

ARCTIC COAL WORK

MY ARCTIC SUNRISE October 2009

The Arctic Meltdown Expedition

On June 10, the *MY Arctic Sunrise* departed from Amsterdam on an expedition to highlight the impacts of climate change on the Arctic. The ship hosted independent science teams whose research will help explain why Arctic sea ice and Greenland's glaciers are melting faster than models predict.

The scientists on board the *Arctic Sunrise* focused their research on the connection between ocean temperatures and glacial Greenland. This connection was not accounted for in the 2007 IPCC report, meaning the IPCC underestimates the increase in sea-level rise caused by the melting Greenland Ice Sheet. Scientists now expect an increase of 1-2 m by the end of the century, spelling disaster for the 1 in 10 people who live within a meter of sea level.

Scientists have also underestimated the speed of sea ice melt. The starkest example is the record low sea ice extent of 2007, a level that was not predicted to occur until 2080. Scientists on board the *Arctic Sunrise* gathered data that will help them explain why ridged ice is melting faster than other sea ice as the ice moves through the Fram Strait.

Coal, Climate Change and the Energy Revolution

Coal burning is the greatest threat to our climate. It is the largest single source of CO₂ pollution, contributing over 40% of fossil fuel related CO₂ pollution. Coal related CO₂-pollution is projected to increase 60% by 2030. This dirty fuel generates 40 percent of the world's electricity, driving us headlong towards climate catastrophe.

The world's hunger for coal has driven coal companies to the Arctic, as shown by the Svea Nord mine in Svalbard. In 2009 the mine will produce 2.4 million tons of coal to be burnt in coal fired power stations across Europe. Burning this coal drives climate change which will change Svalbard's pristine Arctic landscape beyond recognition.

Climate change is the greatest environmental threat, humanitarian and economic challenge the world has ever faced. Millions of people are already feeling the impacts of sea-level rise, coastal erosion and the increasing intensity of floods, droughts, severe storms and forest fires. More frequent extreme weather affects agriculture and undermines food security.

Coal use lies at the root of the climate problem.

Greenpeace's Energy Revolution Scenario describes how the world can abandon fossil fuels including coal. Developed with the German Aerospace Centre (DLR), the European Renewable Energy Council (EREC) and experts from industrialized and developing countries, the Energy Revolution :

- Cuts emissions from fossil fuels by more than 50% by 2050
- Exploits existing efficiency potentials to cut global power demand
- Supports current predictions of economic and population growth
- Delivers reliable power to over 1 billion people who currently lack it
- Phases out nuclear power

Phasing out coal is a key ingredient of the plan. No new coal fired power plants need to be built in OECD countries.

A switch from coal to electricity generation based on wind, solar, geothermal and biomass will not just avoid 10 billion tons of CO₂ emissions, but create 2.7 million more jobs by 2030 than if we continue business as usual. Conversely, the global coal industry - which currently supports about 4.7 million employees worldwide - is likely to contract by more than 1.4 million jobs by 2030, due to rationalization measures in existing coal mines.

Mining in Svalbard

The mine in Svea is owned by Store Norske, a coal mining company wholly owned by the Norwegian Government. Store Norske is Norway's sole coal producer and the most northerly operator in the world. The coal mine is based on Svalbard, a 60 km flight from Longyearbyen, Svalbard's capital.

The coal from Svea is mainly used for energy purposes, and is sold on the European market. In 2009 Coal from this mine was sold to:

- France
- Germany

- Denmark
- Netherlands
- Portugal

The Svea Nord mine was opened in 2002. 20 million tonnes of coal has been extracted so far. 95% of the coal is exported out of Norway, mainly to European coal fired power plants. Estimated production for 2009 is 2.4 million tonnes. The Svea Nord core is expected to be emptied by 2014, and the company plans to open up a new mine at nearby Lunckefjell. The decision to prolong or finally phase out Norwegian coal mining is supposed to be taken by the Norwegian Parliament in 2010.

Svalbard Politics

The original reason for Norwegian coal mining in Svalbard was to maintain Norwegian settlement and sovereignty in the island group. Even before the Svea Nord mine decision by the Norwegian government in 2001, an inter-departmental committee concluded that it is not necessary to continue coal mining to sustain a settlement, central social functions in Longyearbyen , or Norwegian sovereignty.

