

## Decision Closing of Coal-fired Powerstations in the Netherlands 2018

Here the recent announcement by the Dutch government:

***On 18 May 2018, Minister Eric Wiebes of economic affairs and climate announced that the Hemweg and Amer power plants, two of the five currently in operation, will have to close by 2025 and the remaining three by 2030 unless they switch to a more sustainable fuel; power generation by coal will be prohibited by law from then on.***

The ruling in the “Klimaatzaak” courtcase (Urgenda Foundation v. The State of the Netherlands, 2015) was the prelude to the decision to close all coal-fired plants. The court’s decision was that the government has a duty of care to protect citizens against the consequences of climate change. The state must ensure a CO<sub>2</sub> reduction of 25% by 2020.

The intended closure is a hot issue. The energy giants are not happy with it. Three of the five coal-fired plants, on the Maasvlakte and in the Eemshaven in Groningen, have just been put into operation in the last couple of years. Together they have cost nearly six billion euros.

### **Coal most polluting energy source**

Energy production from coal-fired plants is the most polluting energy source in the Netherlands, emitting millions of tons of carbon dioxide (CO<sub>2</sub>). In addition, they also blow large amounts of mercury, nitrogen and other toxic particulates into the air. The current energy production by coal-fired plants can easily be absorbed by much cleaner methods of energy generation, such as wind energy and energy from solar panels.

The Netherlands is not the only country that will close its coal-fired power plants. Environmentally polluting plants are also closed in the United Kingdom, Germany and the United States. Europe would also like China and India to do the same, 'But then we have to set a good example'.

Greenpeace states that keeping the coal-fired power stations open is not an option and biomass is far too expensive to generate electricity. RWE will receive almost €1 billion in subsidies over the next eight years to support biomass in its plants in Geertruidenberg and Eemshaven.

The owners of the new coal-fired plants in Rotterdam also emphasize that they only can get rid of cheap coal if they are compensated for it. One of the others Nuon, for example, would like to close the Hemwegcentrale plant already in 2020, provided that there is a compensation of €55 million. Several experts think that this amount is too high and call €10 million as a real amount. According to the company, that money is necessary for a social plan for the employees and the dismantling of the plant. The company announced that it 'respects' the government's decision. The company also sees opportunities for them, due to the growing demand for technical staff. "We need these people very much, because they are indispensable for the success of the energy transition", says CEO Marc van der Linden. The

company wants to start a retraining program together with the government, the energy companies and the trade unions.

### **Social costs**

The research agency 'CE Delft' describes here what measures are necessary to comply with the judgment in the so-called Klimaatzaak. In this, the court determined that CO2 emissions should be a quarter lower in 2020 than in 1990, in order to tackle the climate problem adequately. By also closing one or two new plants, the goal can really be achieved, and at lower social costs than other measures entail, according to the report.

According to researchers at the Technical University Delft, these measures cost the citizen about €80 a year, while closure of the new coal-fired power plants amounts to an extra €30 per citizen per year. In addition, it is not taken into account that the owners of these power plants are threatened with a billions claim as compensation.

'FNV Havens' (waterfront trade union) wants a "coal fund" to be established. Anyone who loses his job as a result of the closure of the coal-fired power plants must be able to access it. There are still five working coal-fired power plants in the Netherlands. When the power plants shut down, 2800 jobs will disappear, the Ministry of Economic Affairs said in 2016. The trade union argues that the government should release an amount of €600 to €800 million as compensation for job losses.

The NOS (Dutch national broadcaster) reported on 13 July 2016 on the basis of a 'leaked' report by Minister Kamp of Economic Affairs that 'Closure of coal-fired power stations costs €7 billion.' The €7 billion mentioned by the NOS was more than twice as much as the €3.3 billion that research agency Spring Associates, commissioned by Greenpeace, calculated at the end of June. While "Natuur & Milieu" (environmental group) calculated this spring that the closure would yield €5 billion in social benefits. Calculated over a period of several decades would cost €13 more annually per household.

The three most recent plants together have cost around €6 billion but - according to Spring Associates - have already lost value because the electricity price has plummeted. The research agency therefore thinks that just over €3 billion will be a nice compensation for all power plants together.

The **Institute for Energy Economics and Financial Analysis** (IEEFA) Report : '**Dutch Coal Mistake**' shows three New Plants in the Netherlands failing to live up to expectations and at risk of becoming climate-risk stranded assets. The author is Gerard Wynn, a London-based IEEFA energy finance consultant. Below are excerpts from his report.

The plants' underperformance is driven by current market trends that include falling power prices, rapid growth in renewables, flat or falling energy demand and new emissions-control policies. These trends may imply further write-downs to come for the Dutch plants.

