



Italy

As a member state of the European Union (EU), Italy has implemented a series of EU directives relating to power plant emissions into national law, starting with the Industrial Air Pollution Law of 1988 (a transposition of EU directive 84/360/EC). This was replaced by the 2006 implementation of Large Combustion Plant Directive (2001/80/EC), followed by the Industrial Emissions Directive (IED, 2010/75/EU) which entered Italian law as Decreto Legislativo 46/2014, introducing stricter emissions standards and incorporating the previous regulations. The IED emissions limits must be met by plants from January 2016, but individual facilities may choose to ‘opt out’ and limit their operating hours to a maximum of 17,500 hours until 2023.

In Italy, the majority of coal power plants are already well-equipped with controls for NO_x, SO₂ and particulates, and have been able to ‘opt in’ to the new legislation without further modification. Italy has not applied for a transitional national plan (TNP), which permits the use of alternative, mass-based emission limits for some EU member states until 2020.

The following emissions standards apply to coal, lignite and other solid fuels (excluding biomass and peat) and can be found from page 53 of Decreto Legislativo 46/2014, available, in Italian, at: http://www.arpa.veneto.it/servizi-ambientali/ippc/file-e-allegati/normativa/Recepimento%20direttiva%20IED_GU-72-20140327_SO%2027-L-1.pdf. Some of the emission limits are stricter than the EU IED.

SO₂ emission limits

Nominal thermal power output, MW _{th}	Plants built before 2013, mg/Nm ³	Plants built after 2013, mg/Nm ³
50-100	400	200
100-300	250	100
>300	200	75

Exceptions: Plants built prior to 2002 can meet a limit of 800 mg/Nm³, provided they do not operate for more than 1500 hours as a rolling average over 5 years, or over 3000 hours in a single year.

If able to demonstrate that these emissions limits are impossible to meet due to fuel characteristics, plants using domestic solid fuels have the option of instead meeting desulphurisation rates given in the following table:

Nominal thermal power output, MW _{th}	Plants built before 2002	Plants built before 2013	Newer plants
50-100	80%	92%	93%
100-300	90%	92%	93%
>300	96% (95% for plants firing oil shale)	96%	97%

Operators of such domestic coal plants are required to present a yearly report on the sulphur levels of the fuel and the desulphurisation rate used as a monthly average.

NOx emission limits

Nominal thermal power output, MW _{th}	Plants built before 2013, mg/Nm ³	Newer plants, mg/Nm ³
50-100	300	150
100-300	200	100
>300	200	100

Exceptions: A limit of 450 mg/Nm³ can be applied to plants firing oil refinery residues which are >500 MW and built prior to 2002.

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Particulate matter emission limits

Nominal thermal power output, MW _{th}	Plants built before 2013, mg/Nm ³	Newer plants, mg/Nm ³
50-100	30	20
100-300	25	20
>300	20	10

Exceptions: A limit of 50 mg/Nm³ can be applied to plants firing oil refinery residues which are >500 MW and built prior to 2002.

National emission ceilings

EU member states are also required to limit total annual emissions of certain pollutants (SO₂, NO_x, volatile organic compounds, and ammonia) from all sectors to values set by the National Emission Ceilings Directive of 2001 (NECD, 2001/81/EC, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0081>). Having passed this directive into law as Decreto Legislativo 171/2004, Italy was required to form a programme for the progressive reduction of these emissions, whilst providing an annual inventory of emissions and projections for these species. The limits on coal plants laid out by the IED form part of the EU measures for meeting these annual totals.

EU Emissions Trading Scheme

Emissions of CO₂ from large sources (>20 MW_{th} net output) in EU member states are governed by the EU Emissions Trading Scheme (ETS) launched in 2005 (most recently amended by directive 2009/29/EC, <http://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0029>). The EU ETS is a 'cap and trade' system, which distributes a limited number of CO₂ emissions allowances between participating facilities. These can then be bought or sold according to the needs of an individual source. Recent revisions to the ETS include the auctioning of allowances rather than free allocation, and inclusion of other greenhouse gases, such as nitrous oxide.

Future legislation: LCP BREF

The emissions limits dictated by the IED (see tables) are based on the emissions thought to be practically achievable using 'best available technologies' (BAT), as laid out in a reference document prepared by a technical working group, which includes representatives of industries and environmental non-governmental organisations (NGOs). Known as the LCP BREF, a revision of this document with new, stricter emissions limits is currently in draft and scheduled to take effect from



2020. The proposed legislation will impose lower limits on SO₂ and NO_x emissions, as well as introducing limits on mercury emissions.

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emission standards