



SABIC'S PLANS TO BURN WOOD PELLETS IN BERGEN OP ZOOM: IMPACTS ON CLIMATE, FORESTS AND PUBLIC HEALTH

Typical clearcut forest in Estonia, Photo: Martin Luiga

Summary:

SABIC's plans to replace a natural gas unit with one burning wood pellets are driven by their and their parent company's, Saudi Aramco's economic interests to reduce expenses in order to have more money to invest in increased fossil fuel production elsewhere. Burning wood for energy is no better for the climate, and no less polluting than burning coal. If SABIC's biomass plans are realised, they will further increase Dutch pellet imports, putting more pressure on highly biodiverse ecosystems in the Southern USA, the Baltic States and/or British Columbia, which are the Netherlands and indeed the world's main pellet sourcing regions. Wood pellet production itself is linked to environmental injustices, including harmful air pollution, and burning wood pellets in Bergen op Zoom would worsen local air pollution.

Background:

SABIC, a Saudi multinational chemical and petrochemical company, plans to install a large biomass unit at its plastics manufacturing plant in Bergen op Zoom. The biomass plant, which is to burn 175,000 tonnes of wood pellets a year, will replace a natural gas boiler.

The reasons for SABIC's interest in replacing natural gas with wood pellet are financial ones: SABIC, like other polluting companies, is having to pay more and more money for the CO₂ emitted from burning fossil fuels every year, as the EU's carbon price goes up and the 'free carbon allocations', for which polluters don't have to pay, are being cut. There is no carbon price on emissions from burning wood. In addition, SABIC hopes to attract renewable energy subsidies for generating heat from biomass for their own use. Those economic reasons have been out in a report published by the Netherlands Environmental Assessment Agency (PBL).

SABIC's biomass plans are not climate-friendly

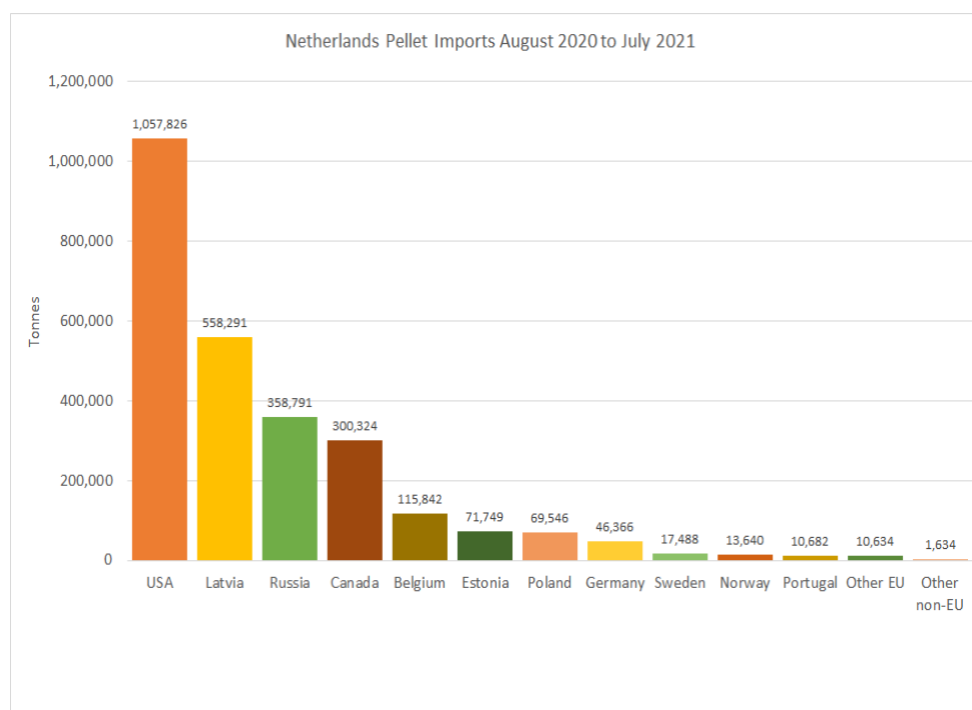
Will they help reduce overall fossil fuel use:

In Bergen op Zoom, the installation of a wood burning plant would replace natural gas and thus reduce the amount of fossil fuels burned. However, this must be viewed in the bigger context: As shown above, SABIC's plans are motivated by economic interests. SABIC's parent company is Saudi Aramco, the world's largest oil producer, owned primarily by the Saudi state. Aramco recently announced plans to further increase oil production by 2027, and they are preparing to start shale gas production on a very large scale in Al Jafurah. Far from helping to phase out fossil fuel use, their investment in biomass would help improve the company's finances and thereby assist with their new fossil fuel investments

Are wood pellets better for the climate than natural gas?

