

Impacts of Proposal to Phase-Out Dutch Coal-Fired Power Generation by 2020

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In our efforts to drive for a more sustainable society where our energy consumption does not threaten the climate or natural life. One should look at energy consumption and generation from a macro or global perspective. Modern, first world societies, consume large amounts of energy to live, work, and travel. Efforts are being made to drive more efficiency and to derive energy from sustainable energy resources. For the foreseeable future, base load power generation will continue to be an essential component of reliable power. As we seek to mitigate the impacts of energy consumption by developing alternative energy supplies we need to consider transitional strategies to ween ourselves of fossil-fired and nuclear power generation.

The Netherlands natural resources for power generation include on and off-shore wind resources, deep efficient ports for transportation of fuels, bio-mass fuel, co-generation of power and steam, and carbon sequestration assets such as its proximity to off-shore abandon gas fields. Phasing out all coal fired power generation by 2020 will not have the intended benefits that are expected. Power transmission areas and markets are interconnected across Europe. Shutting down some of the most efficient coal-fired generation (new technology plants with cogeneration of power and steam for commercial and residential use) will result in carbon leakage in other parts of Europe and increase power prices for both the Dutch and other European Nations. Furthermore, The Netherlands will be more reliant on transmission imports from Germany and its other neighbors to meet its energy needs.

The power industry in Europe and North America is undergoing a significant transformation. Environmental and energy policies are encouraging energy efficiency and renewable generation to reduce our reliance on nuclear and fossil-fired generation. The challenge we have is this new source of energy requires subsidies to compete in competitive wholesale power markets and significant investments in transmission and distribution infrastructure is needed to accommodate this policy shift. Despite the significant investment in renewables we have a long way to go. The majority of our power (+85%) is still supplied with conventional central station power. New approaches and investments are needed and will likely take another investment cycle to make the transition. Power market designs, regulatory changes to encourage transmission expansion, and distribution infrastructure investments are needed to make the grid smarter and more resilient. In the interim central station power fueled by natural gas and cleaner coal facilities are necessary to transition to a greener world.

The Netherlands has newer fleet of coal-fired generation than its neighbors to the east and south. These newer power plants with advanced pollution controls and co-generation capabilities should be the model on how to utilize our coal resources until we can ween ourselves of fossil fired generation. These plants should be the model for Eastern Europe China, India and other developing economies that are going to be building coal-fired generation to meet their energy needs. We have also not yet experienced the impacts of retiring of the nuclear generation in Germany and Belgium anticipated for 2020. The retirement of nuclear units and less efficient coal plants will put more pressure on the gas supply. Fuel diversity in this time of uncertainty will be an important for national security from a reliability perspective.

The Netherland co-fired generation represents 1% of Carbon Emissions across Europe. Sound environmental policies should look to use these plants as a model and further encourage co-firing of biomass and carbon capture technologies so that the world can learn from the Dutch how coal can be a

cleaner component of our base load generation as we continue our path for a more sustainable energy future.