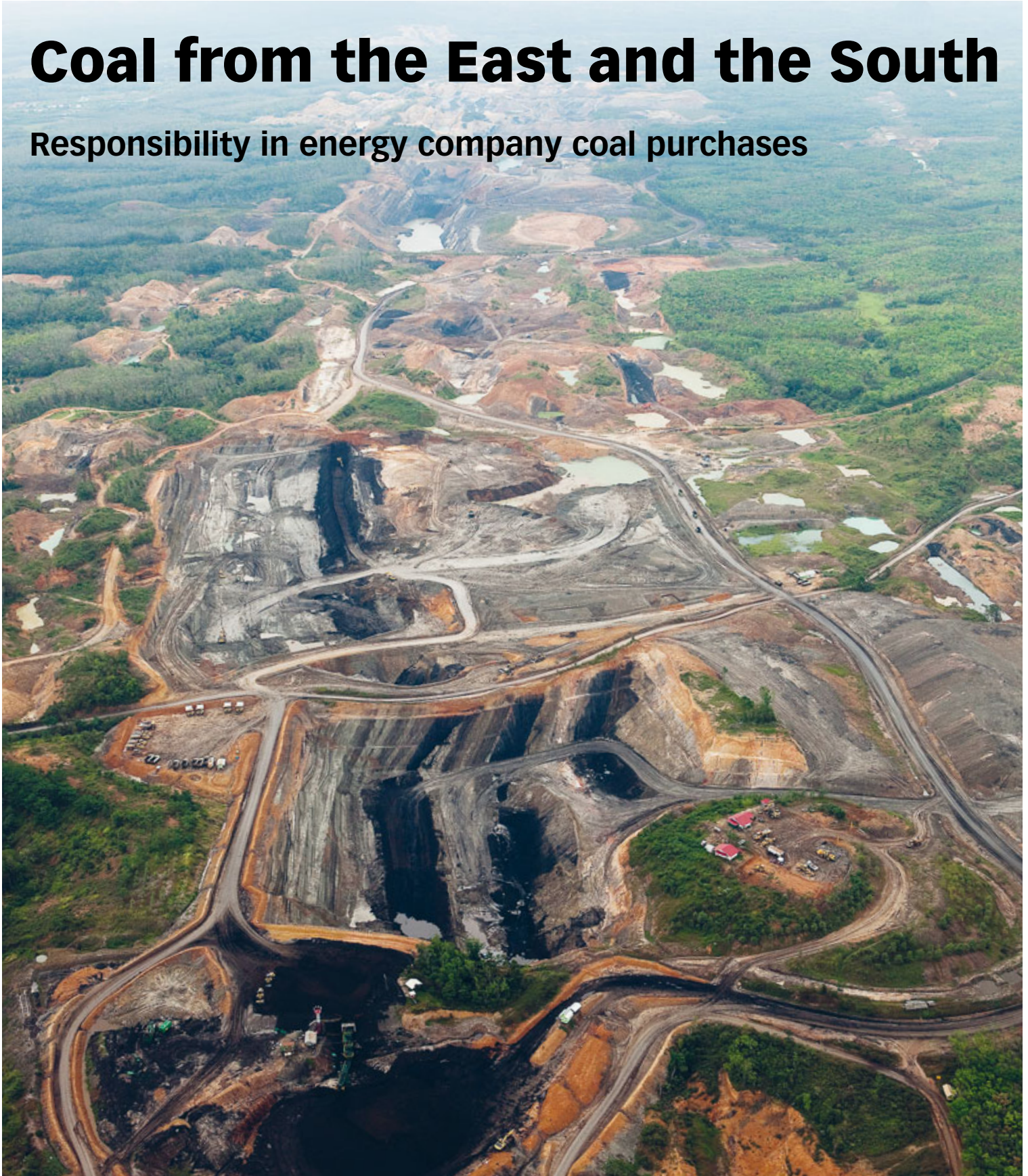


5/2010

Coal from the East and the South

Responsibility in energy company coal purchases



Finnwatch monitors the impact of activities by Finnish companies, and companies strongly linked to Finland, in the backyards of the planet. The organisation is supported by a group of Finnish development, trade union and environmental organisations.

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Foreword

Coal enabled the Industrial Revolution which transformed the whole world and it still plays a hugely significant role in the global economy. Nowadays coal is mainly burned in power plant, many of which produce both electricity and district heating.

The biggest part of coal combustion products consists of carbon dioxide which is the most important greenhouse gas affecting climate change. It is therefore natural that when coal is discussed, the focus is usually on the global climate impacts caused by its combustion.

Although preventing climate change is one of the most important challenges of our time, it is good to remember that the mountains of coal found in front of power stations do not appear from nowhere. Coal is extracted from mines around the world, where numerous violations of environmental and human rights have been reported. Working in a Chinese coal mine is known as the world's most dangerous civilian profession.

This report presents the effects of coal mining especially from the perspective of the workers in coal mines located in the developing countries, the communities living around the mines, and the local environment. We also examine whether Finnish energy companies are operating responsibly in their coal purchases.

The use of coal seems to be falling in Finland but even if ambitious restrictions are agreed in the climate negotiations, the use of coal

will not end in an instant. Some energy companies are hoping that the new carbon dioxide capture techniques will prolong the use of coal far into the future. I hope that this report will bring a new perspective to the discussion about the pace of reducing coal use in Finland.

What coal use will still remain should not be "blood coal"; but should be acquired as responsibly as possible. Our report shows that a significant share of the coal imported to Finland comes from areas in Russia with the worst record of deaths in mining accidents. Small amounts of coal have also been imported from developing countries where occupational diseases and environmental and human rights violations are an everyday occurrence. It is worrying that there is still much to do in ensuring that Finnish energy companies buy their coal responsibly.

