

**Parallel Report on SPAIN concerning air  
pollution and climate change**

submitted by the

**Instituto Internacional de Derecho y Medio  
Ambiente (IIDMA),**

and the **Center for International Environmental  
Law (CIEL)**

**Committee on the Rights of the Child**

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## **1. Submitting organisations**

This Parallel Report is submitted to the Committee on the Rights of the Child by the following organisations:

### **Instituto Internacional de Derecho y Medio Ambiente (IIDMA - International Institute for Law and the Environment)**

IIDMA is a Spanish environmental law non-profit organization founded in 1997 to contribute to environmental protection and sustainable development through the research, development, implementation and enforcement of the Law at all levels. IIDMA puts the law at the service of the environment using the rule of law tools. Since 2013, IIDMA is working to impel energy transition.

### **Center for International Environmental Law (CIEL)**

Since 1989, the Center for International Environmental Law (CIEL) has used the power of law to protect the environment, promote human rights, and ensure a just and sustainable society.

## **2. Introduction**

As recognised by the Committee on the Rights of the Child in 2016, “without a healthy environment a child cannot live or develop”.<sup>1</sup> In its report from the Day of General Discussion held in 2016 on Children’s Rights and the Environment, the CRC endorsed several recommendations to states, including the need for states to take steps to prevent causing or contributing to transboundary environmental harm that affects the rights of children abroad and the need for urgent and aggressive reductions in greenhouse gases, guided by the best available science.<sup>2</sup>

The adverse impacts of climate change constitute one of the most significant global threats for the enjoyment of human rights – especially those protected under the Convention on the Rights of the Child.<sup>3</sup> As noted by the Human Rights Council, children are among the most vulnerable to climate change.<sup>4</sup> The Committee on the Rights of the Child (CRC) has highlighted previously that climate change results in adverse impacts on many of the rights protected by the Convention on the Rights of the Child, including the rights to education, to the highest attainable standard of health, adequate housing, safe and drinkable water and sanitation, and food and nutrition security.<sup>5</sup> In its General Comment on the Right to Health, the Committee

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<sup>1</sup> Committee on the Rights of the Child, *Report from the Day of General Discussions "Children’s Rights and the Environment"*, (2016), page 9.

<sup>2</sup> *Ibid.*, at 29, 32 and 36.

<sup>3</sup> Office of the High Commissioner for Human Rights, *Analytical Study on ‘Climate change and the full and effective enjoyment of the rights of the child’*, UN Doc. A/HRC/35/13.

<sup>4</sup> Human Rights Council Resolution 32/33 (2016) and Resolution 35/20 (2017).

<sup>5</sup> See CRC Concluding Observations on Tuvalu (2013), Saint Lucia (2014), Jamaica (2015) and Kenya (2016).

identified climate change as “one of the biggest threats to children’s health and exacerbates health disparities”.<sup>6</sup>

States have legal obligations under human rights treaties to take action to protect the rights and best interests of the child from the actual and foreseeable adverse effects of climate change.<sup>7</sup> The CRC has also stressed that children’s health concerns must consequently be placed at core of national climate change adaptation and mitigation strategies.<sup>8</sup> This commitment is reiterated in the Paris Climate Agreement which explicitly emphasised the need for parties to the agreement to respect, promote and consider their respective obligations on human right, including the rights of the child, when taking action to address climate change.<sup>9</sup>

The magnitude of these impacts will continue to increase as temperatures rises. Consequently, governments must ensure that they reduce emissions of greenhouse gases in a manner that prevents the most dangerous levels of temperature increase and avoids the very serious threats to human rights including the rights of the child.

