and PFCs.

### Methodology

On a MAC Curve, the X-axis represents the emissions reduction, the Y-axis the associated carbon value; the area under the curve is the resulting total abatement cost.

### Need Further Insight? Enerdata GHG Mitigation Toolbox

If you need a more integrated view of future markets, Enerdata offers the **GHG Mitigation Toolbox** as a consulting service. Using a variety of tools, Enerdata is able to employ its MACCs in order to generate market outlooks for the advanced stages of your organisation’s carbon reduction strategy and implementation process. For more information please contact: [consulting@enerdata.net](mailto:consulting@enerdata.net).

**EVALUATE model - Economic Valuation for Trading Emissions:** Analytical tools allowing simulating countries’ pledges for emission reductions. User enters pledges and the tool provides powerful indicators (e.g. reductions, emission intensity, total costs, marginal costs, global emissions, gap to IPCC scenarios, ...)

**CMT model: Carbon Market Tool:** Detailed analysis (by country and by sector) of existing and fictive carbon markets worldwide. Provides multiple design options for carbon market configurations and produces the resulting carbon price in each market up to 2050.

**AERO model: Abatement Effort, Reduction Options:** Help identifying technological options that will develop under a carbon price (or emissions cap). Used by private companies to highlight market opportunities and by governments to analyse NAMAs and INDCs.
About Enerdata

Enerdata is an energy intelligence and consulting company. Our experts help you to tackle key energy and climate issues and make sound strategic and business decisions. We provide research, solutions, consulting and training to key energy actors worldwide.

Enerdata Offices

UK
23 Austin Friars,
London, EC2N 2QP
United Kingdom
Tel: +44 203 445 5847

FRANCE
47 av. Alsace Lorraine
38000 Grenoble
France
Tel: +33 4 76 42 25 46

SINGAPORE
51 Changi Business Park Central 2
#04-05 The Signature
Singapore 486066
Tel: +65 6701 8693

More Enerdata Information Services

Global Energy & CO₂ Data: Regularly updated global energy market database providing supply, demand, and prices for all energy sources by sector, plus GHG emissions. Covering 186 countries from 1970 onwards.


EnerTram - Energy Transition Monitoring: In-depth, analytical, country reports on the energy transition in emerging markets.

Power Generation Watch: Daily monitoring of key updates in the power generation and storage equipment markets.

EnerMonthly: Monthly updates with detailed information on production, imports, exports and consumption for over 40 OECD and non-OECD countries.

EnerFuture: Annual forecasts through 2050 (based on the globally recognised POLES model) for energy demand, prices, and CO₂ emissions by sector and for all energy sources. Power generation forecasts by fuel source.

Power Price Projections: Three sets of annual wholesale electricity price projections backed by the globally recognised POLES model.

EnerFuture MACCs: Assess climate policies, evaluate cost and efficiency, and simulate carbon markets with our CO₂ Marginal Abatement Cost Curves tool.

Odyssee: Unique database on energy consumption by end-use for the EU and Norway. Exclusive energy efficiency indicators.

EnerDemand: Analyse energy consumption and efficiency trends across the world with energy consumption data by sector and end-use, efficiency trends and drivers.

Country Energy Demand Forecasts: Energy demand forecasts for oil, gas, coal, and power consumption by country, by sector, and by usage through 2030.

Power Plant Tracker: Screen, monitor, and analyse the development of power generation assets. Powerful embedded analytics. Exclusive insight on Levelized Cost of Electricity and Capital Expenditure from our CAPEX & LCOE module.

World Refinery Database: Monitoring of new and existing refineries.

World LNG Database: All key information and data about world LNG markets.

Key Energy Intelligence: Search by energy topic, energy source (electricity, natural gas, oil, coal, biofuels), utility company (44 included), or CO₂ emissions.