Finnish energy companies should also monitor their coal purchases better because, regardless of the outcome of the climate negotiations, the use of coal will continue in the developing countries longer than in Finland. The decisions made today will also have an impact on the conditions under which the coal burned in the developing countries will be mined in the future.

Janne Sivonen

Executive Director
Finnwatch

1. Introduction

Coal is the world's most commonly used fuel for electricity production. It is also one of the biggest sources of emissions in energy production. The use of coal is encouraged by its good availability and reasonable price.

In Finland coal use is concentrated in the large condensing power plants, district heating power plants and, to a small extent, in industrial electricity and heat production.¹ Coal's share of total energy consumption in Finland is about 10%. Coal is used for energy production in condensing power plants that produce only electricity, as well as combined heat and power plants which also produce district heating or industrial process heating. In the condensing power plants the share of coal is 60–70% and in the combined plants about 30%.² There are 13 energy producing power plants in Finland and they are mainly located on the coast and in the major cities of southern Finland. The biggest users of coal are the power companies Pohjolan Voima, Fortum and Helsingin Energia, and Rautaruukki in the industrial sector.³

This report examines the ethical responsibility of Finnish energy companies' coal purchases and the social and environmental effects of coal mining in the producer countries. Finnwatch requested information from the seven largest coal users in Finland regarding the source of their coal and the ethical criteria of their purchases. The questionnaire (see Appendix 1) was sent to Fortum (Inkoo, Meri-Pori, Naantali, Suomenoja), Helsingin Energia (Hanasaari, Salmisaari), Pohjolan Voima (Kristiina 2, Mussalo 1, Tahkoluoto), Vantaan Energia (Martinlaakso), Lahti Energia (Kymijärvi), Vaskiluodon Voima (Vaskiluoto 2), and Alholmens Kraft (Pietarsaari). Pohjolan Voima is responsible for the coal purchases of the last two companies. All the companies responded to Finnwatch but the level of comprehensiveness in their answers was variable.

1 <http://www.energia.fi/fi/sahko/sahkontuotanto/kivihiili>

2 <http://www.hiilitieto.fi/fi-FI/energiantuotanto/>

3 <http://www.hiilitieto.fi/fi-FI/Hiilisuoemessa/>

MINING ALSO HAS CLIMATE IMPACTS

The combustion of coal produces significant quantities of sulphur dioxide (SO₂), nitrogen oxide (NO_x) and particle emissions. Carbon dioxide (CO₂), a major greenhouse gas and contributor to climate change, is also released into the atmosphere. Many coal plants are equipped with anti-pollution combustion technologies and gas clean-up devices.⁴ Carbon dioxide emissions are still a problem, however. For example, coal combustion produces about 40% more carbon dioxide emissions than natural gas combustion.⁵ There is currently a debate about capturing and storing carbon dioxide, but the technology is not expected to become commercially viable for several decades.⁶

The discussion about climate change often focuses on the emissions caused by the combustion of coal, but coal mining also has a climate impact. Methane, a strong greenhouse gas, is also created by fossil fuel production, as well as livestock production and rice cultivation. The pores within coal contain methane which can ignite and cause accidents. In the United States, the methane emissions of functioning coal mines produce an estimated 26% of the methane emissions of the country's energy sector.⁷

4 <http://www.energia.fi/fi/sahko/sahkontuotanto/kivihiili>

5 http://www.motiva.fi/toimialueet/uusiutuva_energia/bioenergia/biokaasu; <http://www.vtt.fi/news/2010/06032010.jsp>

6 <http://www.ilmasto.org>

7 <http://fi.wikipedia.org/wiki/Metaani>; McKeown, A. (2007). *The Dirty Truth About Coal*. Sierra Club, p.8

Written sources include research related to the topic, as well as the reports, publications and web pages of the national authorities, energy companies and various organisations. The information relating to mining accidents has also been compiled from the news stories published in the media in different countries.

2. Where does the coal used in Finland come from?

Finland imported a total of 18.3 million tons of coal in 2007–2009. By far the largest amount, 72.5%, was imported from Russia. The share of coal imported from the United States was 7.3%, Canada 6.6%, Australia 5.9%, Poland 3.0% South Africa 1.4%, Columbia 1.3%, and Indonesia 1.1%. Small amounts were also imported from Venezuela and China, among other places.⁸

Global coal production was 6,358 million tons in 2007 and has been growing by about 5% annually. China is the world’s biggest coal producer with 40% of the total. The next biggest producers are, in descending order, the United States, India, Australia, Russia and South Africa.⁹

All the Finnish energy companies stated that they knew the country of origin of the coal they use (except Alholmens Kraft, which

requested Finnwatch to address all the questions to Pohjolan Voima). Vaskiluodon Voima also referred the questionnaire to Pohjolan Voima, but still explained the country of origin and quantity of the coal Pohjolan Voima procured for it. There is not as much information regarding the source of the coal at the level of individual mines. Fortum does not know the mines when the coal is purchased as a blend, but it does know the mines for its smaller deliveries.

