



Press release

Health costs of PLN 34bn associated with air pollution from coal power generation in Poland

- New study links air pollution from power plants burning coal and lignite with chronic illness and premature deaths in Poland
- Health groups warn that the use of coal is harmful and increases chronic health conditions in Poland, including respiratory and cardiovascular diseases
- Higher rates of disease produce substantial health costs, which are paid by patients, the national health system, and the economy at large
- Health experts want to initiate a debate about health costs of energy use in Poland and the EU, due to the high prevalence of chronic diseases

Warsaw, 3 June 2013 - Burning coal in power plants in Poland results in health costs of PLN 12.5 – 34.4 billion (€3 – 8.2 billion) every year, according to a study presented in Warsaw today by the Health and Environment Alliance (HEAL), a non-profit alliance of organisations from the health and medical sector. (1)

The figures represent the first-ever assessment of the health burden and monetary associated with coal-fired power generation. They form part of the first Europe-wide assessment of these costs.

The report "Niepłacony rachunek - Jak energetyka węglowa niszczy nasze zdrowie" (The unpaid health bill: how coal power plants make us sick) (2) shows the scientific evidence that air pollution is an important risk factor for health. Air pollution worsens chronic respiratory and cardiovascular disease and also leads to higher mortality from these diseases.

Specifically, the report estimates that in Poland about 3,500 premature deaths, 1,600 cases of chronic bronchitis, 1,000 hospital admissions and 800,000 lost working days can be attributed air pollution from coal burning for electricity. The costs of the associated health burden are startlingly high – equivalent to approximately 30% of average EU funding to Poland. (3) The health costs are paid by patients, the national health system and the economy at large due to productivity losses rather than by industry.

"By bringing attention to the health impacts linked to coal power generation, we want to initiate a debate on how health costs can be taken into account in future Polish energy policy," says HEAL Coal and Health Officer Julia Huscher. "Our report shows that reducing pollution from coal combustion, investing in energy efficiency, and increasing renewable energy capacity in Poland will bring large health benefits for the whole population."

The scientific evidence that air pollution causes disease is no longer in doubt, according to Dr Michal Krzyzanowski, an epidemiologist working until recently at the World Health Organization. He says: *"Circulatory and respiratory diseases associated with exposure to air pollution lead to a reduction in life expectancy of 10 months in the Polish population. Coal combustion, both in the electric power plants and in individual households (4), is the single biggest source of this pollution in Poland. To*

protect health and the environment, energy policy must seriously consider the significant health costs resulting from the dominant role that coal plays among our current energy sources."

Children are at higher risk

Emissions from coal-fired power plants contribute substantially to air pollution affecting the health of everyone in Poland. (5) However, children are especially vulnerable. After genetic disposition, exposure to poor air quality is the biggest risk factor for chronic respiratory disease in childhood, a fact that was stressed in Council conclusions under the Polish EU Presidency in 2011. (6) In asthmatic children, air pollution increases the number as well as the severity of asthma attacks.

Dr Krystyna Pawlas from the Institute of Occupational Health and Environmental Medicine in Sosnowiec says: *"Doctors in Poland are worried about the effects of poor air quality on health. Despite a significant improvement in the state of the environment, doctors still see patients every day, especially children, with breathing problems that are likely to be related to the air they breathe."*

The Health and Environment Alliance believes that future energy discussions in Poland should take into account the health costs of burning coal to generate electricity. *"When considering the closing down of an old coal plant or deciding to embark on a new one, policy makers should be aware of the health costs of the project - not only to the population in the immediate vicinity of the plant but also to the national population resulting from greater air pollution."*

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Notes to editors:

1. The Health and Environment Alliance (HEAL) is a leading European not-for-profit organization addressing how the environment affects health in the European Union. With the support of its more than 65 member organizations, which represent health professionals, not-for-profit health insurers, patients, citizens, women, youth, and environmental experts, HEAL brings independent expertise and evidence from the health community to different decision-making processes. Members include international and Europe-wide organisations as well as national and local groups. Website: www.env-health.org

2. Link to the report on HEAL website: <http://www.env-health.org/> (from 14.01 CET, 3 June 2013) The evaluation in the report is based on a calculation of the costs associated with premature deaths, medical visits, hospitalisations, medication and reduced activity, including working days lost, resulting from exposure to coal-related air pollution. The methodology applied for assessing the health risks comes from the European Commission's Clean Air For Europe Program (CAFE), and emissions data analysed are publicly available from the European Environment Agency. The original report (in English) is available here http://www.env-health.org/IMG/pdf/heal_report_the_unpaid_health_bill_how_coal_power_plants_make_us_sick_final.pdf

3. The lower range estimate of the health cost burden related to coal combustion for electricity is PLN 12.5 billion. This is about 30% of the average annual amount of EU funding that Poland has been allocated. http://ec.europa.eu/regional_policy/thefunds/funding/index_en.cfm

4. The role of domestic coal combustion: The predominant use of coal in domestic heating in Poland is responsible for similar health impacts, however, this sector has not been included in HEAL's assessment, which only covers large combustion installations. When a ban on domestic use of coal was introduced in Dublin in the 1990s, substantial improvements in public health took place. Mortality rates decreased by more than 5% after the introduction of the ban, while respiratory mortality declined by 15% and cardiovascular mortality by 10%.

In Poland coal use in power plants contributes about 10% to direct emissions for both PM2.5 and PM10, while domestic heating contributes about 40%. However, there is an additional effect on the concentration of PM that comes from other gases such as nitrous oxides (NOx) and sulphur dioxide

(SO₂), because these gases react in the atmosphere and form secondary inorganic aerosols, which are a part of PM_{2.5}. Emissions of NO_x and SO₂ from power plants contributes 32% and 49% respectively, while domestic combustion only 7% and 21%.

5. In Poland, respiratory and cardiovascular diseases together are responsible of more than 50% of deaths (46% of mortality is related to cardiovascular disease, 6% to lung cancers and another 5% to other respiratory diseases. While air pollution is only one risk factor for these diseases, the high prevalence of them means there is a large health burden.
http://epp.eurostat.ec.europa.eu/portal/page/portal/health/public_health/data_public_health/main_tables

6. Council conclusions on prevention, early diagnosis and treatment of chronic respiratory diseases in children. 3131st Employment, Social policy, Health and Consumer affairs Council meeting. Brussels, 1 to 3 December 2011.

http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/lsa/126522.pdf

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