

Oral History Interview Transcript with Annemie Turtelboom

Sara Turtelboom: OK, perfect. So, hello, I'm Sara. I'm a third year here at UChicago. This interview is to look into the changes in energy use and experience throughout the last century or so. And I'm just, you have the right to refuse to answer any questions that I ask if you don't want too. I'm going to be interviewing my aunt, Annemie Turtelboom. Are you happy for this interview to be recorded and kept by the University of Chicago?

Annemie Turtelboom: Yes, I'm fine.

Sara: Sounds good.

Annemie: And I wish you all the best for the interview.

Sara: Thank you. And yes, I think that's everything. Would you be happy to tell me a bit about yourself, where you're from and what you've done in your career? I know there's a lot, but just some of the things.

Annemie: I am Annemie Turtelboom. I am Belgian and currently working in Luxembourg. I'm an economist by formation and I was a teacher for 10 years. After that, I became for eight years a minister in the Belgium and Flemish Government and one part of my portfolio was, besides migration and justice and Home Affairs, also energy and currently I am a member at the European Court of Auditors. It's a counterpart. It's comparable to GAO in the US. When we are auditing, we are the independent and external auditor of the EU, and we are auditing the EU budget and I also wrote a book.

Sara: Yeah, very exciting. And I also didn't say this at the start, but we'll be speaking in English, but if you want to say anything in Dutch at any point, that's OK. I'll translate it for the transcript.

Annemie: OK, that's fine.

Sara: And can you please tell me a little bit about any like major transitions you saw possibly whilst you were working in the Flemish Ministry for like Finance and Energy? In general, anything you saw or worked on to do with energy that you think might be of interest?

Annemie: Well, there are actually quite a lot of changes there because when I was in the Flemish Government, we, for example, we introduced the lower taxes for people who were driving a zero-emission car. Which means that there were actually zero taxes to pay when someone is driving or boat a zero-emission car, meaning an electric car or a hydrogen car. In practise, it means only an electric car, as on hydrogen that it's not actually. Not yet. There are no. There is not enough offer at this moment on the market. That's one example. Second example is and that's a major example is that, like all European countries, Belgium is also in a transition going away from, but OK, Belgium is actually the already for many years the country where we don't no longer use coal unless in other member states it is still used, but the words more renewable energy meaning that in Belgium we invest quite a lot in windmills on the sea, but also on the land side. Of course, also solar panels. But having said that, we are not. We don't have the amount of sun that for example Spain or Portugal has we still have like half of our energy at this moment coming from nuclear, from the nuclear power plants. And we also have a part coming from import, but the main part is that there is a transition towards more renewable energy. Now, what is the challenge is that we are a very small country with not many inhabitants, but there are quite a lot of inhabitants per square metres. On top of that, we don't have if we compare with Switzerland or Austria, we don't have like the mountains where you

can put below the mountains, the electric, how do you say it even in Dutch? Where you put it at the foot of a mountain and when there is the water is coming down. You have these little.

Sara: Oh, a dam like a hydroelectric dam on a river, yeah.

Annemie: Yes, exactly, exactly. But as we don't have mountains, we can also not use this. For example, that is, when you compare our statistics or renewable energy with, for example, Austria or Switzerland, we are far below, though we have more windmills and more solar panels due to this. And why is that important? Because that - how do you say it in English again?

Sara: Hydroelectric dams.

Annemie: With the hydroelectric dams, it's of course it's also base load, because of course with the renewable energies from windmill and solar panels it is not base load, so it means that you are still also reliable on this on the base load coming from biomass or from nuclear power plant. Of course, a third part you always you also see is on the financial market. And there I see mainly a huge difference and I dare to say that Europe is actually a front runner on the green bonds. But of course, with the potential damage that there is greenwashing. But you see that also the financial market is really following and is actually also issuing more and more green bonds. Why is this important? Because that's also an important trigger that you not only rely on research and development and new technologies, but that you also that the market, the financial markets from the other side also following. Now, having said that, wait one second because my daughter is...

Sara: No, it's OK. Do you want me to pause the recording?

Annemie: No, it's fine. OK, so that are actually on top of my mind. Three very important things. Personally, I was quite I was very much touched, not touched, but moved and it changed a lot in my mind. I was as a Minister of Home Affairs. I was responsible for the safety of the nuclear power plants, and it is it is atypical because often it is in the competence of the Minister of Energy. But Belgium is the only country in Europe where it is in the competence of the Minister of Home Affairs, which is actually, and that's a good thing because it, you will not give something in on safety for energy before having for - energy bevoorrading [*English translation: supplies*] - reliance on energy.