According to Helsingin Energia, naming a specific mine is a “more complex issue”, because the purchase is usually a blend of coal from different mines. Helsingin Energia stated, however, that usually it does know the actual mines. For the same reason Pohjolan Voima does not always know the mine that the coal comes from. Lahti Energia “does not collect

Table 1. Coal imports to Finland in tons, 2007–2009
Source: <http://uljas.tulli.fi/>

Source country	2007	2008	2009	Total
Russia	4,824,125	3,769,693	4,682,964	13,276,782
United States	354,539	532,351	443,122	1,330,012
Canada	528,785	393,249	293,423	1,215,457
Australia	559,335	292,143	222,728	1,074,206
Poland	270,132	87,921	189,350	547,403
South Africa	-	253,638	-	253,638
Columbia	88,162	68,373	73,649	230,184
Indonesia	-	194,106	13,148	207,254
Norway	16,735	45,895	6,689	69,319
Kazakstan	13,067	33,088	18,888	65,043
Venezuela	-	118	3,047	3,165
China	1,848	68	-	1,916
Others	13,020	766	12,343	26,129
Total	6,669,748	5,671,409	5,959,351	18,300,508

8 Finnish Customs foreign trade statistics, <http://uljas.tulli.fi/>

9 Brown et al. (2009). World Mineral Production 2003–2007. British Geological Survey, p.18

Table 2. Quantity and countries of origin of the coal purchased by Finnish energy companies in 2009

Company	Quantity (tons)	Countries of origin
Fortum	919,000	Russia, Australia, Poland, Kazakstan, United States, South Africa, Indonesia, Columbia (in 2009 the only country of origin was Russia).
Helsingin Energia	800,000	Russia, Poland, Kazakstan, Norway, Australia, United States
Pohjolan Voima	did not provide information	Russia, United States, Columbia, Indonesia, Kazakstan, Australia
Lahti Energia	379,350	Russia
Vantaan Energia	240,000	Russia, Kazakstan, Poland
Vaskiluodon Voima	400,000–600,000	Russia (estimate)
Alholmens Kraft	unknown	unknown

the names of individual mines”. Vantaan Energia said that it does, on the whole, know the mines. Vaskiluodon Voima does not have individual mine-level information about the source of its coal. None of the respondents wanted to give the names of the mines they are aware of.

All the companies named Russia as their largest source country. Most of the coal imported to Finland is mined in Kuzbass (Kuznetsk Basin), located in the Kemerov region of South Siberia. Fortum said it buys most of its coal (80–95%) from Kuzbass, and some also from Australia, Poland, Kazakstan, United States, South Africa, Indonesia and Columbia. In 2009 and 2010 all the coal used by Fortum has been from Russia. Helsingin Energia buys coal primarily from Russia and Poland, and occasional batches from Kazakstan, Norway, Australia and the United States. Pohjolan Voima’s main supplier is Russia and it also sources coal from the United States, Columbia, Indonesia, Kazakstan and Australia.

Previously it has also purchased coal from Poland, South Africa and Norway. Pohjolan Voima is also responsible for purchasing coal

for Vaskiluodon Voima and Alholmens Kraft, but did not specify their share. Vaskiluodon Voima believed that all its coal came from Russia. Lahti Energia’s coal is sourced from Russia’s Kuzbass. Vantaan Energia buys 40% of its coal from Russia (Kuzbass), 40% from Kazakstan (Karaganda) and 20% from Poland (Katowice). However, according to Vantaan Energia, the source countries change according to the market situation.

Coal is mainly purchased from the large producers which also own mines or from the international coal traders. Only Fortum and Helsingin Energia told Finnwatch the names of their biggest suppliers. Both companies requested that the names are not published. Both companies purchase their coal mainly from large, well-known producers. Fortum named two Russian companies and Helsingin Energia named two Russian and one Polish company. Helsingin Energia also makes supplementary purchases from traders. Pohjolan Voima and Lahti Energia mainly buy coal from the traders. Vantaan Energia said it only buys from the largest, long-term suppliers. It has about 20 potential suppliers and the ones used vary from year to year.

A total of 4.7 million tons (116,000 TJ) of coal was used as fuel for electricity and heat production in Finland in 2009. Consumption increased by 18% from the year before. Despite the growth, consumption was at a lower level than the average for this decade.¹⁰ Only Pohjolan Voima did not tell Finnwatch the quantities of coal it purchased. (see Table 2)

¹⁰ Tilastokeskus (27.1.2010). Kivihiilen kulutus kasvoi 18 prosenttia vuonna 2009. (http://www.stat.fi/til/kivih/2009/12/kivih_2009_12_2010-01-27_tie_001_fi.html)

ILO CONVENTION ON HEALTH AND SAFETY IN MINES

International Labour Organisation's (ILO) Convention 176 (1995) concerns health and safety in mines. Its starting point is to guarantee a safe framework for mining activities and to prevent accidental fatalities, injuries or ill health among the workers or the public, as well as damage to the environment.¹¹

According to the Convention, the employer should, among other things:

- primarily eliminate the risk, secondarily minimize the risk, and in so far as the risk remains, provide free personal protective equipment and other facilities;
- ensure that the mine is designed to provide conditions for safe operation and a healthy working environment;
- inform the workers of the hazards associated with their work, the health risks involved and relevant preventive and protective measures;
- provide workers who have suffered from an injury or illness at the workplace with first aid and access to medical facilities;
- provide the workers with free, adequate training on safety and health matters;
- establish a system so that the names and the probable location of all persons who are underground can be accurately known at any time;
- organise the regular health surveillance of workers.¹²

Finland ratified the ILO Convention 176 in 1997 – unlike many of the countries which produce the coal imported to Finland, such as Russia, Canada, Australia, Columbia, Kazakstan, Indonesia and China.¹³

¹¹ <http://www.finlex.fi/fi/esitykset/he/1996/19960256>

¹² <http://www.finlex.fi/fi/esitykset/he/1996/19960256>

¹³ <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C176>



Coal mines spread across Australia's Hunter Valley.