The scientific community has highlighted that an adequate level of emissions reductions in line with the temperatures goals of the Paris Agreement can only be achieved if emissions from fossil fuel consumption are drastically reduced – in particular from the combustion of coal as the most carbon-intensive source of energy.<sup>10</sup>

At the same time, it is essential that we deal with air pollution from different GHG and other pollutant gases such as particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>). These have serious impacts on our health and the environment, as well as on the economy. The main sources of pollution include industrial activities, the transport and energy sector. Pollution from the latter two is primarily the result of burning fossil fuels; coal being the main polluting fossil fuel in the energy sector. Despite being the most polluting source, coal still plays a significant role in the production of electricity around the world. Power generation is a major source of air pollution. Globally, coal accounts for three-quarters of the sector’s SO<sub>2</sub> emissions, 70% of its NO<sub>x</sub> emissions and over 90% of its PM<sub>2.5</sub> emissions<sup>11</sup>. This problem is particularly acute in some regions of Spain. The country

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<sup>6</sup> CRC General comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (art. 24) (2013)

<sup>7</sup> Office of the High Commissioner for Human Rights, *Analytical Study on ‘Climate change and the full and effective enjoyment of the rights of the child’*, UN Doc. A/HRC/35/13.

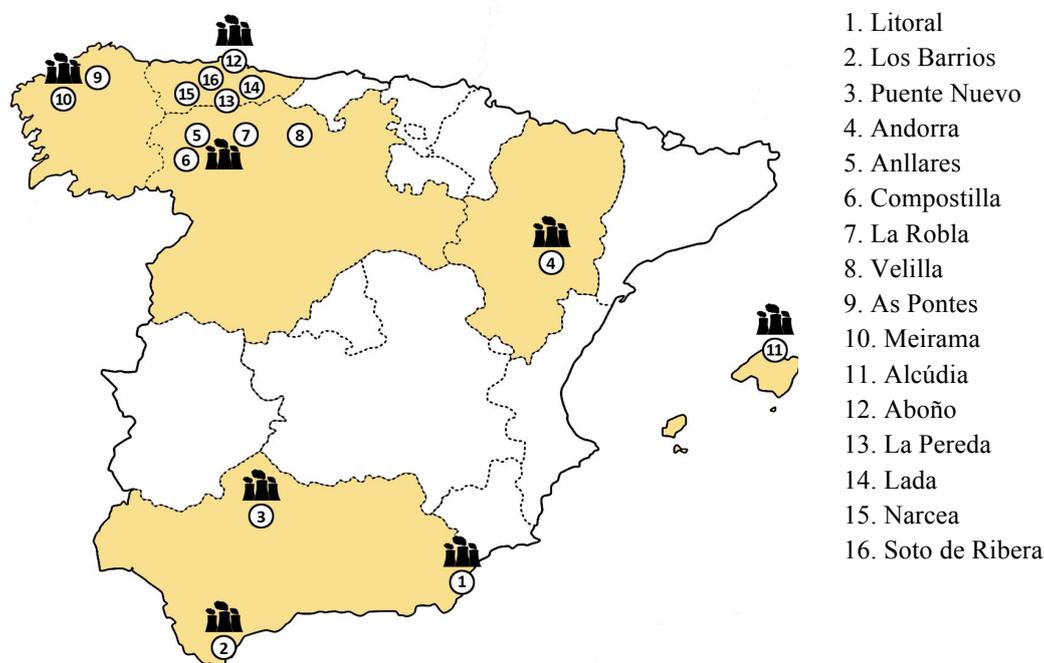
<sup>8</sup> CRC General comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (art. 24) (2013)

<sup>9</sup> Paris Climate Agreement (2015, in force 4 November 2016), preamble.

<sup>10</sup> See McGlade, C., & Ekins, P. (2015). The geographical distribution of fossil fuels unused when limiting global warming to 2 [deg] C. *Nature*, 517(7533), 187-190.

<sup>11</sup> International Energy Agency (IEA), *Energy and Air Pollution*, World Energy Outlook Special Report (2016), p. 143. Available at:

has 15 coal-fired power plants with an installed net capacity of around 10,004 MW. Most of these plants are located in the north of the Iberian peninsula, in the Autonomous Communities (AA.CC) of Asturias, Castilla y León and Galicia. The others are in Andalucía, Aragón and Balearic Islands.



**Figure 1: location of coal-fired power plants in Spain**

Despite being the most polluting source of generation, coal plays a significant role in the production of electricity in Spain. During the period from 2013 to 2015, this fuel has been the only source in the peninsular system that registered continuous growth of net generation and coverage of the annual energy demand.