Sara: OK.

Annemie: Because otherwise you could say I lowered the standards on security or on safety because otherwise there might be a lack of energy, so that reason why they put it in Belgium in the competence of the Minister of Home Affairs, but during that period, the drama of Fukushima happened and I still remember that quite a lot of nuclear engineers they said but it's not so tough. It's not so hard as Chernobyl, but OK afterwards it happens that actually it was. It was even worse than Chernobyl. And for me, it changed quite a lot because the probability that something is happening within nuclear power plant is very, very low, but if something happens, then you damaged a part of the earth for like not only decades, but like centuries. And so that, before that was more like neutral, not neutral, but I saw the advantages also of nuclear energy in the sense that it's not, there's no CO2. So, if you want to reach the Paris Agreement targets, it's hard to reach it with only the renewable energies and without nuclear energy, because that gives a base load, it actually no CO2 emissions. Whereas if you work with biomass, you have all the time CO2 emissions, and that is quite also complicated, not complicated, but has that has a downside. That is like on top of my mind, and of course in Europe all over Europe, you see there is quite a lot of government support to motivate people to go more towards renewable energies also at a personal level. What is my dream to finish for an individual, not for a private company because there are too many differences? For me my dream would be that you can become, to a certain extent, self-sustainable in

the sense that you have like you have your solar panels on top, you have a battery in the house that gives you enough storage to overcome the winter, that also your electric car can be used as actually a battery, and not only as a car to drive. And we are not very far from that. But we are not yet there to make it, to make it affordable for everybody. So that is actually, and I think these things, if we could go towards something like that and then maybe also for some private companies, because private companies who are working in services, honestly, they don't consume so much energy, of course for the petrochemical cluster here in, in the port of Antwerp, which is the 2nd largest petrochemical cluster in the world after Texas. Yeah. For them you will always need more than the solar panel, but OK that is something. And then the last thing, really to finish now I'm talking things come to my mind, is the energy transition puts also very bluntly on the table, the equality in the society or the inequality, meaning that doing that energy transition that it comes with the price because you have to replace, well, a lot of your power where the energy is coming from. You need to dismantle, for example nuclear power plants, if you go to the dream of 100% renewable energy. But then what are you going to do with your nuclear storage? Where are you putting it? Also dismantling a nuclear power plant is actually very expensive. Also, buying another one is also quite also building another one is quite expensive. So, this energy transition comes with a price, and whatever people say it is not. Wait one second. It's my sister.

Sara: No worries.

Annemie: Viola. I'm back. I'm in a serious interview. I need to concentrate. So, the inequality is actually also put bluntly on the table and that will be because, that can, that may not jeopardise the energy transition that is needed. But of course it has a huge influence, because if you cannot pay everything with money that comes from the government, then you actually you need to well, you need to find a, you need to find a solution for that. It's doable, but it's not, it's a challenge.

Sara: That's all really interesting. I wanted to ask when you mentioned about wind energy in Belgium, is there a big difference or do you have a preference between it being onshore versus offshore?

Annemie: Well, it is actually. The only difference is that actually it's much more efficient on the seaside than on the land side,

Sara: OK.

Annemie: Because there is just more wind. But to give you an example, the energy where we are at this moment is in Belgium that you have the wind energy, and the solar energy is at this moment 12.5% and 7.3% of the market. So, this means below 20%. And then you have 47% is coming from nuclear energy. And then gas was still 26%. So, you see you have actually half is nuclear energy, 1/4 is gas and 1/4 is wind and solar. So why am I saying this? Because it is also important, at a certain moment that um, if you want to do this energy transition in a decent way, you will need to talk also about energy efficiency, and that is something that we learn now in a very hard way, due to the war in Russia that we want to lower our dependence of Russian gas. So, there are quite and, the statistics were quite amazing, but because in a certain period as the prices were so high and some households were looking at like a monthly bill of €1000. But if you know that the minimum wage in Belgium is below €2000, well, you cannot. You cannot well you, you. I don't have to make painting to, to show or to picture that is actually quite complicated for many people. And then there were quite a lot of savings, but you see immediately that is dying down going down. And as there is more, there was more storage to overcome this winter. You see immediately that the energy efficiency is going down. So, I'm a strong believer also of the fact that energy efficiency is actually very important. OK then and then I'm coming to the to the part of the inequality, because renovating a house is expensive and if you need to do it like in a way that it's, I wouldn't say passive house, but a very well-