3. Problematic issues in coal mining

Coal is mined by surface (opencast) mining or by underground mining. About 40% of the world's coal mines are opencast mines, although in the United States and Australia the figure is much higher.¹⁴ Surface mining causes more environmental damage, whereas working conditions in the underground mines can be extremely dangerous. Mining disasters are constantly in the news and thousands of people die every year in these accidents. The coal mining industry is seen as the world's most dangerous industry, with Chinese coal mining being the most dangerous civilian occupation.¹⁵ On average, seven people die every day in the Chinese coal mines.¹⁶ In addition to being exposed to accidents, miners suffer from pneumoconiosis,

also known as black lung disease. An estimated 600,000 Chinese miners are reported to be suffering from pneumoconiosis, which is the number one occupational disease in China.¹⁷ Even in the United States 100 coal miners die annually from pneumoconiosis.¹⁸

More than 70% of the coal used in Finland comes from Russia, where coal mines employ about 200,000 people. Accidents and occupational diseases also cast a shadow over the lives of the miners. In the Komi Republic, at the centre of the mining industry, occupational diseases are five times more prevalent than in the rest of the Russian Federation. Pneumoconiosis is a particularly common illness.¹⁹

14 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.78 (<http://www.greenpeace.org/international/en/publications/reports/cost-of-coal>)

15 China Worker (30.3.2010). 153 trapped underground by flooding; Lockwood, A. et al. (2009). Coal's Assault on Human Health. Physicians with Social Responsibility, p. 4. (<http://www.psr.org/coalreport>); Al Jazeera (22.11.2009). Toll rises in China mine blast.

16 Asia Pacific News (2.4.2010). China mine accidents multiply - 28 dead, 192 missing. (http://www.channelnewsasia.com/stories/afp_asiapacific/view/1047484/1/.html)

17 China Daily (8.2.2010). Work safety gaps suffocate miners; BBC (30.4.2007). China miners risk deadly

disease. (<http://news.bbc.co.uk/2/hi/asia-pacific/6607419.stm>)

18 Lockwood, A. et al. (2009). Coal's Assault on Human Health. Physicians with Social Responsibility, p.6-7

19 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.32

20 Helsingin Sanomat (11.5.2010). Siperian hiilikavosturman uhrimäärä voi nousta lähelle sataa. (<http://>

In May 2010 there were news reports about a serious coal mine accident in the Kemerov region of Russia, where most of the coal imported to Finland is mined. Almost one hundred miners died in the Rospadskaya mine, which is the largest in Russia with 400km of tunnels. The accident was caused by a methane explosion, the reason for which is unclear. According to Prime Minister Vladimir Putin, security regulations had been breached for years in the mine. This was the worst mining disaster in Russia since 2007, when 110 people died in the Ulyanoskaya mine, also in Kemerovo.²⁰ According to the local trade unions, the low and results-based salaries increase the risks in mining work.²¹ The methane levels are high in the coal mines of Kuzbass. Sometimes miners cover the devices that measure methane levels in the mines with rags or their coats in order to boost their income, which was the cause of the Ulyanoskaya accident. However, the Rospadskaya mine was one of the most modern and its salary level relatively high at €850/month.²²

After Russia, the United States is the second largest source of coal for Finland. In the United States there has been a great deal of debate about the "mountaintop removal" (MTR) method used by some coal mining companies. This involves exploding the top of a mountain with dynamite and moving the earth to nearby valleys. For every ton of coal, 25 tons of earth is removed.²³

In January 2010, Science magazine evaluated the scientific research carried out on the mountaintop removal method. According to its analysis, the environmental effects of the method are so severe that they cannot be adequately mitigated with corrective meas-

ures. For example, the mines have caused forest damage in areas that have the richest biodiversity in North America. By burying the springs that are the sources for rivers, the mountaintop removal method is permanently destroying significant ecosystems, according to Science.²⁴ Local environmental organisations say that the explosions in the Appalachians of West Virginia and Kentucky have buried hundreds of kilometres of rivers, destroyed 1000 square kilometres of ancient forest, caused floods and disrupted access to drinking water.²⁵

The research evaluated in Science shows that the health risks caused by the mountaintop removal method are also serious. Coal mines and the poisons and dust released into the rivers and the air have increased the number of lung, heart and kidney diseases in the United States.²⁶ The United States Environmental Protection Agency is currently processing the renewal of the water permit for the controversial Peabody Western Coal company, which has been mining coal for decades from the sacred mountain of the Navajo and Hopi native Americans and polluting the environment.²⁷ A group of American scientists is demanding that no new coal mining permits are granted in the Appalachian mountains because the run-off water from the mines contain toxic substances to water organisms and no polluted river has ever recovered from the damage.²⁸

Mining accidents are not just a burden on the poor countries. A coal mine accident in April 2010 killed 29 miners in West Virginia and injured many others. This was the worst mining accident in the United States for a quarter of a century. Massey Energy, owner of the mine and one of the largest mining con-

www.hs.fi/ulkomaat/artikkeli/Siperian+hiilikaivosturman+uhrim%C3%A4%C3%A4r%C3%A4+voi+nousta+%C3%A4helle+sataa/1135256753694; Yle News (18.5.2010). Siperian turmakaivoksen johtaja erosi. (http://yle.fi/uutiset/ulkomaat/2010/05/siperian_turmakaivoksen_johtaja_erosi_1690049.html)

21 <http://www.mn.ru/russia/20100531/187853976.html>

22 New York Times (11.5.2010). Putin Suggests Human Error in Mine Disaster.

23 The Environmental Literacy Council: Coal Mining (<http://www.enviroliteracy.org/article.php/1122.html>)

24 M.A. Palmer et al. Mountaintop Mining Consequences, Science, 8.1.2010, Vol. 327, p.148.

25 McKeown, A. (2007). The Dirty Truth About Coal. Sierra Club, s. 6; <http://www.coal-is-dirty.com/the-coal-hard-facts>

26 M.A. Palmer et al. Mountaintop Mining Consequences, Science, 8.1.2010, Vol.327, p.148.

27 High Country News (12.4.2010). Black Mesa mine mess.

28 Washington Post (7.1.2010). Scientists decry impacts of mountaintop coal mining.

36 Helsingin Sanomat (13.4.2010). USA:n kaivosturman kaikki uhrit löydettiin.

FORCED RELOCATIONS OF INDIGENOUS PEOPLE IN COLUMBIA

Cerrejón, said to be the world's largest opencast coal mine, is located in Guajira, North Columbia, and covers an area of 100 square kilometres. Finnwatch's Danish sister organisation DanWatch recently published a report²⁹ about coal mining in Columbia, which is the source of almost a third of the coal used in Denmark. More than half of Cerrejón's coal is exported to Europe. Small quantities are also imported to Finland, at least to Fortum, which said it had purchased 75,000 tons of coal from Cerrejón in 2008. Pohjolan Voima also said it acquires coal from Columbia but did not name the mine.