In spite of the impacts that coal power plants cause on the rights of children, including their health, Spain is taking no measure to reduce those impacts. On the contrary, it is preparing a legal instrument in the form of a Royal Decree to avoid and/or hamper the closure of coal power plants. On 10 November 2017, a Spanish energy company filed its application to close its two remaining coal power plants. As a response, the Ministry of Energy, Tourism and Agenda Digital published the draft of that Royal Decree which will make very cumbersome the closure of a coal power plant mainly based on the energy price argument and the security of supply but disregarding the effects those plants have in the rights of children.

The CRC committed in 2016 to consistently link Concluding Observations on environmental issues to existing legal frameworks including States' commitments

under the UNFCCC.<sup>12</sup> The CRC further endorsed the recommendation that it should seek to “clarify the extent of States’ obligations relating to climate change and children’s rights, including with regard to mitigation (...)” taking into account the explicit reference to children’s rights and intergenerational equity in the Paris Climate Agreement.<sup>13</sup>

This report highlights concerns for the rights of the child associated with the energy and climate policies of Spain, including:

- a. the impact of atmospheric pollution generated by coal-fired power plants on the rights of children, in particular their right to the highest attainable standard of health as protected under article 24 of the Convention; and
- b. the climate-induced impacts on the rights of children, both in Spain and abroad, resulting from the emissions of greenhouse gases generated by private energy producers in Spain.

We urge the Committee to recommend that the State addresses the adverse impacts on the rights of the child of coal-fired energy production by taking urgent measures to reduce atmospheric pollution and by planning a phase-out of coal power plants.

### **3. Impacts on the health of children caused by the atmospheric pollution generated by coal-fired power plants in Spain**

The main sources of air pollution include inefficient modes of transport, household fuel and waste burning, industrial activities, and coal-fired power plants<sup>14</sup>.

Despite the progress made in recent decades to improve air quality, air pollution still represents a global problem. At present, there are still risk situations that can adversely affect our health, depending on the concentrations to which we are subject and the duration of the exposure. Air pollution affects in many different ways. Nevertheless, it impacts the most on people who are already ill, as well as on the most vulnerable groups, such as children<sup>15</sup>.

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<sup>12</sup> Report by the Committee on the Rights of the Child of the Day of General Discussion: Children’s Rights and the Environment (2016), at 36.

<sup>13</sup> Ibid, at 35

<sup>14</sup> WHO, WHO releases country estimates on air pollution exposure and health impacts.

URL: <http://www.who.int/mediacentre/news/releases/2016/air-pollution-estimates/en/>

<sup>15</sup> Source: WHO. More information at:

[http://www.who.int/phe/health\\_topics/outdoorair/databases/health\\_impacts/en/](http://www.who.int/phe/health_topics/outdoorair/databases/health_impacts/en/)

The Air Quality Guidelines (AQG) developed by the WHO are intended to support measures aimed at achieving air quality that protects the health of citizens in different situations. These guidelines are based on a comprehensive set of scientific evidence relating to air pollution and its health consequences<sup>16</sup>. The last AQG were published in 2005 and have been followed by multiple epidemiological and toxicological studies which have been carried out to prove the impacts on health of air pollution.

These studies indicate that exposure to PM<sub>2.5</sub> is associated with an increase in the systemic inflammatory response and oxidative stress<sup>17</sup>, as well as with variations in the biomarkers of cardiovascular inflammation such as C - reactive protein (CRP)<sup>18</sup> and fibrinogen<sup>19,20</sup>. Long-term exposure promotes the progression of cardiovascular diseases as a whole and has been associated with an increase in total mortality. Particularly, with an increase in cardio-respiratory mortality<sup>21</sup> and mortality from lung cancer<sup>22</sup>. It is also related to respiratory diseases<sup>23</sup>.

NO<sub>2</sub> is a highly reactive and equally hazardous health pollutant present in the vast majority of urban and industrial areas. These studies show that prolonged exposure to NO<sub>2</sub> can cause damage to the respiratory system and is associated with increased symptoms of bronchitis and asthma, lung function impairment, and lung cancer<sup>24</sup>. In fact, numerous epidemiological studies conducted in Europe and the rest of the world conclude that between 5 and 7% of lung cancer cases in ex-smokers and non-smokers may be associated with exposure to high concentrations of this pollutant<sup>25</sup>. It is also related to an increase in mortality.