In short – no. In early 2021, 500 scientists signed a letter to world leaders, urging them “not to undermine both climate goals and the world's biodiversity by shifting from burning fossil fuels to burning trees to generate energy”. They state: “As numerous studies have shown, this burning of wood will increase warming for decades to centuries. That is true even when the wood replaces coal, oil or natural gas.” The European Academies of Science (EASAC) provide a good explanation and overview of the reasons why this is the case, which can be accessed [here](#).

Where might the wood pellets come from – and what will they mean for forests and communities?



SABIC has not provided any information about where it intends to source wood pellets. The amount of wood pellets burned in the Netherlands has increased steeply in recent years, to an estimated 3.1 million tonnes in 2021. Just 11% comes from domestic production.

Trade statistics show that the largest exporter pellets to the Netherlands is the USA, followed by the Baltic States, Russia and Canada.

Wood pellets from the USA:



Clearcut forests from which pellets company Enviva sourced wood, photo: Dogwood Alliance

The southeastern USA is the world's biggest pellet producing region. A significant share of the pellets are sourced from the clearcutting of coastal hardwood forests which lie at the heart of a global biodiversity hotspot. This has been documented over many years by environmental NGOs in the southern USA, as well as by investigative reporters, including for the Washington Post, Climate Central, Channel 4 Dispatches in the UK, and TV2 in Denmark. The majority of pellet plants in the region are located in environmental justice communities and thus disproportionately affect black and low-income communities through air pollution, harmful wood dust **pollution** and noise. A 2018 investigation by the Environmental Rights Project in the USA showed that more than half of the region's wood pellet plants

did not comply with the Clean Air Act.

Wood for pellets is also sourced from monoculture pine plantations. During the second half of the 20th century, the Southern USA lost over 13m hectares of biodiverse forest ecosystems, while pine plantations expanded by over 16m hectares. Demand for wood pellets is now a new driver behind this continuing trend. Monoculture tree plantations provide little or no habitat for wildlife and reduce resilience to climate change, for example by worsening fire risks.

Wood pellets from the Baltic States:



Typical clearcut forest in Estonia, Photo: Martin Luiga

This is Europe's largest pellet producing region. A 2020 report by Estonian Fund for Nature and Latvian Ornithological Society analysed the impacts which the growing wood pellet production for export is having on both countries forests, on forest carbon sinks, and on forest birds. In both countries, logging has been intensifying in recent years. In 2019, Latvia recorded its highest logging volume in 19 years, and logging volumes tripled in Estonia between 2008 and 2018, with clearcutting being the dominant logging method. Estonia's forest birds are declining at a rate of around 50,000 breeding pairs a year. In Latvia, the Hazel grouse declined by 79% from 2005 to 2018, and the Black stork by 60% from 1989 to 2018.

The large majority of forests in the region are semi-natural, i.e., they have been previously logged but consist of mixed native species and remain important for wildlife. However, in both Latvia and Estonia, logging is even happening in Natura 2000 and other supposedly protected sites, too. A 2021 report by SOMO documents that Estonian logging practices include logging in high conservation value forest areas,

in watersheds, and in peatland forests. SOMO specifically identified cases of problematic logging with possible links to Dutch pellet imports.

Wood pellets from Canada:



Oldgrowth forests for which a Canadian pellet company has got a logging permit, Photo: Michelle Connolly, Conservation North

Canadian wood pellets mostly come from British Columbia, where the great majority of primary and old growth forests has already been logged and very few of the remaining primary forests and sensitive forest habitats are legally protected.

The growing wood pellet industry for export, poses a serious threat to those forests. A 2020 investigation by conservation organisations documented that wood pellets from the region are routinely made from whole trees from inland rainforests.

Communities living near BC pellet plants have frequently expressed concerns about noise and pollution, as well as threats to the Boreal forest. Furthermore, widespread logging of boreal forests for biomass threatens many Indigenous Peoples' cultures and livelihoods.

Beware of claims that the wood will be sourced from 'residues' or 'low value wood':

So far, SABIC has said nothing about their wood sourcing plans. However, it is common for pellet companies and those burning forest wood to claim that they only sources 'residues' and 'low-value wood'. The terms forest residues and low-value wood are defined so broadly that any amount and size of whole trees can come under it. Please see this Biofuelwatch report on why such claims and assurances are without merit.

Bad for air quality in Bergen op Zoom:

Burning wood results in comparable levels and impacts of air pollution as burning coal. Although natural gas, particularly shale gas, results in serious pollution upstream (i.e. where the drilling happens), it is the cleanest burning of all fossil fuels. The local impact of replacing gas with wood pellets will be to increase levels of small particulates (PM10, including PM2.5), nitrogen dioxide, carbon monoxide and other air pollutants. Air pollution is linked to an increase in respiratory and heart disease and strokes. Air quality impacts of biomass burning are discussed in detail in a report published by the environmental NGO Fern.