Columbia's mining operations have harmed both the indigenous population and the environment. Already in the 1980s, hundreds of Wayuu people were forced out from their ancestors' land to make way for a coal harbour. Tamaquito's Wayuu's have suffered the most due to the Cerrejón mine. The coal mines have surrounded the village, destroyed the surrounding farmland and polluted the soil. Despite its promises, the company has not offered the Wayuu a new place to live. Afro-Columbian communities have also been dispersed without compensation. In 2002, the village of Tabaco was razed to the ground with bulldozers and most of its more than 1000 inhabitants were violently driven from their homes. Many former residents of Tabaco are still living as internal refugees in Columbia. The local population also suffers from even fatal health problems like respiratory organ diseases. According to one study, respiratory problems are four times more common among children living near Cerrejón than average.³⁰

In early 2010, UNCHR conducted a field study in Guajira and documented the human rights abuses directed at the Wayuu. Despite this, the Colombian government has not intervened in the situation.³¹ Columbia ratified the ILO Indigenous



A boy suffering from a skin problem next to the Cerrejón mine.

and Tribal People's Convention in 2009, which forbids the forced relocations of people from their lands. The persecution of the Wayuu is still continuing, however. Paramilitary forces have recently driven Wayuu leaders underground. The reason for this was their critique of the Cerrejón mine, which also reached international forums.³²

Mining accidents are also not unusual in Columbia. In June 2010 there were news reports of an explosion in the San Fernando mine, where 70 mine workers were trapped.³³ The Cerrejón mine likes to advertise its high level of pay and security, as well as its ISO and OHSAS certification. According to the local Sintracarbon trade union, many of Cerrejón's sub-contractors that employ almost half of the mine's 10,000 workers, do not provide adequate protective equipment and pay below the legal minimum wage. Many miners suffer from lung problems, poisoning and the vibration disease caused by the long-term use of vibrating tools. According to Sintracarbon, there are about eight new cases of black lung disease every year but the company often denies the occupational cause of the diseases.³⁴ In 2009 Cerrejón's contractor Sotrans fired tens of workers who had joined the trade union. Cerrejón did not intervene in the blatant abuse of trade union rights.³⁵

29 Adamsen, D. et. al (5/2010). The Curse of Coal. DanWatch report, p.6

30 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.22-23; Adamsen, D. et. al (5/2010). The Curse of Coal. DanWatch report, p.5-11

31 Mines and Communities (2.3.2010). Leaders of Colombian Wayuu People Go into Exile to Escape Violence and Criminalization (<http://www.minesandcommunities.org/article.php?a=9944>)

32 Colombia Solidarity Campaign (25.2.2010). Urgent action: Leaders of Colombian Wayuu People Go into Exile to Escape Violence and Criminalization (<http://www.colombiasolidarity.org.uk/urgent-actions/489-urgent-action-leaders-of-colombian-wayuu-people-go-into-exile-to-escape-violence>)

33 Yle News (17.6.2010). Kolumbiassa vakava kaivosonnettomuus. (http://yle.fi/uutiset/ulkomaat/2010/06/kolumbiassa_vakava_kaivosonnettomuus_1769275.html)

34 Adamsen, D. et. al (5/2010). The Curse of Coal. DanWatch report, p.12-14

35 Mines and Communities (16.7.2009). Colombia: Attack on labour rights by contracting agency for El Cerrejón mine (<http://www.minesandcommunities.org/article.php?a=9353>)

cerns in the United States, is suspected of breaching tens of safety regulations.³⁶

China is the world's biggest coal producer and also leads the global statistics for mining accidents. In June 2010, it was reported that 47 coal miners died in an explosion. According to official sources, more than 2600 people lose lives in the mines every year. The officials have tried to improve security by imposing fines and closing down mines, but with little success. Many mining accidents go unreported in China because the mine owners fear losing money. The actual number of mining fatalities has been estimated by the media to be many times the figure shown in the official statistics.³⁷ About half of China's 5.5 million coal miners are migrants who are not given proper training and are often unaware about the security regulations in the coal mines.³⁸ Even the workers in China's largest coal mining companies do not have permanent jobs or pension and health insurance.³⁹ In the United States security costs amount to 25–30% of the production costs for coal. In China the corresponding figure is 3.5%.⁴⁰

There are also other examples of environmental and security problems in coal mines around the world. The coal mines of Hunter Valley in Australia are threatening the region's agriculture and vineyards.⁴¹ According to the environmental organisation Greenpeace, the region resembles a moonscape with its open-cast coal mines reaching the horizon. In the Kuyavia-Pomerania region in Poland, coal mining has dramatically reduced the water level of Lake Ostrowskie. Also under threat is Lake Goplo which is part of a Natura area and one of the major protection areas for birdlife in Europe.⁴² Security is a major concern in the coal mines of Kazakhstan. Many workers have died in mine explosions in recent years.⁴³ The toxic run-off water from South Africa's abandoned coal mines represent a ticking time bomb for their local environments, as well as the biggest threat to the country's limited water reserves.⁴⁴ In Venezuela, the second largest coal producer in Latin America after Columbia, coal mines have caused conflicts with the indigenous populations and also destroyed forests and waterways.⁴⁵