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<sup>16</sup> WHO, *Air Quality Guidelines. Particulate matter, ozone, nitrogen dioxide and sulfur dioxide*. Global Update 2005.

Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/78638/E90038.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/78638/E90038.pdf)

<sup>17</sup> Oxidative stress is essentially an imbalance between the production of free radicals and the ability of the body to counteract or detoxify their harmful effects through neutralization by antioxidants. Source: News Medical.

<sup>18</sup> CRP is a protein which can be found in the blood. The level of CRP rises when there is inflammation throughout the body. Thus, it can be considered as a marker of cardiovascular risk.

<sup>19</sup> Fibrinogen is a high-molecular weight protein in the blood plasma that by the action of thrombin is converted into fibrin; called also factor I. In the clotting mechanism, fibrin threads form a meshwork for the basis of a blood clot. Most of the fibrinogen in the circulating blood is formed in the liver. Its blood levels may vary under certain conditions. If it increases there can be many diseases associated to this like an infection, a cancer, a lymphoma or inflammatory diseases.

<sup>20</sup> WHO - Regional Office for Europe, *Review of evidence on health aspects of air pollution-REVIHAAP Project*, 2013, p. 7.

<sup>21</sup> WHO - Regional Office for Europe, *Methods and tools for assessing the health risks of air pollution at local, national and international level*, 2014.

<sup>22</sup> Ghassan B. Hamra, Outdoor Particulate Matter Exposure and Lung Cancer: A Systematic Review and Met-Analysis, *Environmental Health Perspectives*, Vol. 122, N. 9, 2014.

<sup>23</sup> WHO - Regional Office for Europe, *Health risks of air pollution in Europe – HRAPIE project*, 2013.

<sup>24</sup> WHO - Regional Office for Europe, *WHO Expert Consultation: Available evidence for the future update of the WHO Global Air Quality Guidelines*, 2016, p. 17.

<sup>25</sup> Y. Omid et al., Exposure to PM<sub>10</sub>, NO<sub>2</sub> and O<sub>3</sub> and impacts on human health, *Environmental Science and Pollution Research*, 2016.

SO<sub>2</sub> has been associated with an increase in asthma and chronic bronchitis as well as with a decrease in lung function and bronchial inflammation. Hospital admissions due to heart disease as well as mortality increase on days when SO<sub>2</sub> levels are higher<sup>26</sup>.

In June 2016, a study was published by CAN Europe, HEAL, Sandbag and WWF analyzing the health impacts caused by the emissions of 257 coal plants in the EU in the year 2013<sup>27</sup>. The results show that the plants which caused more damage were located in Poland, Germany, United Kingdom, Romania, Bulgaria, Spain and the Czech Republic.

One year later, the same experts updated the health impact data of these coal power plants' with the emissions from 2015. According to the results, the emissions from Spanish coal power plants caused 68,613 asthma attacks in children. These episodes include children both in and outside of Spain, due to the transboundary nature of pollution<sup>28</sup>. The CRC has stressed in the past the necessity for States to address the adverse impacts of air pollution on the rights of children not only domestically but also in other countries.<sup>29</sup>

In 2017, the IIDMA's study "A Dark Outlook: the health impacts of coal-fired power plants in Spain during 2014" has estimated the health impacts - and the associated economic impacts- derived from the emission of pollutants into the atmosphere from coal power plants in Spain during the year 2014<sup>30</sup>.

One of the results of this study is that in 2014, the emissions from coal power plants can be related to **10,521 cases of asthma symptoms in asthmatic children and 1,233 cases of bronchitis in children** in Spain only. The scope of this study is exclusively Spain whereas the previously cited study covered the whole European territory.

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<sup>26</sup> WHO, *Ambient (outdoor) air quality and health*, September 2016.

