

Speech of the Annemie Turtelboom, Flemish Minister of Budget, Finance and Energy, at the occasion of the FEBEG event: Electricity Storage: 'from technology to market solutions'

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Ladies and gentlemen,

Firstly, I would like to thank the organizers for giving me the floor here, and more importantly, to be willing to address this topic and to dedicate a seminar with a very full program to it. This is certainly no luxury. And I will tell you why.

In the Flemish Government, I am in charge of the departments of Energy, Finance and Budget. At the time of my appointment, I immediately had the intention to install very clear dividing walls between these departments. That is not surprising, given the fact that this *prima facie* indeed is about delineated and separate themes.

Such an approach, however, is a little too classic or simply even outdated. Whoever looks at the challenges in terms of climate and environment, should notice that these issues take no account of such imaginary concepts. The climate problem ignores all borders, not between states, nor between policy areas. The same goes for the environment. Pursuing a policy is not done at random, it will always be determined by context and environment.

I realized this all too well when I became Flemish minister. That context or environment in Flanders sadly is not too good when it comes to the environment and more specifically to air quality. Whoever takes a map of Europe's particulate emissions, will notice - somewhere in the heart of Europe - one big black spot. You may guess once; that indeed is Flanders.

Although in Dutch language, confusion about the true nature of "particulates" may arise, on the basis of increasing scientific evidence today, we know: "Particulates really are not cool."

Particulates are an assault on the quality of life and health of every inhabitant and - as revealed recently in a study by the University of Antwerp - children in particular. Some of the consequences are reduced condition, physical aging, more likeliness to have asthma, and many other ailments. The causes of soaring emissions of particulates are well known: Belgium is a country of diesel cars. This region counts 2.5 million diesel cars and 1.5 million gasoline cars. Only a mere 0.5 percent of cars driving in Flanders today are electric ones. 0.013 percent are natural gas cars. That ratio is completely skewed.

As a policymaker, you should ask yourself how you should do something about this. At such a time, it really does not help if you revert to the classical approach of your powers. What you should do, is make a comprehensive analysis of the tools you have at your disposal and see how they can be reinterpreted for levers for change. I did so for the first time with the reform of the gift tax, by lowering them and by creating extra incentives for those who are willing to make their home energy efficient by renovating it.

In October of this year, I did so for the second time. On that occasion, the Flemish government made an important decision to green the road tax. Whereas the old parameters actually broadly perpetuated the status quo, we have chosen to turn both the tax on entry into service as well as the annual road tax into powerful steering instruments.

As from 2016, whoever is willing to buy a new or other car, will have a very clear and fair choice. Whoever prefers a polluting diesel car will pay extra charges. On the other hand, whoever prefers a

fuel-efficient gasoline car will pay less charges. And whoever prefers electric cars, CNG cars, hydrogen cars or plug-in hybrid cars will pay no charges at all.

Starting from that time and since Elon Musk's visit to Belgium, my cabinet is overwhelmed with questions about what would happen if suddenly everyone would begin to purchase and to use electric cars. Do we have sufficient enough energy supply for this? Will energy become more expensive? What will we do in case of a power shortage? Shall we all be stationary? These obviously are not illogical questions. It indeed is fine that people are touched by this topic. This, however, demonstrates that in addition to a road tax shift, a mind shift too is needed to remove the people's doubts about new technologies. Notwithstanding this fact, I notice within my policy Energy that more and more people are in favour of renewable energy. According to a poll, about 75% of respondents believe in renewable energy as the energy of tomorrow. That kind of support for energy-efficient cars currently does not exist yet. And therefore still must grow. That can only happen if we answer some of the questions above.

This seminar is a pathway to those answers. In this regard I can say with great enthusiasm that today's seminar will be a success. This of course has a lot to do with the fact that I have great confidence in the future of new technologies, which will unfold a new revolution concerning the probably most important issue of our time: The storage of energy.

Just because of this, electric cars do not need to be a challenge for our energy supply, but a massive opportunity on the contrary. A doctoral study of the Flemish university of Brussels (VUB) demonstrated even that one million electric cars that can serve one hour per day as energy storage, mean that one nuclear power plant can be closed. Later, Professor Yuri van Mierlo will provide you with some more striking figures. Yet another study, by the CREG, has analysed what would be the impact on the price of electricity of one million electric cars.

I do not want to anticipate today's debate but nevertheless I'd like to emphasise the most important conclusion: Contrary to what one might expect, there are no negative consequences at all. By using the spare capacity of the car battery, it can even provide a general price reduction. This is because cars can be recharged at times when electricity is inexpensive and can be unloaded when electricity is less available. So having one million electric cars in Flanders, will mean having the largest energy storage capacity in Flanders ever.

Developments in this regard are not limited to our vehicle fleet. By refining the technology of electric cars, the range of other applications of better and stronger batteries will only be increasing. With the battery of our electric car, parked at home, we will not only have our lights burned, also the independent storage of electricity for domestic use will be within easy reach. It is no coincidence that carmaker Tesla is working simultaneously on large home batteries, which for example, can store solar energy for use at night.

This has enough potential to carry a real turnaround in energy policy. Whereas in the past, we always had to build hulking giants of power plants for our energy supplies, in future we will be able to produce, store and consume locally.

The best part of all this is that we can introduce unseen competition on the energy market, as opposed to the social cost of a nuclear power plant. The latter is often concealed, but I doubt very much if a nuclear plant could run without subsidies, if only because of the priceless insurance costs.

As a liberal and economist by training, the latter is really essential to me. I do not believe in processes that cannot stand the touchstone of the economy. Evolve towards less funding was provided not only

by ideological reasons, it also is the only way we can create greater support for these new technologies. By over subsidising, the necessary broad social consensus will be broken.

As the Flemish Government, we therefore proceeded thoughtfully. For the reform of road tax, we clearly preferred to work with steering instruments and a premium for electric vehicles that is clearly defined and limited in time. The last thing we wanted to do, is disrupting a developing market.

That is our policy line in everything concerning energy storage. What we really are not going to do, is repeating the mistakes made in the past and turning on the money tap to such an extent that we must economize for a decade again.

What we need to do on the other hand, is first of all make sure that we appreciate the versatility of storage technologies. Indeed, there are so many more storage technologies than just batteries: Power to Gas, as e.g. the Colruyt group is using, but also hydropower, heat storage and compressed air. To avoid favouring certain technologies, we have to introduce a technology-neutral policy, such as the Flemish government has done for example in the exemptions of the road taxes.

Secondly, we must work towards an economic environment that allows research and development of energy storage capabilities. We do this by specifically providing Flemish and European support for research and development. But if we, apart from that, also want to allow complete private employment, we must continue to build on the competitiveness of our country. Both in terms of job creation as well as in value creation, both these elements are essential.

Also, we have clearly recorded this ambition in the Flemish coalition agreement, and with it, a specific mention of the need for innovative solutions to energy storage and the opportunity to create economic growth and additional domestic employment.

With your seminar today, you are contributing in making the possibilities visible, understandable and concrete. Therefore, I wish to thank you once again for this initiative and wish everyone an interesting and pleasant afternoon.

Thank you for your attention.