37 Asia Pacific News (21.6.2010). China coal mine explosion kills 47. (http://www.channelnewsasia.com/stories/afp_asiapacific/view/1064580/1/.html)

38 China Labour Bulletin (10.5.2010). Chinese government official criticizes country's coal mine safety record.

39 China Worker (7.4.2010). Shanxi coalmine 'miracle' rescue; Mines and Communities (8.4.2010). Blood on the coal: a special feature. (<http://www.minesandcommunities.org/article.php?a=10033>)

40 China Worker (30.3.2010). 153 trapped underground by flooding.

41 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.67–68

42 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.6, 56

43 The Methane to Markets Partnership (2008). CMM Global Overview, Chapter 18: Kazakhstan, p.131 (http://www.methanetomarkets.org/documents/toolsres_coal_overview_ch18.pdf)

44 Times LIVE (24.1.2010). Mining devastating SA's farms (<http://www.timeslive.co.za/news/article275637.ece>); Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.48–53

45 IPS (26.10.2005). Indigenous people protest coal mining (<http://ipsnews.net/news.asp?idnews=30783>)

FLOODS AND RAIN FOREST DESTRUCTION IN INDONESIA

Coal is one of Indonesia's most important export products. The government of Indonesia has decided to increase coal production from its current level, although mining activities have caused serious environmental problems and land conflicts. The landfills resulting from mining have destroyed forests and increased floods. As a result, the incomes of local farmers have fallen, the price level has increased and the quality of water has deteriorated. Many people have had to move away to escape the floods.⁴⁶ In May 2010, the Indonesian civil society organisation Jatam accused four mining companies of ruining waterways and farms belonging to hundreds of people in Kalimantan. Indonesia's Minister for the Environment acknowledged that many of the smaller mining companies have not carried out the mandatory environmental impact assessment in Kalimantan.⁴⁷ Particulate matter from the mines drifts into the rivers which leads to silting. The lack of clean potable water is one of the worst problems for people living next to the mines.⁴⁸ Finland has imported coal from Kalimantan.

Kaltim Prima Coal (KPC), the largest mining company in Indonesia, has operated in East Kalimantan for more than ten years but the profits from mining are not visible in the standard of living of the local people – quite the opposite. There are more poor people living in East Kalimantan than the national average. When KPC arrived in the area at the beginning of the 1990s, it promised the local villagers clean drinking water, health services and em-



A coal mine on the edge of a rain forest in Palangkaraya in Central Kalimantan.

ployment as compensation for their lost land. These promises have not been kept, however, and the local population has lost its land and its livelihoods.⁴⁹

According to forecasts by Japan's Institute of Energy Economics, Kalimantan's coal production may triple by the year 2020. If this happens, Greenpeace believes that the coal industry will become one of the main causes of rainforest destruction in Borneo.⁵⁰ BHB Billiton, the world's largest mining company, recently pulled out of a coal mining project in the middle of Borneo's rainforests. The reason for its withdrawal was not the criticism from environmental organisations but a fall in the price of coal. Before making the decision to pull out, BHB had even promised to airlift tens of endangered orangutans out of the mine's way.⁵¹

46 Parawansa, A. (2007). Mistä hiiliyhtiö palkittiin? Metsäkato, köyhyys ja kaivoksen tukiohjelmat Indonesiassa. Published in "Rikastettu vai köyhdytetty? Ympäristötärinoita etelän kaivoksista", Siemenpuu p.43–48

47 <http://english.jatam.org/content/view/133/1/>; The Jakarta Post (11.5.2010) NGO reports seven mining firms to minister.

48 Parawansa, A. (2007). Mistä hiiliyhtiö palkittiin? Metsäkato, köyhyys ja kaivoksen tukiohjelmat Indonesiassa. Published in "Rikastettu vai köyhdytetty? Ympäristötärinoita etelän kaivoksista", Siemenpuu p.43–48

49 Ibid.

50 Bjureby, E. et al. (2008). The True Cost of Coal. Greenpeace International, p.37

51 Reuters (27.1.2010). BHP to sell stake in Maruwai coal; New Scientist (30.7.2010). Mining company abandons orangutan airlift.

4. Responsible purchases and conditions on suppliers

Finnwatch asked Finnish energy companies what kind of social and environmental criteria they set for their suppliers and the source of the coal. The companies were also requested to explain how they monitor the fulfilment of the conditions.

Only Fortum stated that it uses the ethical supplier code of conduct meant for the pre-selection of sub-contractors and the more specific written questionnaire for possible suppliers, when the purchase amount exceeds €50,000. The code of conduct is attached to the contracts. According to Fortum, the code of conduct is based on the UN's Global Compact initiative, which it signed in June 2010. The code of conduct is one page long and the more in-depth written questionnaire consists of nine pages. The code of conduct requires that suppliers abide by legislation and respect internationally recognised human rights. The suppliers are also required, among other things, to respect their own workers' trade union rights, enforce the ban on forced labour, pay a just salary (at least the minimum wage), respect the right to at least one day off per week, ensure non-discrimination, provide safe and healthy working conditions, safety training and equipment, and compliance with environmental laws. According to Fortum, the code of conduct was introduced in 2009.

According to Helsingin Energia, the suppliers' social and environmental responsibilities are dealt with in the contract negotiations, especially if the supplier is not known previously. As a basis for the discussions, Helsingin Energia uses the principles of the UN Global Compact initiative and the CSR

Guidelines prepared by British coal importers.⁵² In addition to law-abidance, the short guidelines mention the ban on under-age and forced labour, ensuring a healthy and safe workplace, adequate training and protective equipment, and the minimization of environmental impacts. According to the representative of Helsingin Energia, "the way the ethical principles are written in the contract text is always a result of negotiations", but then specifies that this does not mean flexibility regarding legislation.

