



CAPEX and LCOE data by technology, region, and country

Determine **technology maturity** and **competitiveness**.

Weigh **investment decisions** leveraging thousands of verified and updated data points.

Benchmark your projects.

Benefits:

- Determine which **technology** and which **country/region** re best to invest in
- **Reliable and meaningful data:**
 - Country-level averages from ministries, energy agencies and associations
 - **Thousands of data points** from Power Plant Tracker, the industry's most up-to-date power generation database
- No estimates, **only sound data**
- **Exclusive data and indicators** available in just a couple of clicks
- Designed, processed, tested and checked by Enerdata experts

Features:

- **G20 countries covered**, sortable by countries or world regions
- Energies and technologies covered:
 - **Renewables for LCOE:** Biomass, Geothermal, Hydropower, Solar (CSP, residential, commercial, industrial, and large industrial PV), Wind (off-shore, on-shore)
 - **Renewables and thermal for CAPEX:** Coal, Gas, Oil, Biomass, Hydro, Wind, Solar
- Quarterly updates
- **Easy Excel query**
- **Customisable parameters** (discount rates, load factors)
- **Export data in .csv format** to integrate with your own databases and models

Capital Expenditure (CAPEX):

Overview

The **Power Plant Tracker CAPEX tool** provides a comparison of the **initial investments for power generating assets** for more than 5 200 projects worldwide (among which over 1 900 are still under development). CAPEX is expressed in USD2015/kW **to balance the effects of inflation** for earlier

Projects' features

1. Countries | 2. Energies | 3. Technologies | 4. Projects status

All Europe CIS North America Latin America Asia Africa Middle-East

Select all European countries

EU-28 | Other Europe

Select All

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia

Select All

- Albania
- Bosnia-Herzegovina
- Iceland
- Kosovo
- Macedonia
- Norway
- Serbia
- Switzerland
- Turkey

● Coal

● Gas

● Oil

● Biomass

● Hydro

● Wind

● Solar

● Off-shore

● On-shore

● Operational

● Projects

● All

Validate

Calculations

Overnight costs are calculated by dividing the initial investment costs of a project (in USD2015) by its generating capacity (in MW). For projects commissioned prior to 2015, we apply deflation rates from the **U.S. Producer Price Index and Consumer Price Index** to both **technological and structural costs**.

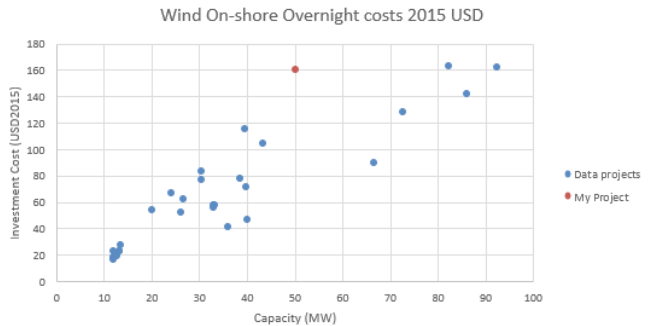
Enter your project features :

Project name :

Capacity (MW) :

Initial Investment (USD) :

Energy Selected : *Wind On-shore*



Data Sources

The information is derived from **Power Plant Tracker**, which leverages, validates, and regularly updates data from power utilities, statistical offices, energy regulators, ministries, and network operators, as well as specialised and international press.

Levelised Cost of Electricity (LCOE):

Overview

LCOE represents the net value to the electricity supplier of a generating asset over its lifetime. The new **Power Plant Tracker LCOE module** enables you to **compare the cost of electricity production for renewable energies** in all **G20 countries**, using either the default calculation assumptions, or your own.

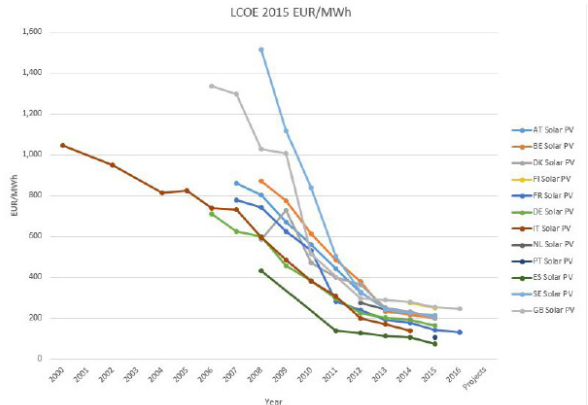
Calculations

Enerdata calculates LCOE through a formula that includes the following:

initial investment costs, decommissioning costs, **variable operating costs** (mainly fuel costs), **fixed operating costs** (wages, rent etc...), **power generation** (load factor), the discount rate, and the asset's expected lifetime.

The **load factor** is calculated by dividing the average annual number of hours of generation for a given power plant by the number of hours in a year.

A default discount rate has been set, but users can customise it.



Data Sources

Enerdata checks and aggregates **country-level averages** provided by the IEA, renewable energy associations, government bodies, market operators, and statistical agencies.

In case no official statistics are available, we deduce country averages leveraging Power Plant Tracker information.

Countries

All G20 Europe America Asia & Pacific Africa & Middle-East

Check All

- Austria
- Belgium
- Denmark
- Finland
- France
- Germany
- Ireland
- Italy
- Netherlands
- Poland
- Portugal
- Spain
- Sweden
- Turkey
- United Kingdom

Technologies

Check All

- Biomass
- Geothermal
- Hydropower
- Solar CSP
- Solar PV
- Solar PV Residential
- Solar PV Commercial & Industrial
- Solar PV Large Industrial
- Wind Off-shore
- Wind On-shore

About Enerdata

Enerdata is an energy intelligence and consulting company. Our experts help you 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.

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International Organizations and Government Bodies
ADB Asian Development Bank | European Commission | WORLD ENERGY COUNCIL | GECF | JBIC JAPAN BANK FOR INTERNATIONAL COOPERATION

Research Centres and Universities
UNIVERSITÉ DE BORDEAUX | BOSTON UNIVERSITY | ENERGY STUDIES INSTITUTE | WISCONSIN | KAPSARC | Fraunhofer

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.

Global Energy Research: 110+ country reports. Daily news feed curated by analysts.

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

EnerFuture: Annual forecasts up to 2040 (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.

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

Odyssey: Unique database on energy consumption by end-use for the EU, Serbia, Switzerland, 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 usages through 2030.

Power Plant Tracker: Screen, monitor and analyse the development of power generation assets. Powerful embedded analytics. Exclusive insight on Levelised Cost of Electricity and Capital Expenditures in the CAPEX & LCOE Module.

World Refinery Database: Monitoring of new and existing oil refineries.

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

Key Energy News: Search a curated archive of intel by energy topic, energy source (electricity, natural gas, oil, coal, biofuels), utility company (44 included), or CO₂ emissions.