URL: <http://www.who.int/mediacentre/factsheets/fs313/en/>

<sup>27</sup> "Europe's Dark Cloud – How coal-burning countries are making their neighbours sick" was published in June 2016 by WWF, Climate Action Network (CAN) Europe, Health and Environment Alliance (HEAL) and Sandbag. Available online at: <http://www.caneurope.org/docman/coal-phase-out/2913-dark-cloud-report/file>

<sup>28</sup> Data available at: <https://beyond-coal.eu/data/>

<sup>29</sup> CRC Concluding Observations on the United Kingdom of Great Britain and Northern Ireland (2016), para. 68.

<sup>30</sup> The used methodology consisted in two phases. In the first one, a simulation of the dissemination of NO<sub>x</sub>, SO<sub>2</sub> and particulate matter emissions from coal power plants was carried out using a mathematical model of dispersion (CALPUFF). At a later stage, the results of this simulation were completed with demographic and epidemiological data in order to quantify the effects of these emissions on health in populations at provincial, regional and national levels. To this extent, the respective *concentration-response functions* (CRFs) were applied. These functions reflect the relationship between the concentration increase of a given pollutant and its impact on health following a WHO methodology. In addition, a comparison was made of the all natural cause mortality incidence rates related to an increase in the concentration of PM<sub>2.5</sub>, both at regional and provincial levels.

With regards to respiratory diseases, 1,053 cases of bronchitis have been quantified in children between 6 and 12 years of age caused by PM<sub>10</sub> emissions from coal power plants. 10,521 cases of asthma symptoms have been estimated in asthmatic children<sup>31</sup> between the ages of 5 and 19, as there is a clear relationship between short-term exposures to PM<sub>10</sub> and the onset of episodes of asthma<sup>32</sup>.

NO<sub>2</sub> emissions were responsible for **180 cases of acute bronchitis<sup>33</sup> in asthmatic children** between 5 and 14 years old. Most of these cases occurred in locations with a higher number of coal power plants near to each other or in neighbouring territories. In particular, Asturias was the most affected Autonomous Community, where 9.4 out of 1,000 asthmatic children experienced bronchitis symptoms due to a long-term exposure to NO<sub>2</sub>. The following most affected AA.CC were Cantabria (4.5 out of 1,000) and Castilla y León (2.7 out of 1,000).<sup>34</sup>

The emissions limit values of these power plants are regulated by European Union legislation. The emissions from coal plants in Spain have been subject to derogations allowing them to emit higher amounts of pollutants. The first granted exclusively to Spain was introduced by Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants<sup>35</sup> consisting on a temporary and limited derogation from the full application of the emission limit value of sulphur dioxide fixed for new plants.

After, Directive 2001/80/EC of the European Parliament and of the Council of 23 October of 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants (LCPD)<sup>36</sup> allowed Member States to exempt existing plants from compliance with the stricter emission limit values (ELVs) for NO<sub>x</sub>, SO<sub>2</sub> and dust introduced by this Directive including those plants in a national emission reduction plan<sup>37</sup> or by the commitment of their operators to close those plants no later than 31 December 2015<sup>38</sup>. Spain passed its own national emissions reduction plan in

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<sup>31</sup> “Asthmatic children” must be understood as those which have a chronic condition of this disease.

<sup>32</sup> Weinmayr et al., *Short-Term Effects of PM10 and NO2 on Respiratory Health among Children with Asthma or Asthma-like Symptoms: A Systematic Review and Meta-Analysis*, 2010.

<sup>33</sup> Acute bronchitis is swelling and irritation in a child's air passages. This irritation may cause coughing or other breathing problems. Acute bronchitis lasts about 2 weeks and is usually not a serious illness. (Source: Holland M., *op. cit.*, p. 12).

<sup>34</sup> In the absence of data it is assumed each affected child experiences bronchitis once in a year, and that this does not lead to additional complications. Both assumptions seem conservative. (Source: Holland M., *op. cit.*, p. 35.)

<sup>35</sup> See Article 5 (3). Official Journal L 336 , 07.12.1988, Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:31988L0609&from=en>

<sup>36</sup> OJ L 309, 27.11.2001. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32001L0080>.

<sup>37</sup> Article 4(3).

