



HORIZON 238

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Mr. Prime Minister Alexander De Croo,
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Subject: Belgium's energy future

Mr. Prime Minister,

We are writing to you as Belgian citizens, concerned about preserving a prosperous and sustainable world for future generations, and worried about Belgium's current energy trajectory. Our country is about to make a decision that will irreversibly shape its energy landscape for decades to come, and which will undoubtedly become one of the most significant chapter of your government's legacy. It is therefore essential for the issues at stake and their consequences to be fully grasped.

Energy is more than a monthly bill. It is the foundation of our society and the cornerstone of our economy. Its abundance led to our current quality of life, emancipated our society, and shaped the world as we know it today. Limiting the environmental impact of the energy we consume in a sustainable energy transition is an immeasurable challenge: CO2 emissions need to be reduced by 55% by 2030 compared to 1990, and carbon neutrality must be achieved by 2050. The IPCC made it clear in its sixth assessment report¹ published in early August: it is code red for humanity. We, Belgian citizens, emitted 90 million tons of CO2 in 2019². This number has not changed over the last five years.

To achieve this, our dependence on fossil fuels must come to end. Fossil fuels still accounted for more than 80% of Belgium's total energy consumption in 2019³. Yet the climate priority dictates the need to leave fossil fuels in the ground and to use alternative low-carbon energy sources: renewables are an option for sure; and so is nuclear energy.

The government's decision to phase out nuclear energy –the first source of low-carbon energy in Belgium– and to finance new fossil gas power plants through the Capacity Remuneration Mechanism (CRM) is therefore paradoxical and counterproductive. This decision would only reinforce the predominance of fossil fuels in the Belgian energy landscape. The belief that nuclear power plants need to be shut down for renewable energy to be developed is simply a false dilemma. Other countries such as Finland, the United Kingdom and Canada have chosen to build their energy transition on these two low-carbon energy sources.

Our support for nuclear power comes from an honest observation: renewables are a cornerstone of the energy transition, yet on their own they will not be sufficient to decarbonize our society in time. This is all the more true for Belgium, a densely populated country with limited hydro, wind and solar resources. This vision of the energy transition is shared by many international organizations, such as the IPCC (Intergovernmental Panel on Climate Change) and the International Energy Agency (IEA)^{4,5,6}. In their climate scenarios, nuclear energy is a key element of the energy transition for the replacement of fossil fuel power plants.

The debate on nuclear energy has too often been dominated by dogmatism and emotion rather than pragmatism and reason. Caricatures of nuclear energy, such as the distortion of the Fukushima nuclear accident, have strongly contributed to degrading its image in the public debate. The accident has obviously reminded us that the nuclear risk exists, but it must also teach us to put it in perspective with the climate risk. In the wake of the tenth anniversary of Fukushima, the United Nations published a report stating that the nuclear accident had had no adverse effects on the health of the inhabitants of Fukushima⁷. In comparison, fossil fuels are responsible for the deaths of seven million people worldwide every year⁸. New gas-fired power plants will therefore do far greater harm to Belgian citizens' health than nuclear plants. The most recent European Commission's Joint Research Centre (JRC) analysis on the inclusion of nuclear energy in the sustainable finance taxonomy⁹ concluded that there is no science-based evidence nuclear energy does more harm to human health or to the environment than other electricity production technologies already included in the Taxonomy, such as wind or solar.

We therefore ask you, Mr. Prime Minister, to implement a long-term policy based on figures and facts. We ask you to put the common interest first and to consider only decarbonized solutions. We ask you to work for a sustainable future where we can tell our children and grandchildren that the choice of reason was made.

As a privileged country, Belgium has a moral obligation to live up to its potential and ambitions. We need to be responsible for our greenhouse gas emissions and cannot rely on our neighbors through the Emissions Trading System (ETS). Indeed, the current strategy assumes that other countries will be able to compensate for our excess emissions, and this is far from obvious. In view of the climate emergency, these risky calculations are a gamble we cannot afford. The physical reality is crystal clear: each country must reduce its emissions as much as possible. Furthermore, a lifetime extension of our nuclear power plants would also reinforce our security of supply. Limiting massive imports of gas and electricity would lower the dependence on other countries and the volatility of costs that can be harmful to our industry.

The first CRM auction, organized by the grid operator, will take place in October 2021. The construction of new gas-fired power plants will probably be necessary, yet extending the most recent nuclear reactors could still reduce their number. Let there be no mistake, every new gas power plant subsidized on Belgian soil is an admitted act of pollution over several decades. The plants built in 2025 will remain in the energy landscape beyond 2050, the target date for carbon neutrality.

Belgium has the luxury of cutting-edge expertise in nuclear power acquired through sixty years of innovation, construction and operation. Our country has the opportunity to use this expertise to prepare its future more serenely. Today, the MYRRHA project developed at the Belgian nuclear research center, is a research pioneer for recycling nuclear waste¹⁰. In the near future, Belgian nuclear engineering could take the forefront of the hydrogen economy and of the deep decarbonization of industrial sectors that are difficult to electrify, leveraging new, more versatile and more sustainable nuclear technologies¹¹. It is

clear that the nuclear industry still has much to offer if given the opportunity. A precipitous phase-out from nuclear energy in 2025 will result in the irreversible loss of an invaluable asset in the fight against climate change.

We, Belgian citizens, have entrusted the government and you, Mr. Prime Minister, with the extraordinary capacity to take actions with a decisive impact on our society for decades to come. The decisions you take today will be appreciated by future generations. Your responsibility therefore requires you to look at the energy transition as a whole, beyond the development of renewable energies. You have the opportunity to make your mark on the Belgian energy landscape. We urge you to do so in order to propel our country to the forefront of climate exemplarity.

Our wish, Mr. Prime Minister, is that the political choices made 18 years ago be re-evaluated. We ask you to reconsider the nuclear phase-out. Because it is a low-carbon energy source, nuclear energy must be part of the energy transition roadmap. A ten-year extension of the most recent nuclear reactors goes beyond a reduction of our CO₂ emissions. It is the prerequisite for maintaining the Belgian expertise necessary to benefit from technological revolutions that the nuclear sector still has to offer. Given today's profoundly different context, the nuclear phase-out law passed in 2003 must be reviewed.

We look forward to seeing Belgium distinguish itself under your leadership, Mr. Prime Minister, and become an example of a successful energy transition where energy sovereignty, the government's credibility and ecology would all come out on top.

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