run energy efficient house. It is very expensive and on top of that the payback time is super long, even though the prices are high, because even if you save like €300 a month, OK, that's per year €3600. You will not replace many of your Windows, and you will not do a lot of insulation of your walls. And also, having said that, when you live in the city centre, it's not always easy to do it in a way that is that is actually acceptable. And there comes the inequality on the market and this might what I've said. This puts like quite a lot of weight on the shoulders of people to want to get the energy efficiency done.

Sara: Yeah, that makes sense. This is a pretty like niche question, so it's OK if there's no answer for it. But when you were working in the ministry to do with energy and finance, did you have any colleagues who were older than you, who would've, like, seen and worked with energy like in previous years? Like in the, I don't know, 80s or 90s or something, and you could see they had a different perspective on things maybe.

Annemie: Oh, but it is still it's still very present at this moment in European politics and that comes to due to the invasion of Russia in Ukraine that put really the debate very sharp because before that everybody was busy with energy transition. But okay there was a pressure, but the pressure was also not. How shall I say? The there was a pressure because Europe has a lot of targets, but now it became real and on a very short term. And there you see, for example, the Greens are normally completely against nuclear energy. They are now, they made U-turn and they are saying on the continent. Look, at this moment we need nuclear energy, otherwise it will not be doable to make that transition on the short term. So yes, that debate is there. That debate is there, and you may not forget because you study in the US, but for us it's completely it's, it's another picture on the continent. And then I'm not talking about UK and then I'm not talking about the US, but really like the reliance. There are countries who rely on Russian gas, for example the North Stream, the pipeline between Russia and Germany that is now really under where people said about Angela Merkel what have you done? Why were you in favour of the Nord Stream? Well, there was one reason why she was in in favour. It was the German economy and that is the strongest economy in Europe. So of course, she was in favour, but now it feels. I wouldn't dare to say odd because it's even not odd, but now it's like a very much question. Like is this the right thing to do currently? On top of that, you have this also this situation that for example, OK, it's not a European Union country, but Norway. They are becoming rich without doing anything because everybody is saying we need gas from Norway. So due to demand and offer as an economist, I know that actually when there is a shortage on the market, the prices are going up. So it is, I think if you compare now, I think the energy debate, but correct me if I'm wrong, is much more intensive on the continent than in the United States.

Sara: I don't know currently. I don't know enough detail currently, but that is very possible.

Annemie: Because, but this is also question of the strength of your economy. It's the strength of your economy and it's also important because in, for example Europe, there is also quite an important car industry. But the car industry when you do the transition to fully electric cars, it needed Tesla to shake up the markets, certainly in Europe, because everybody was saying oh, but it's diesel and why it's not so bad the gas cars and so on till the moment that the market was really started shifting. Then they said, oh, we need to do something otherwise we might lose completely the battle with China with the US, and honestly needs to be seen whether we can still to keep enough of our production on it. Maybe something important that is that I want to say is it's not completely related to energy, but it is partially, is the fact that actually you also have the whole climate debate.

Sara: Yeah.

Annemie: I already talked about the Paris Agreement and then this energy transition is also very important. Now, currently I'm working at the European Court of Auditors, and we meet very recently a debate, a report, when we checked out of €200 billion, that Europe is labelling as "climate" European budget, whether it is really 200 billion climate budget and then we saw that actually this 200 billion was for 72 billion inflated and for 72 billion was like, we put the stamp of climate on, but it was not really climate. OK. So, I wouldn't say it's it was not greenwashing. It was more climate budget washing.

Sara: OK. Yeah. And I had. Oh, sorry. I just had a question. Give me a second.

Annemie: For this, no worries. Take your time.

Sara: Do you know much about – well I assume you would but - to do with the different energy sources and the different demands they had for employment in Belgium? Like do some types of energy, are much more beneficial because they hire more people or less so. Do you know what I'm trying to say? If you want me to be more specific, I can.