<sup>38</sup> Article 4(4).

force until 31 December 2015<sup>39</sup> which included most of the coal plants in Spain. Only a few were subject to the closing commitment. Nevertheless, all Spanish coal plants were the subject of derogations to the stricter ELVs.

Finally, Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (IED)<sup>40</sup> established stricter ELVs than those in the LCPD which was repealed by the IED from 1 January 2016. In spite of those stricter ELVs, the IED again allowed derogations. The exemptions that Spain opted for its coal-fired LCPs are:

1. **Transitional National Plan (TNP)**<sup>41</sup>, which allows them to emit more SO<sub>2</sub>, NO<sub>x</sub> and particles until 30 June 2020, under the condition that from that date they are subject to the ELVs set in the IED for existing plants<sup>42</sup>. The Spanish TNP was approved by the European Commission (EC) on May 29, 2015 and has been applicable from 1 January 2016.
2. **Limited Lifetime Derogation (LLD)**<sup>43</sup>, which allows them to be exempted from complying with the ELVs and desulphurisation rates set in the IED, provided that they meet certain conditions<sup>44</sup>. One of them was the obligation for the operator of the combustion plant to commit before 1 January 2014, in a written declaration submitted to the competent authority, to not work for more than 17,500 hours from 1 January 2016, until, 31 December 2023, at the latest<sup>45</sup>.
3. **Small Isolated Systems Derogation (SISD)**<sup>46</sup>, which allows combustion plants which were part of a small isolated system<sup>47</sup> on 6 January 2011, to be

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<sup>39</sup> Available at:

[http://www.minetad.gob.es/energia/desarrollo/Medioambiente/Documents/PNRE\\_DIC2007.pdf](http://www.minetad.gob.es/energia/desarrollo/Medioambiente/Documents/PNRE_DIC2007.pdf)

<sup>40</sup> OJ L 334, 24.11.2010. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075>.

<sup>41</sup> Article 32.

<sup>42</sup> The ELVs for existing plants under the IED are those set out in part 1 of Annex V.

<sup>43</sup> Article 33.

<sup>44</sup> Article 33.1 of the IED provides: "(...) provided that the following conditions are fulfilled: (...)b) the operator is required to submit each year to the competent authority a record of the number of operating hours since 1 January 2016; (c) the emission limit values for sulphur dioxides, nitrogen oxides and dust set out in the permit for the combustion plant applicable on 31 December 2015, pursuant in particular to the requirements of Directives 2001/80/EC and 2008/1/EC, shall at least be maintained during the remaining operational life of the combustion plant. Combustion plants with a total rated thermal input of more than 500 MW firing solid fuels, which were granted the first permit after 1 July 1987, shall comply with the emission limit values for nitrogen oxides set out in Part 1 of Annex V; and (d) the combustion plant has not been granted an exemption as referred to in Article 4(4) of Directive 2001/80/EC".

<sup>45</sup> The only possibility for a plant which is under the LLD to continue operating after 31 December 2023, is if they undertake the necessary works to start operating as a completely new plant under the IED, complying with the stricter ELVs set out under the BAT requirements for new plants, according to the BREF which is expected to enter into force by 2021.

<sup>46</sup> Article 34.

<sup>47</sup> According to article 2(26) of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC (OJ L 211, of 14.08.2009), "small isolated system" refers to "any system with

exempted from the ELVs and desulphurisation rates set in the IED until 31 December 2019.

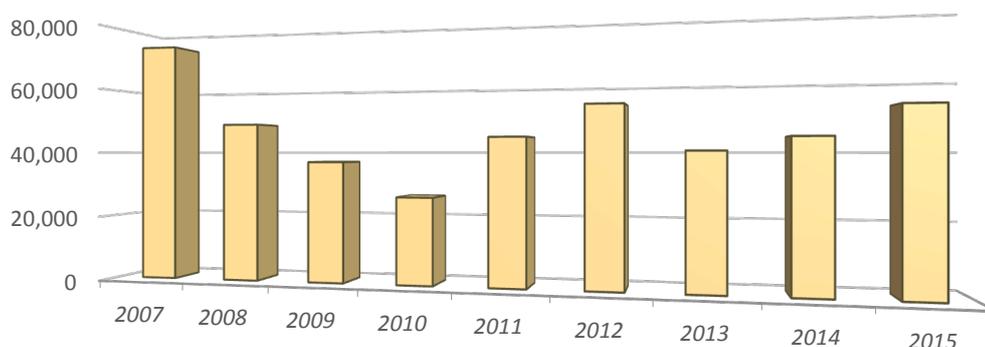
All Spanish coal plants have been included in one of the above derogations. Thus, the Spanish authorities have successively allowed higher emissions which as explained causes serious health problems in children.