Questionable decisions by RWE, Uniper, and Engie to put coal-fired generators in service in 2015 are proving costly in the face of shifting trends in electricity markets; very likely 'the last new coal-fired plants in Europe'

The report finds that all three plants are failing to live up to their original valuations and investment-return targets. The report concludes that the plants have a current collective valuation, on owner balance sheets, of about €2.5 billion compared with original construction costs of more than €6 billion.

The new plants are typical of a fading generation of coal-fired generation that is at risk globally to increasingly ambitious initiatives to cut carbon emissions. This is acutely evident today in the Netherlands, where a recent court ruling and a parliamentary motion supporting tougher actions to avert climate change represent a growing trend.

Mandated, early retirement of these new plants within the context of stricter climate policy and depreciation may be the most cost-effective way to meet climate targets in the Netherlands. Our analysis finds few if any scenarios under which these power plants can return value to investors. The owners of the power plants would prefer not to close the power plants without compensation, given the still positive cash flows. There are also gas-fired power stations that are more flexible as a back-up facility and are cleaner because they show less CO<sub>2</sub> emissions. The report states renewable energy sources such as wind and sun as more competitive than coal.

These plants are uneconomic in terms of meeting their original valuation and investment return targets, and their owners may have to take additional impairments. Their example rules out any new-build coal power in western Europe, while suggesting difficulties ahead for existing coal-fired generation.

The discrepancy between our valuation of the DCF and the book value of these three new coal-fired power stations suggests that RWE, Uniper and Engie have to pay close attention to their appreciation of the power stations. Given the European political trends and the developments in the energy market, he even provides lower valuations for the three coal-fired plants. The owners of the plants must take account of a further depreciation. Our analysis shows that the power stations are unprofitable. It is almost impossible to find a scenario in which these plants deliver investment returns. The Dutch coal-fired power stations were built with an expectation of robust growth in energy demand. This scenario did not meet reality. Nor was account taken of the enormous growth of wind and solar energy in Germany.

These three plants are a good example of why neighboring countries should not invest in coal-fired plants." According to Wynn, the lessons from the Netherlands apply to many developed countries, including OECD countries that have planned or are already building coal-fired power stations, such as Turkey, Japan, South Korea and Poland.

On the **opinion page of NRC** (± Dutch equivalent of The Australian) on May 17, 2016 EON / Uniper and Engie have already threatened billions of euros compensation if their new coal-fired power stations have to close. RWE / Essent even demands government subsidies to keep their brand new, loss-making coal-fired power station open, the largest in Europe.

Why should these energy companies be compensated? Against better judgment, they have invested for years in new fossil power plants. While the switch to sustainable energy had been going on for a long time and the government announced far-reaching climate policy. Now that the climate truth has overtaken them, they want compensation. In this way, the energy companies play a cynical game, since they still have to pay a high historical bills themselves.

Few raw materials are so destructive for humans and the environment as coal. Air pollution, water scarcity, displacement, degradation of ecosystems and, last but not least, the devastating effects of climate change. Research at the University of Harvard estimated the hidden costs of coal at "a third to more than half a billion dollars a year" for the US alone. The current climate crisis is largely due to the burning of coal. In addition to the impact on the climate, the hidden costs of coal are also in air pollution. When burning coal, nitrogen dioxide, sulfur dioxide, mercury and particulate matter are released in addition to CO<sub>2</sub>, with millions of victims as a result. In the Netherlands, 83 people die prematurely from the effects of air pollution by coal-fired plants and 19,000 sick days are recorded.

The extraction of coal also has a major impact on the freshwater resources in the world, which are already under considerable pressure. The five remaining coal-fired power stations in the Netherlands import 7.5 million tons of coal per year. A total of about 3.75 million m<sup>3</sup> of fresh water is needed in the countries of origin for winning this. This means that these plants use twice as much freshwater as all Dutch people together. This precious water is no longer permanently available for human consumption or agriculture.

But there are more hidden costs. In the Colombian mining area Cesar, where Dutch energy companies get the most of their coal, the price paid by the local population is very high. Around these mines more than 3100 people were murdered between 1996 and 2006 and 55,000 people were expelled from their land by paramilitaries.

Energy companies have made so much profit with their coal-fired plants for decades, because they never had to pay for the damage to the environment and human suffering. Instead of

compensating them for their bad choices, it is high time that they pay for the hidden costs in their chains.

### **Sovereign Risk**

In the reporting on the coal closure little was said about 'sovereign risk'. However the article in the Guardian is discussing Economist Saul Eslake's report for the Australian Conservation Foundation says about sovereign risk :

Sovereign risk had a much more precise meaning in financial markets than the way it's bandied about by politicians.

Sovereign risk is about the risk that a government defaults on its debts and clearly Adani has nothing to do with that.

To say a government decision to withdraw the Adani Carmichael mine permits would be a sovereign risk would be completely abusing the term.