Annemie: Yeah, I understand what you want to say. There are a lot of calculations that are seeing that the transition to renewable energy will actually create a lot of jobs. Of course, there are also other jobs that we lose, so for me I haven't seen yet, and I really like a cost benefit analysis of what is actually new? And what will be completely new jobs or like jobs that are replaced by other jobs. So, I am actually not. I haven't seen a report on it. But of course there is a huge shift there will be a shift. There will be a shift, but what I see at this moment it's hard to say. I should check whether I can find a report on it there. There might be reports, but I'm just not very sure of it. But of course, it makes it because we also made the report and that was on overall Europe. What is interesting to see is that there are quite a lot of differences in Europe. For example, the percentage of electric vehicles for individuals is much lower than in the Netherlands. But due to the fact that we don't have enough charging stations yet at this moment. And it depends, also you need to have, shall I say, give incentives to people at a certain moment to shift, because also often it's also a mental shift.

Sara: Oh yeah, definitely.

Annemie: It's a huge mental shift because people say that they can only drive 400 kilometres and then I'm not sure whether I will find a charging facility. Yeah, that is true. But do you know how many kilometres people, on average a week drive in Belgium? 42.

Sara: OK, well, it's a small country.

Annemie: I think you give that argument and then people are saying yes, but if I want to drive 500 kilometres? Yeah, but you maybe you drive maybe once a year 500 kilometres or maybe twice a year. So, are you going? But so, and then comes the mental shift actually also in my, on the table.

Sara: I wanted to. You mentioned that Belgium has shifted entirely away from coal. Do you know?

Annemie: Already we no longer have coal. I can give you actually a very good wait. One second, I will. I can give you a very good shot graph on it. I can put it in the chat, [*this interview was conducted over zoom*], and we need it to. I will show you. I'm scrolling here.

Sara: Yeah, no worries. Take your time.

Annemie: I'm going to. This is one of our reports very recently published. I put it in the chat. Wait one second here with the chat... [*There were technical difficulties at this point in sending the*

document] There are some data in... If you click on this link. But it might be interesting for you actually to use it. If you just open it and you go to the first figure on page 6... *[more technical difficulties]*. You see the evolution between 1990 and 2020 on the proportion of electricity and heat production by type of fuel. All you see from the renewables are going from 11 up to 38%. Coal is going down, nuclear stays and is also going a bit down, but not that much. But then you see, yeah, the production of coal now I'm going further. I'm going further. There is one graph where you see then you see Figure 3 on page 12, you see the main coal regions.

[The document being referred to in this part of the conversation is the 2022 special report: EU support to coal regions by the European Court of Auditors]

Sara: OK. OK, page 12, yes.

Annemie: And that is actually a criticism that they often gave to Germany by saying, OK, you want to phase out your nuclear power plants, but you still have coal. So honestly what is it? It and then I think there was another graph, if I'm not mistaken, where Belgium was in pure interested in Belgium, there were there are there, there is something on jobs. Of that were the direct jobs on coal mining, but OK, that's not so.

Sara: No, that's good. It's OK if I don't. It's alright if we don't have the exact details.

Annemie: And they link you to migration. No, no, no. I'm just checking. But the first here you see in Figure 9. On page 27. There you see the coal phase out status by country. And the green one, the green one in Belgium.

Sara: And Luxembourg.

Annemie: And oh, you know, yeah, I was thinking should and Portugal.

Sara: Yeah, yeah. And is that Sweden?

Annemie: And then you see the countries in light yellow that are. So, it might maybe be interesting for you to use it.

Sara: No, that is very. That is very interesting, you know. It's okay if you don't know this, but in the first graph that we just looked at quickly the in 1990, there already was like 11% renewables and biofuels, do you know how big or like when a campaign for renewable energy started? Like when they were already speaking about it in governments.

Annemie: No, but you know now, now we talk about renewable energy, because we talk about windmills and solar panels. But in countries with a lot of mountains, they all the time had that electricity.

Sara: Yeah, hydroelectric dams.

Annemie: Hydroelectric system below the mountains where the where the water was coming down. So now we have another. We don't have another perception of it. But what I want to see there is there has always been renewable energy.

Sara: Yes. Yeah. We have spoken about that in the classes.

Annemie: That's the reason why these countries can also afford not to build too many windmills because they don't need it.

Sara: My last question or two is more about your personal experience with energy pieces in your life. So, like either just how you've used energy in your life from childhood to now. But also, I was thinking maybe if there was a big difference between like in Zandbergen [*very small town where Annemie grew up*] and Puurs [*town where Annemie lived before moving to Antwerp*] which are both more rural compared to Antwerp which is urban?