#### **4. Adverse climate-induced impacts on the rights of children resulting from the emissions of Greenhouse Gases generated by power plants in Spain**

Among the EU member states, Spain is the country for which emissions of greenhouse gases have increased with the most since 1990.<sup>48</sup> Spanish emissions of greenhouse gases reached their maximum level in 2007 and decreased in the following years as a result of the economic crisis that hit the country.<sup>49</sup> Still, while the vast majority of EU member states reduced their emissions after 1990 in line with the objective set in the Kyoto Protocol, the Spanish these emissions of greenhouse gases in 2015 were still 16.6% higher than those 1990 (used in the UN Climate Framework as the reference year).

Additionally, the reduction of emissions noted since 2008 has halted since 2013 as the economic crisis ended, highlighting the inadequacy of climate and energy policies to actively reduce emissions. The energy sector and in particular the reliance of electricity providers on coal is responsible for a large portion of this increase.

#### ***CO<sub>2</sub> emissions***



**Figure 2 - Annual evolution of CO<sub>2</sub> emissions from coal power plants in Spain [kilotonnes/year]**

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consumption of less than 3,000 GWh in the year 1996, where less than 5% of annual consumption is obtained through interconnection with other systems”.

<sup>48</sup> See for instance the figures by Eurostat: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Greenhouse\\_gas\\_emission\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Greenhouse_gas_emission_statistics)

<sup>49</sup> See the Summary of GHG Emissions for Spain produced by the secretariat to the UN Framework Convention on Climate Change, available at [https://unfccc.int/files/ghg\\_emissions\\_data/application/pdf/esp\\_ghg\\_profile.pdf](https://unfccc.int/files/ghg_emissions_data/application/pdf/esp_ghg_profile.pdf)

In the electricity sector, the variation of CO<sub>2</sub> emissions is related to the technologies used to generate electricity. All combustion installations, including coal power plants are responsible for emitting high quantities of this GHG. If we compare CO<sub>2</sub> emissions from coal and from the remaining combustion installations, it can be seen that in 2008, the year in which the economic crisis began, both coal and the rest of combustion installations were responsible for very similar amounts of CO<sub>2</sub> emissions (Figure 2). In the following two years, the emissions caused by the rest of the combustion plants surpassed those of the coal plants. However, during the period from 2011 to 2014, when coal burning was being subsidized through the preferential dispatch mechanism, coal plants were, again, the largest emitters of CO<sub>2</sub>. This trend continued to increase in 2015 as electricity generation from coal increased as well. Coal plants were responsible for more than 53,000 kilotonnes of CO<sub>2</sub>, equivalent to 60.3% of emissions from all of Spain's combustion installations.<sup>50</sup>

These emissions of CO<sub>2</sub> and the lack of measures implemented to address these in the short term are in stark contradiction with the international objectives of combating climate change. The Paris Climate Agreement ratified by Spain on 12 January 2017<sup>51</sup> commits the State and other parties to holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.<sup>52</sup>

