

## 2 STATE OF KNOWLEDGE ON THE ENERGIEWENDE



### 2.1 GOALS

Perceived goals of the Energiewende:  
environmental and climate protection +  
global competitiveness + political security  
of supply

- All three emerging countries saw Germany's Energiewende as being linked with **diversifying the energy mix** in favour of renewable energies. The dominant view was that Germany's switch entails the reorganisation of the energy system as a whole. Aspects above and beyond changing the energy supply in Germany, such as energy-efficient building refurbishments and the transport sector, were given less consideration by the experts in all three countries. However, promoting energy efficiency was often mentioned as a further component of the Energiewende.
- As expected, all three countries mentioned **environmental and climate policy** as a central motivating factor for the Energiewende in Germany. On the one hand, respondents referred (in relation to nuclear power) to deliberately avoiding crises that pose environmental risks, and to the as yet unresolved issue of waste disposal. On the other hand they focused on the fact that expanding renewables to replace fossil fuels will reduce climate-damaging greenhouse gas emissions.

## "It is all about climate change and reducing the carbon footprint."

Representative of the administration, South Africa

- In all three countries, respondents said that they assumed Germany had **strategic economic goals** such as technology development and making German industry more competitive in the global market for renewable energies and energy efficiency. It was striking that this view of the Energiewende as a project of industrial policy designed to promote national industries is particularly strong in China.
- Some experts considered that the decision to make the Energiewende was also driven by **political** considerations of improving **security of supply** in Germany. They thought that the main goal of the Energiewende was to reduce the dependency on certain energy sources (nuclear power, coal), on imports (oil, gas, uranium) and thus on price levels in the international raw materials and energy markets.
- Only in isolated cases was the primary motivation behind Germany's Energiewende seen as lying purely in **domestic policy**, i.e. as being about responding to anti-nuclear demands from large sections of the population and from environmental interest groups.

## Environmental and climate-policy motives



Brazil

- "The first has a connection to greenhouse effect gas, combined with gas energy. Then we have the goal of building or developing a national industry of green technologies, solar, wind, and all equipment you need to develop this matrix. Then we had the goal to get rid of nuclear energy and to maintain a certain popular pressure precisely on this issue of disposing the nuclear fleet." (1.2 Industry)\*
- "The main goal is to mitigate environmental impacts and climate changes in search of sustainability." (1.2 Parliament)
- "I think that's sustainability, a cleaner energy that causes less damage to the environment and lower risk due to the Japanese nuclear problem." (1.2 Parliament)
- "I understand that the most important point is the search for replacement of non-renewable fossil energy, and especially nuclear, by clean sources, clean energy." (1.2 NGOs)

\* The abbreviations at the end of the quotations relate to the questions and to each group surveyed. You can find an overview of these on pages 86 and 87. Respondents' statements are given in their original form and have not been edited.

- “The main objective is to promote clean energy and reduce environmental pollution. This is good. The main issues are phasing out nuclear energy, develop wind power, solar energy, and hydro power, etc.” (1.2 Industry)
- “Global warming and deterioration of the environment of the entire world make the energy transition a trend of development. The strategic goal in energy sector is to use renewable energy resources, such as wind, solar, and hydro power, to replace non-renewable energy resources such as coal and oil.” (1.2 Industry)
- “The main objectives are to reduce energy consumption, emission, and air pollution.” (1.2 Industry)
- “The main objectives are reducing climate-damaging greenhouse gas emission, reducing energy consumption as well as electricity use, and improving energy efficiency.” (1.2 Science)



China

- “Look it is about environmental foot print and going green to as to support intergenerational life going forward for the next generation.” (1.2 Industry)
- “Given the climate change, the main aim of this project, around energy, is to ensure that later we have got the support and sustainable energy or green energy initiatives.” (1.2 Parliament)
- “It is all about climate change and reducing the carbon footprint.” (1.2 Public administration)
- “Well it seems they want to go green on energy and also amongst others they want to decrease their dependence on nuclear energy, ...” (1.2 Science)
- “First of all to reduce the CO<sub>2</sub>. To go to energy sources that... they are not based on fossil fuel.” (1.2 Science)