Annemie: No, I wouldn't say that. No. OK. No, I need to give a mixed answer on when it goes on heating the house. Then actually the difference was more between Zandbergen and the rest. Why? Because okay solar panels didn't exist. It's like I left the region 35 years ago, so honestly, there was not. Not nothing old like the double, the double glass for the windows is actually something that came later on.

Sara: Yes, and that was the 1970s. [*when Annemie lived in Zandbergen*]

Annemie: Then immediately in the house in Puurs, we also had solar panels and so on. That was a newly built house. So, I think it's more energy efficient house you could say, but on the other hand, as it is like a stand-alone house, it probably takes more wind. How shall I say, the house here in Antwerp is definitely less energy efficiently built because the front well, I cannot insulate because it's an old and the background.

Sara: Yeah. Well, it's an old house, yeah.

Annemie: And the back one isn't done that I could do, but that isn't done. So, which means that and that means that actually. But on the other hand, it's like in the city centre, there's not a lot of wind. So, and here we also have solar panels on it. What is the difference? I would say is that in the city centre I never use my car. Never. Ever. I'm cycling or I'm walking, or I take the tram, but I will never, ever take the car because it's actually useless and that's actually if you. Take a look at Flanders. It's like there are a lot of rural areas and actually that is not how shall I say, not really. People are using quite often the car here.

Sara: They are, or they aren't.

Annemie: They are in all the rural areas because, but in Puurs I barely took the bicycle. Barely. And in Luxembourg or in Antwerp, as I'm both living in the city centre or very, very close by I. Always use the public transportation, so yes, that's the difference. But I'm also. I also think I cannot imagine that my next car is not a fully electric car. It will be.

Sara: It will be.

Annemie: So, it's also, it's also your personal behaviour is also driven by. Why was this one not a fully electric one? Because the price difference is so big and honestly, the car is a car, shall I say I also don't want to spend €100,000 at that time for a car, for an electric car to be able to drive to your work.

Sara: Yeah, yeah.

Annemie: For that car is not important enough, you know, to my person in my personal well-being. So that's so I would more say that it's driven also by research and development somewhere and then the marketability or the price on the markets, but then on top of that, we try to be to be smart in it.

Sara: Do you - let me I'm thinking how to phrase this. When you were growing up, do you remember any anything in particular to do with in the house to do with how Meter [*Annemie's*]

mother] cooked or like where the food came from or different things that required like a different term or how even if you don't think it's different, what might be the same?

Annemie: I think what is difference, in my opinion, is the fact that the people, the previous generation, was much more aware of the fact that the energy was not for free because, for example in Zandbergen there was there are no gas pipelines, which means that houses are heated via tanks where there is mazout [*English translation: fuel oil*].

Sara: I will look up at how that translates.

Annemie: So, they had to fill it every year themselves, which means not themselves, but they had to buy it every year. Which means I think that they were more aware of. We are more used to comfort. Comfort in the sense like you have a laundry machine, but you also have like the dry uh.

Sara: Dryer. Yeah, dryer.

Annemie: The dryer, the dryer, but it's actually eating energy. Everything that is heating is actually eating energy and I think that is really a difference. That is really a difference.

Sara: Yeah, that's interesting.

Annemie: So, I think they were more aware because they were also more living, they had less office jobs and they were more living outside, so they were more aware. But I think it's also applicable on food. The previous generation, they were not eating tomatoes in the middle of the winter that were coming. The tomatoes from by plane from, I don't know, Spain or Morocco or where is it like - you understand me? In our regions they just they were eating like the season's vegetable that were present. So, I think it's honestly okay, we all the globalisation.

Sara: That's a big difference.

Annemie: Globalisation had a lot of wins but had also, of course, some downsides.

Sara: Was there also less plastic use then or not?

Annemie: But I don't think there were plastic bags when you were going for shopping. OK, it's now they are trying to ban again the plastic bags.

Sara: OK, well that was very helpful. Is there anything else you think I should know about that I haven't asked?

Annemie: No, but now that you told me, I will send you some information via e-mail, maybe with some data or some graphs that I think that might be interesting for you. And then you can and then you can see whether you need something more.

Sara: Yeah, that's great. Thank you so much for doing this.

Annemie: My pleasure. My pleasure. Now you can stop the recording?

Sara: Yes, I'm going to stop the recording.