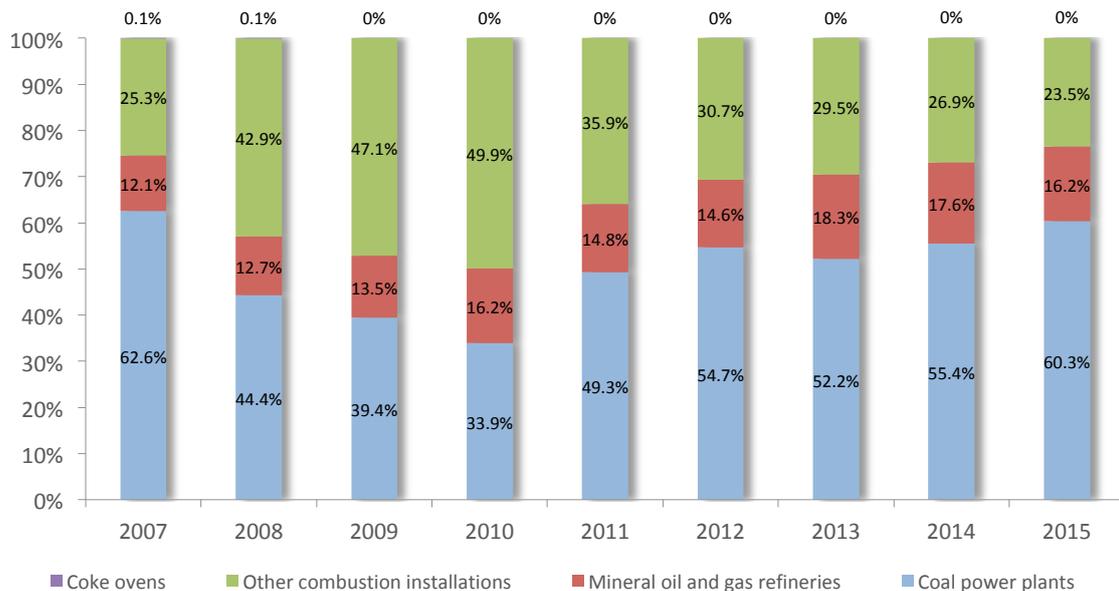


Figure 3 - Annual CO<sub>2</sub> emissions of thermal power stations and combustion installations in Spain (Source: Own elaboration with data from PRTR-Spain and European Union Transaction Log, EUTL)

<sup>50</sup> Barreira., A., Patierno., M., Ruíz-Bautista., C., “A dark outlook: the health impacts of coal-fired power plants in Spain during 2014 ” (23 May 2017).

<sup>51</sup> Spanish Official Journal num.28 of 2.02.2017 ([https://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2017-1066](https://www.boe.es/diario_boe/txt.php?id=BOE-A-2017-1066)). According to the Spanish Constitution (Art. 96(1)) and the Spanish Civil Code (Art. 1 (5)) once an international convention it is published in the official journal it is part of the domestic legal order and directly applicable.

<sup>52</sup> Paris Climate Agreement (2015, in force 4 November 2016), Article 2.1(a).

## 5. Recommendations

This parallel report highlights concerns for the rights of the child, both in Spain and outside of the national borders, associated with the energy and climate policies of Spain. The report highlighted in particular two parallel sets of concerns.

- a. First, the continuous operation of coal-fired power plants in Spain results in a high level of air pollution which results in **direct adverse impacts on the rights of children, in particular their right to health as protected under article 24 of the Convention, both domestically and in other countries.**
- b. Second, the **operation by private entities** of these coal-fired power plants also results in a high amount of emissions of CO<sub>2</sub> and other greenhouse house gases contributing to global climate change. The emissions of these gases consequently **result in an increase of climate-induced impacts on the rights of children, both in Spain and abroad, in contradiction with articles 24, 27 and 28 of the Convention on the Rights of the Child.**

The continued operation of these power plants is not necessary to guarantee the energy supply of Spain. On the contrary, as demonstrated by the commitment made in November 2017 by 19 countries to phase out coal power in their jurisdictions, an orderly transition away from this health and climate damaging source of energy can be achieved by States through adequate energy policies.<sup>53</sup>

**In order to ensure the protection of the rights of children, we urge the Committee to recommend that the State addresses the adverse impacts on the rights of the child of coal-fired energy production by taking urgent measures to reduce atmospheric pollution in line with international standards and by planning a phase-out of coal power plants in a manner that is compatible with the global temperatures goals agreed internationally.**

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<sup>53</sup> See the Powering Past Coal Alliance: Declaration adopted by 19 States on 16 November 2017 and available at <https://www.gov.uk/government/news/climate-change-minister-claire-perry-launches-powering-past-coal-alliance-at-cop23>