South Africa

## Strategic economic motives



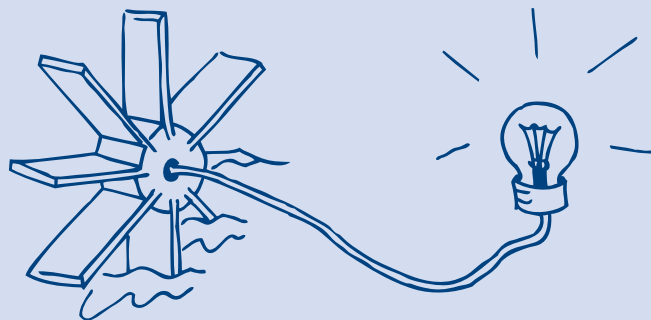
Brazil

- "...Then we have the goal of building or developing a national industry of green technologies, solar, wind, and all equipment you need to develop this matrix." (1.2 Industry)
- "The industrial development, which generates new jobs. In Germany, job creation related matters were the main reason why the government kept it going." (2.1a Science)
- "...Also I can think of a new economy. I mean... new sources of wealth and jobs. What we're talking is green economy." (1.2 Science)
- "I think Germany is interested in strategically positioning itself as a global supplier of cutting edge technology in this area." (1.2 NGOs)



China

- "The first issue which is the most important is to increase economic benefits." (1.2 Industry)



- "First, energy transition can help German build the leading role at the aspect of energy technology." (1.2 Industry)
- "Regarding the further meaning, besides environment protection, Germany is seizing the future market of energy. German has very advanced technologies on producing new energy equipments, such as solar panels, wind-powered electricity generators. Through energy transition, aside from realizing the goal of environment protection, Germany can also seize the enormous energy market in the background of energy exhaustion in future." (1.2 Industry)
- "Therefore, in the short run, Germany's objective is to protect environment. In the long run, it is to seize the energy market in future." (1.2 Industry)
- "I think German is ready to start the next industrial revolution. Germany regards its renewable energy technology at a leading position all over the world." (1.2 NGOs)

- "...And I also think they hope to lead in the technology development of renewable energy." (1.2 NGOs)



South Africa

## Political motive: security of supply

- "What we see here is more about gas, so what I see in relation to gas is that it's a country that produces little, gas from oil and the internal market is basically imported from Russian." (1.2 Public administration)
- "So it is a question of sustainability which is admirable but there is also a question of self-sufficiency that is how Germany will energetically support itself without depending too much on importation." (2.1 Public administration)
- "Well there are two basic ones (goals) which are reducing imported energy and reducing the dependence on fossil and nuclear energy." (1.2 Science)



Brazil

- "Also being short of energy resources – for example, 80% of oil is imported – Germany can guarantee its energy supply by adopting this policy." (1.2 Industry)
- "Being a country, whose energy sources are mainly gained through import, Germany could be in great danger. If countries such as the USA, those in Middle East, and Russia ceased to provide oil to it, everything would be over. So Germany should try to be self-efficient." (2.1b Science)



China

- "I think they're probably looking at some energy independence, because remember, Germany, especially for heating, they rely on gas from Russia and the situation sometimes does become volatile so I think they're looking for energy security coupled with a bit of energy independence." (1.2 Industry)



South Africa

## Domestic policy motives



Brazil

- "...Then we had the goal to get rid of nuclear energy and to maintain a certain popular pressure precisely on this issue of disposing the nuclear fleet. I think it was the government's decision, except to popular pressure that the chance of the moment after Fukushima occurred." (1.2 Industry)
- "I imagine it would have been due to the pressure of the population in relation to environmental issues following the problems caused by the tsunami in Japan." (1.2 Science)



China

- "The main objective of government leaders is to fulfill the wishes of people." (1.2 Public administration)
- "The main reason is the ever stronger protest against nuclear power among the German public after the Japan nuclear crisis." (1.2 Public administration)



South Africa

- "Political. They playing to the anti nuclear lobby." (1.2 Industry)

- Improved security of supply, the development of competitive advantages for German industry, and optimised environmental and climate protection were mentioned by all target groups as the three main factors motivating Germany's Energiewende. However, the respondents' sectors determined which of the goals they linked most closely to the Energiewende. Respondents from industry and from ministerial administration in all three countries were more likely to assume motives that aim to increase the security of the energy supply and to create technological advantages. Scientists and representatives of NGOs from all three countries, on the other hand, were more likely to believe that the Energiewende is primarily driven by environmental and climate issues.