

Vattenfall's Hard Coal Procurement Explained

The global hard coal market



In 2018, approximately 7.1 billion tons of hard coal were produced globally. Most of this coal is produced for domestic use. Around 1.3 billion tons of hard coal is traded in the global international seaborne market.

EU28 imported 113 million tons of steam coal in 2018, mainly from Russia, USA and Colombia, by sea or land. In 2018, Vattenfall used 5.9 million tons of hard coal for its power plants. This volume will decline further with the phase out of coal from operations during 2019, e.g. the closure of our last coal plant in the Netherlands (Hemweg 8), the sale of the heat business in Hamburg and the closure of Reuter C in Berlin.

From the mine to the power plant

Coal is generally bought either through direct contracts with a mining company or trader or through the global wholesale market via brokers or the trading platform GlobalCoal. The main drivers for the decision from whom to source are price and quality. Vattenfall screens each direct supplier before it can be approved as a supplier.

Quality is an important driver because firstly the quality of hard coal varies greatly between different origins (country, region and even mines). Secondly, power plants are technically designed to run, more or less, on a specific quality of hard coal. To optimise the composition of the coal used in a power plant, coal with different qualities is blended. This blending can be done at different stages in the supply chain. However, most coal mining operations involve a degree of blending in the country of origin.

Because the global coal market is mainly driven by price and quality, the fact that blending occurs at different steps in the coal supply chain and because coal can change hands several times before final delivery, the original supplier of the coal is not always known to us. In the case when coal is bought through GlobalCoal, the buyer becomes aware of the country of origin only six weeks before the delivery, and it is not until the vessel loading of coal that the buyer is able to track from which port the coal is loaded. In case the port of loading is connected to

several coal mines, the exact origin can still not be tracked down.

The exception to this is Colombia. There we know the exact mine with high probability as the three biggest mining companies each use their own port.

Origin of hard coal used in our power plants

The global coal market is not as transparent as other commodity markets. Due to the relatively low number of suppliers, insights into the supply chain are commercially sensitive information. Providing the names of a supplier could result in a competitive disadvantage and increase costs of sourcing hard coal. Suppliers would be e.g. able to draw conclusions on our supply/demand situation and might increase prices which could result in a negative economic effect for us.

On the other hand, European consumers are increasingly interested to understand where the coal that is used to generate their electricity comes from. Therefore, we have looked for ways to increase transparency without creating a competitive disadvantage for Vattenfall.

In our push for more transparency in the coal supply chain, we now publish a full list of our direct coal suppliers. The list compiles all mining companies from which we have directly sourced coal for our plants during the past three years. We will update this list on a yearly basis. To our knowledge, this level of transparency is unique among energy utilities and we hope this helps to address the questions our stakeholders have on coal supply chain transparency.

*Table: Names of Vattenfall's direct suppliers
(and country of related mines), 2016-2018*

Cerrejon (Colombia)
Glencore (Colombia, South Africa)
Kuzbassrazrezugol (Russia)
Kaproben (Russia)
Murray Energy (United States)
Peabody (United States)
Polska Grupa Górnicza (Poland)
SDS Ugol (Russia)
SUEK (Russia)
XCoal (United States)

The list does not comprise the coal that we source indirectly via intermediaries and the trading platform GlobalCoal for the reasons mentioned above. Most of our hard coal deliveries is sourced directly. In addition, Vattenfall reports on the origin of hard coal on a country level. In 2018, hard coal imported from Russia accounted for around 75% of the total hard coal that we used in our power plants. Other countries of origin were the USA (19%) and Colombia (6%). These shares fluctuate year to year due to market conditions.

Responsible Hard Coal Sourcing

Vattenfall has set up a screening procedure for hard coal suppliers to our own plants to screen them in depth on how they perform on environmental, social and governance issues. Regardless of whether we have a direct contractual relationship with a certain mining operator or not, we think that it is important to improve the situation in and around all mines. Therefore, we engage directly or through Bettercoal with mining companies in our sourcing countries to improve the conditions.