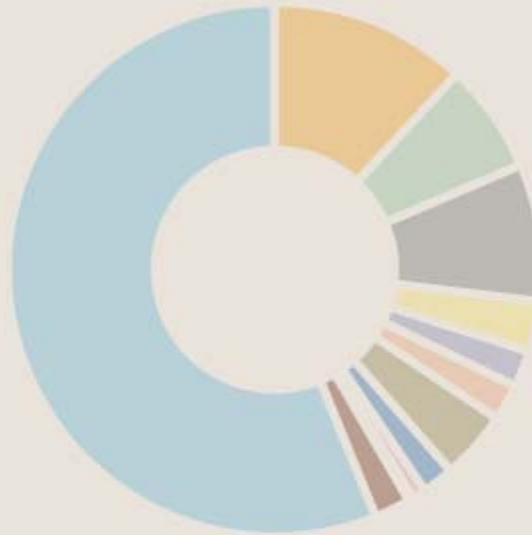
The Norwegian Government claims to be a climate leader, but state owned companies Statoil and Store Norske continue to invest in the extraction of dirty fossil fuels like Canadian tar sands and Svalbard coal. This needs to change.

The Svalbard society has developed a lot in the last decades and coal mining is no longer necessary to maintain the community, as tourism, science and education have now taken its place as basis for the economy.

Extracting coal does not give long term stability for any Arctic community, only short term profit. Extracting and exporting coal is no longer necessary and is not part of a sustainable future for any Arctic community.

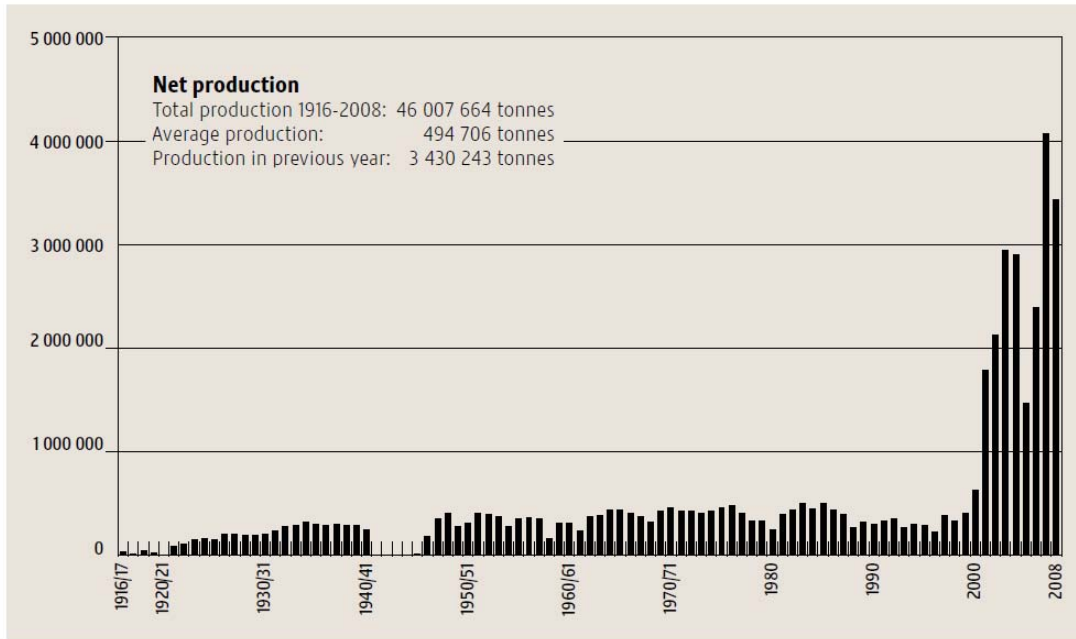
The world has more fossil fuel reserves than we can ever afford to burn without destroying the climate. There are no good reasons to exploit coal reserves in ecologically sensitive areas like the Arctic, and especially not for a rich nation like Norway. The Svea mine should be shut and no new areas on Svalbard opened for coal mining.

Store Norske's 2008 coal sales in tonnes, by country



Germany	56.3%
Denmark	11.9%
Portugal	6.5%
France	8.4%
Poland	3.0%
Norway (incl. Svalbard)	2.2%
Greece	2.2%
United Kingdom	4.1%
Finland	1.8%
Switzerland	0.9%
Iceland	0.2%
Netherlands	2.0%

Overview over receivers of coal from Svalbard in 2008 (Svalbard local consumption from the old mine in Longyearbyen, not Svea). From SNSK annual report.



Output from Svalbard mining operations has increased dramatically over the last decade (from SNSK annual report)