Pohjolan Voima stated it operates only according to the ISO 14001 environmental management system, which does not include social, occupational health and safety aspects. On Pohjolan Voima's website,⁵³ however, there is a corporate responsibility policy that is also applicable to coal suppliers, which calls for the prevention of health and safety hazards, the realisation of trade union rights, a maximum 48 hour working week, and the payment of the legal minimum wage. In its response to Finnwatch, Pohjolan Voima did not refer to this document or tell Finnwatch how it applies its policy.

According to the representative of Lahti Energia, the company has specific quality criteria for coal but its terms of delivery (FOB)⁵⁴ make it impossible to monitor social and environmental criteria in the mines themselves. What Lahti Energia means by this is that the coal does not necessarily originate from a particular mine. Vantaan Energia says that it sets its suppliers "the normal criteria for social responsibility" without explaining these in more detail.

52 <http://www.coalimp.org.uk>

53 http://www.pohjolanvoima.fi/fi/pohjolan_voima/hyva_liiketapa_ja_yritysvastuupolitiikat/hankintatoimen_yritysvastuupolitiikka/?id=8108

54 Free on Board. The seller loads the goods on board the ship nominated by the buyer and clears the goods for export. The buyer makes a freight agreement and clears the import formalities. The costs are divided and the risk shifts when the goods have passed over the ship's rail at the port of departure. (<http://fi.wikipedia.org/wiki/Incoterm>)

Fortum's representative stated that the company is developing an auditing programme for suppliers and aims to start the audits during 2010. The audits will be mainly carried out by Fortum itself but an independent third party can also be used if necessary. According to Fortum, the audits will primarily have to be based on surveys above ground because visitors are no longer allowed inside the mines due to security issues.

Helsingin Energia audits its purchases "in accordance with the certified ISO 14001 environmental management system, which includes not only the environment but also occupational safety and emissions monitoring". However, Helsingin Energia's representative did not answer the question how the system relates to monitoring the ethicality of sub-contractors.

Pohjolan Voima also audits its coal purchases based on ISO 14001. The company's representative did not answer the additional question about audits and commented: "We can't tell very much about the purchases to complete outsiders".

Lahti Energia did not say it audited suppliers; instead, "the quality criteria make trade straightforward". Vantaan Energia said it follows the implementation of the social criteria with spot check visits to mines and by interviewing the staff working in the mine. Vantaan Energia did not, however, answer the additional questions regarding the monitoring system for suppliers, except by referring to its website⁵⁵ which only has information about the source countries of the coal and the quantities purchased.

Fortum, Pohjolan Voima and Vantaan Energia stated that they had visited the coal mines. In the period 2006–2008, Fortum's buyers had made visits to coal mines in Russia, South Africa, Poland and Australia. They had also checked operations underground. Fortum's representative added, however, that due to the "blend" it was not certain that the purchased coal originated from the mines selected for visits. Fortum's inspections revealed some

⁵⁵ <http://yhteiskuntavastuu.vantaanenergia.fi/Energia-JaYmparisto/Vastuullisuus/Sivut/default.aspx>

DANISH COMPANIES DEMAND ETHICAL RESPONSIBILITY – AT LEAST ON PAPER

In Denmark coal power plants are owned by two energy companies, DONG Energy which is Danish and the Swedish company Vattenfall. Both companies have a social responsibility policy, according to which they have a shared responsibility regarding the ethicality of their sub-contractors.

Both DONG and Vattenfall have signed the UN Global Compact initiative. According to the initiative, companies should respect international human rights and be aware of violations throughout the production chain. Vattenfall's contracts for each coal shipment require ethicality from the mining companies and compliance with the UN Global Compact principles.

Vattenfall has also included in its contracts the right to audit its own suppliers twice a year. Vattenfall has audited its suppliers in Columbia and South Africa. As part of the auditing process Vattenfall engages in dialogue with local officials but avoids contact with civil society organisations because this would make it more difficult to get access to the mines, according to the company.

In 2006 a political debate started in Denmark regarding the links of state-owned DONG to Columbia's coal mining companies, which were accused of murdering trade union activists and carrying out forced relocations. DONG cut its business relationships with one company but believed that Cerrejón was complying with the law. Vattenfall examined the activities and working conditions of the mine in 2007 and came to the conclusion that the mine is one of the best and belongs to the "world class". DONG has not carried out similar research. In 2008 both DONG and Vattenfall bought about one million tons of coal from the Cerrejón mine.⁵⁶

⁵⁶ Adamsen, D. et. al (5/2010). The Curse of Coal. DanWatch report, p.15–17

shortcomings in safety procedures in Russia. Fortum also said it has purchased small batches of coal from Columbia's Cerrejón mine and Indonesia's Kalimantan mine which are mentioned in this report. The purchases were made in 2008, when the pre-selection of suppliers and the ethical code of conduct were not yet being followed, according to Fortum. Pohjolan Voima said it has visited the mines near to Finland, but is not certain from which mine the coal comes from at any particular time. Vantaan Energia only mentions the spot checks and that the coal from Russia and Kazakstan originates from surface mines and the Polish coal is from underground mines.

None of the energy companies avoided buying coal from particular countries or mines. According to them, the purchases are mostly determined by the quality specifications, delivery reliability and logistical boundary conditions, and based on this some countries may in practice be excluded. Fortum added, however, that its ethical code of conduct and the auditing programme currently under development strive to ensure that in the future the coal purchased from other countries, in addition to Russia, will also fulfil the company's social and environmental criteria.



5. Conclusions

The openness of the seven largest Finnish coal power companies varied but at least each one answered something to the questions posed by Finnwatch. Only Fortum and Helsingin Energia revealed the names of their biggest coal suppliers, whereas Pohjolan Voima did not even tell the quantities of the coal it has purchased.