The report argues that over the past decade the term sovereign risk has been used more broadly to apply to almost any government policy that might adversely impact investors. But it goes on to say that Australia's sovereign debt rating has not been affected by past policy decisions made by governments on environmental grounds, such as bans or restrictions on unconventional gas exploration in the states and territories.

There have been numerous examples in Australia over the last 40 or so years where governments have made these decisions that have had some impact on foreign investment without impacting our credit rating, or the credit ratings of states, or without having perceptible effects on flows of foreign investment.

There's no reason to think that a decision by future governments to revoke whatever approvals might have been given by another government for the Carmichael mine might affect our credit rating or material ability to attract foreign investment.

### **Political background**

Decisions by the current Dutch Government for 3<sup>rd</sup> term led by Mark Rutte (Kabinet-Rutte III) On October 10, 2017, the four party leaders and Salmon presented a coalition agreement, according to which all coal-fired plants must be closed by 2030. It was reported that at least one plant would be closed during the forthcoming cabinet term, but the coalition agreement only mentions the following: "The coal-fired power stations will be closed by 2030. In a closed National climate and energy agreement [sic] agreements are made with the sector on the timeline, and subsidization of co-firing biomass in coal-fired plants will be discontinued after 2024. " By 2030, the Rutte III government wants to achieve a CO2 reduction of 49% or 56 megatons compared to 1990, of which the coal-fired power plant would have 12 megatons (21.4% of the reduction, 11.7% of the total CO2 emissions).

On 18 May 2018, Minister Eric Wiebes of economic affairs and climate announced that the Hemweg power plant and Amer power plant will have to close by 2025 and the remaining three by 2030 unless they switch to a more sustainable fuel; power generation by coal will be prohibited by law. The government refuses previous proposals to buy out the power plants,

which Nuon accepted, but led to strong criticism from the environmental movement and RWE. Greenpeace announced that the 2025 deadline was 'richly late', that they could easily be closed before 2020 and that it would be very difficult to reduce CO2 emissions by 2020 by 25% compared to 1990, as the Urgenda ruling obliges the government. RWE stated that it was considering taking legal action because of the announced early ban and stated that "the proposed measures do not form part of a comprehensive, balanced energy policy, they will not lead to a reduction of CO2 at European level." It is an unwise step in the development towards a cleaner future."

#### Currently operating coalfired powerstations.

Power Station	Name Unit	Owner	Location	Nominal Capacity [MW]	Opened	Close d at Latest	Cost to Build
<a href="#">Engie Centrale Rotterdam</a>	Missouriweg 69	<a href="#">Engie</a>	<a href="#">Maasvlakte</a>	800	2015	2030	
<a href="#">Eemshavencentrale</a>		<a href="#">RWE</a>	<a href="#">Eemshaven</a>	1.560	2015	2030	€3.2 billion
<a href="#">Centrale Maasvlakte</a>	MPP3	<a href="#">Uniper</a>	<a href="#">Maasvlakte</a>	1.070	2016	2030	
<a href="#">Centrale Hemweg</a>	Hemweg-8	<a href="#">Nuon(Vattenfall)</a>	<a href="#">Amsterdam</a>	630	1994	2030	
<a href="#">Amercentrale</a>	Amer-9	<a href="#">RWE</a>	<a href="#">Geertruidenberg</a>	600	1994	2030	

Note : Engie is the French owner of Hazelwood; RWE & Uniper are German; Vattenfall is Swedish.

#### Coal-fired Power stations already closed.

Power Station	Name Unit	Owner	Location	Nominal Capacity [MW]	Opened	Closed
<a href="#">Amercentrale</a>	Amer-8	<a href="#">Essent(RWE)</a>	<a href="#">Geertruidenberg</a>	645	1981	2015
<a href="#">Centrale Maasvlakte</a>	Maasvlakte I	<a href="#">Uniper</a>	<a href="#">Maasvlakte</a>	480	1973	2017
<a href="#">Centrale Maasvlakte</a>	Maasvlakte II	<a href="#">Uniper</a>	<a href="#">Maasvlakte</a>	480	1974	2017

Power Station	Name Unit	Owner	Location	Nominal Capacity [MW]	Opened	Closed
<a href="#">Elektriciteitscentrale Gelderland</a>	Gelderland-13	<a href="#">Engie</a>	<a href="#">Nijmegen</a>	602	1982	2015
<a href="#">IJsselcentrale</a>	Harculo-60	<a href="#">Engie</a>	<a href="#">Harculo</a>	135	1955	1983
<a href="#">Kolencentrale Borssele</a>	Borssele-12	<a href="#">EPZ</a>	<a href="#">Borssele</a>	406	1987	2015
<a href="#">Maascentrale</a>		<a href="#">PLEM</a>	<a href="#">Buggenum</a>		1954	1996
<a href="#">Willem-Alexander Centrale</a>	Buggenum-7	<a href="#">Nuon(Vattenfall)</a>	<a href="#">Buggenum</a>	253	1994	2013

## **Resources**

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