The countries of origin for the coal were generally known and were openly told. None of the companies were one hundred per cent sure of the actual mines that the coal came from. Only Helsingin Energia and Vantaan Energia stated that, on the whole, they knew the mines too. Despite this, none of the companies agreed to tell Finnwatch the names of the mines, with exception of Fortum for Columbia.

The majority of the coal used in Finland is of Russian origin. Russia's coal mine accidents have been in the headlines recently, including from the areas that are the main source of Finland's coal. Russia has not ratified ILO's Convention 176 on health and safety in mines. In the United States and Australia, which are Finland's other major source countries for coal, there has been a lively debate about the environmental problems caused by mining.

Finland also imports coal from developing countries like Columbia and Indonesia, where mining operations have destroyed the living environment of the indigenous peoples and rainforests. Fortum said it imported coal from Columbia and Indonesia in 2008, while Pohjolan Voima stated that it still brings coal from them, although less frequently. Only a small amount of coal has been imported from China, which leads the accident statistics, and none at all in 2009.

Fortum, Pohjolan Voima and Helsingin Energia have some kind of ethical guidelines or codes of conduct for coal suppliers. Only Fortum said it has signed the UN Global Compact initiative, which includes human rights responsibility for the whole production chain. Fortum had only started using the ethical code of

conduct in 2009. Pohjolan Voima did not mention an ethical policy for its suppliers in any way but it was available on the company's website. Helsingin Energia used the UN's Global Compact principles or the very short British coal importers' guidelines as the basis for its negotiations. According to Lahti Energia, its terms of delivery make it impossible to monitor ethical issues in the actual mines. Alholmens Kraft and Vaskiluodon Voima did not answer the question and referred it to Pohjolan Voima. It seems that most energy companies in Finland do not set written ethical conditions to their coal sub-contractors.

Only Fortum was developing an ethical monitoring system for the suppliers, but its audits were only just beginning. Fortum stated that in the future it would also inspect its coal suppliers and interview their workers. Helsingin Energia and Pohjolan Voima mentioned the audits based on the ISO 14001 system, which does not include social and occupational health and safety aspects or define sub-contractor audits. This is why the monitoring related to ethicality remained unclear in the case of Helsingin Energia and Pohjolan Voima. Lahti Energia did not carry out audits, while Vantaan Energia made occasional spot checks. Fortum, Pohjolan Voima and Vantaan Energia said that they had visited coal mines. None of the companies reported to Finnwatch that they had noticed any problems or inadequacies in the mines.

The requirement to abide by local legislation is a starting point that does not guarantee a living wage, the realisation of the basic norms of working life or the adequate consideration of environmental issues and human rights. The news and different reports from coal mines around the world show that the buyers should set stricter social and environmental conditions and to monitor them more systematically.

The transparency of the sub-contractor chain is the basis for responsible business activities. The answers to Finnwatch's survey dem-

onstrated, however, that most of the energy companies did not know or demand information about the source of the coal at the level of individual mines. The responses also show that the coal purchases of the Finnish energy companies are mainly driven by quality criteria, price and delivery reliability. They have no ethical monitoring system or it is just being constructed.

There is a commitment to monitoring the environmental effects of power plants located in Finland, but the monitoring of the suppliers is limited. Although a relatively small share of the coal used in Finland comes from countries where mining activities are generally associated with corruption, accidents and environmental destruction, the questions of responsibility concerning mining activities should be given attention in all the countries from where coal is imported. However, it is difficult to increase responsibility as long as it is not possible to trace the source of the coal to the level of individual mines.

The assessment of almost all the energy companies that answered the question-

naire was that their use of coal will fall in the future. Fortum could not assess the impact of its "carbon dioxide free electricity and heat company" strategy on the use of coal during the next 5–10 years. Pohjolan Voima also did not provide figures but stated that completely giving up coal remains uncertain, although nuclear power will be replacing coal condensate.

Helsingin Energia, Lahti Energia and Vantaan Energia stated that their use of coal will be reduced in the near future by tens of percentage points. Helsingin Energia will reduce coal use by 40% by the year 2020. In 2012 Lahti Energia will be taking into use a new gas power plant fuelled by recycled waste, which will cut its coal use by tens of percentage points. Vantaa forecasts that its coal use will fall by 30% when a new waste power plant is completed in Vantaa in 2014.

Although Finland's coal imports seem set to fall in the future, the energy companies should immediately develop their ethical monitoring systems and demand responsibility from the mining companies.

QUESTIONS SENT TO THE COMPANIES

1. Where and from whom do you buy the coal that you use? We would like to get as accurate information as possible about all the mines, not just the largest one.

a) Do you buy the coal through sub-contractors or directly from the mines? Which sub-contractors?

b) Do you know the source countries and the names of the mines for all the coal that you use? List them as accurately as possible here.

c) How much coal (in tons) did you buy in total in 2009? And how much did you buy per 1) sub-contractor; 2) country; 3) mine?

2. Do you set social and/or environmental criteria for your suppliers and the source of the coal? If yes, what kind? How do you monitor the fulfilment of the criteria?

3. Do you avoid buying coal from certain countries/mines? If yes, why?

4. How do you see your coal use change in the future?

SOURCES (EMAIL INTERVIEWS IN JUNE–AUGUST 2010)

Alholmens Kraft: Stig Nickull, Managing Director

Fortum: Ulla Rehell, Vice President, Sustainability

Helsingin Energia: Martti Hyvönen, Environmental Director

Lahti Energia: Jaana Lehtovirta, Director of Communications

Pohjolan Voima: Jari Niemelä, Director, Environment and Climate Policy

Vantaan Energia: Laura Ikäheimo, Environment Engineer

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