5 OUTLOOK: FUTURE ENERGY POLICY IN GERMANY



5.1 COMPETITIVENESS

Long-term positive effects on competitiveness, short-term risks of a jump in prices

- Most experts in the three countries were convinced that the Energiewende would have more positive than negative effects on German competitiveness in the long term, despite all the uncertainties inherent in the predictions. Direct advantages were seen in the field of energy and environmental technologies. Respondents anticipated that in this area Germany would succeed in gaining and, in the long term, maintaining a leading position internationally in a permanent global growth market due to its technological lead, fully developed industrial production, and tried and tested technical solutions. In some cases, however, Germany's future competitive chances were seen as depending on how far competitors such as China would manage to close the technological gaps.
- If the Energiewende is a success, long-term competitive advantages in other economic sectors were anticipated in addition to the advantages in the fields of energy and environmental technologies. This was attributed to the expectation that costs for the generation and supply of renewable energies would fall, while prices for fossil fuels would rise. Finally, respondents considered it possible that the Energiewende would be of benefit to Germany's image as a "nation of green technology" which would be subsequent advantages in the global competition for investors and consumers.

■ The experts surveyed identified risks for German industry stemming directly from the Energiewende with the initial phase of the switch and with particular industrial sectors. They anticipated a short-term jump in costs due to sharply rising energy prices, resulting in a noticeably adverse effect on international competitiveness.

Long-term competitive advantages



Brazil

- "So surely this will make Germany a country of prominence, it will be the pioneer, it will be the one who did it right. In my opinion this will keep Germany in a status of first world country, respected, finally, a country to which everyone looks. They will move forward. That's my opinion. It will maintain its leadership position in the global energy issue." (4.1 Industry)
- "I think this issue of being a benchmark country, a model in developing technologies, they will obviously sell it to the world."

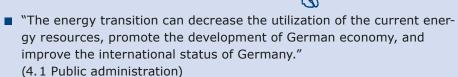
 (4.1 Parliament)
- "However, in the long run, as this energy is renewable, when these plants have paid off their investments, we will end up with clean, renewable and cheap energy, at a low cost. You have a plant running on one of these sources, renewable, clean and low-cost. So in the long run this will certainly make Germany into a very competitive country." (4.1 Public administration)
- "In the long-term they will have an advantage, precisely because they would have been the first to go through this transition which later others will have to go through, and they would have taken the first step, they will be the ones who will be in the lead, because they will have technology developed in this area and they will be able to sell these technologies and ideas to the rest of the world." (4.1 Science)

■ "I think, Germany will be a leader in the energy sector worldwide. It will be self-sufficient with the energy supply, independent, and protect the domestic environment." (4.1 Industry)



China





- "Germany lacks of energy resources, so the energy transition will definitely bring many benefits and reduce its dependence upon other nations' energy sources. This will also have an impact on Germany's competitiveness. The energy transition is a development trend. If German can be the first in implementing energy transition successfully, it will take a leading position in energy technology and its national competitiveness will be greatly enhanced as well." (4.1 Science)
- "The energy transition is an unavoidable trend. Germany can provide better experience and technology to the whole world with its energy transition; the development of related industries will be promoted; and the global economic development will be accelerated." (4.1 NGOs)
- "Well I think they will certainly become self sufficient, their efficiency will improve, and in the long run they will be the world leaders in the game." (4.1 Industry)
- "I think in the long run, as I said the renewable energy will then be cheaper and I think also other countries doing business with Germany, they will actually prefer to do business with a country that's using renewable energy. So that will actually put them on the forefront." (4.1 Public administration)
- "I think it will have an impact in as much as they will be increasing by current expectation pressure worldwide in terms of producing goods and services in a sustainably environmentally friendly manner." (4.1 Science)
- "I think they can become technology leaders, that is my perception is that in this opportunity they take the lead and they can be technology leaders. And they would probably be able to sell that knowledge to other countries." (4.1 NGOs)



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Risks



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- "Moreover, the negative, we have a very high cost of energy and industry in Germany goes to China where there is no environmental benefit. Then we have a problem, because it impacts on income generation in Germany, increasing income generation in China. The environmental impact remains the same or even increases." (4.1 Industry)
- "If the country invests in an expensive energy source it's becomes a matter of competitiveness because your source is primary and expensive to be internally used and those countries which are using a cheaper energy source end up being more expensive. We can see it happening in China." (4.1 Public administration)
- "I think that they'll suffer a little, because energy will cost more initially, so I think they'll have some problems with the market, with their products, because they'll be expensive. I think the main consequence is that they will lose out a little in the global market, because production will become more expensive." (4.1 Science)



China

- "In the short run, the energy transition will bring a negative impact on Germany, because a relatively long time will be needed when adopting new energies." (4.1 Industry)
- "As for the risk that Germany is going to take, I think it lies in the investment at the initial stage of energy transition, such as the infrastructure construction. In the short run, it adds up the cost, but it is beneficial in the long term." (4.1 Public administration)
- "It might have a negative impact on Germany's competitiveness. When they abandon nuclear energy, they have to utilize renewable energies. However, cost for renewable energies is higher. In short term, the electricity price might be increased. This has negative impact on Germany's energy industry and other industries."

 (4.1 Science)
- "In the long run, the energy transition can improve Germany's international influence and economic competitiveness. However, at the initial stage of transition, it might cause economic burden on Germany." (4.1 NGOs)



- "As I said initially the prices in the short term are going to be very excessive. So you are more than likely to experience a lower competitiveness in Germany in the short term." (4.1 Industry)
- "Initially it might make them a bit less competitive because there is a high capital injection but in the long run it might increase their competitiveness in the sense that their energy supply might be more guaranteed in a way and it is everything about the green economy." (4.1 Public administration)

- "It's going to increase their cost in the beginning and it might impact in the short run of their products being more expensive than products from China or wherever India or Korea." (4.1 Science)
- "In the long run it should be energy independent and it should be also fully compliant with environmental standards, but I think that this will come at a very great cost." (4.1 NGOs)

5.2 LONG-TERM CONSIDERATIONS

Planning energy policy will be worthwhile in the long term

- The majority of the respondents in all three countries approved of industrialised countries considering the framework of their future energy policy over the long term. Most of the experts in the three countries regarded Germany's programme to Energiewende, which is designed to take place over the course of forty years, as a visionary and responsible programme strategy. They also assumed that the Energiewende would ultimately be worthwhile for Germany as a location for industry. Reflecting the positive assessment of the long-term effects on German competitiveness, the majority view was that the Energiewende would put Germany in a globally leading position in the field of energy and environmental technologies; furthermore, it would provide German industry with a secure and, in the final analysis, cost-effective energy supply, thus giving Germany corresponding competitive advantages. Many experts in all three countries therefore concluded that the drafting of long-term energy policy targets should be taken as an example for their own countries as well.
 - "I think Germany has this capability in terms of reconstructing the industry, some energy model. I think Germany is going to remain as an industrial center in a long-term." (4.2 Industry)
 - "Well, I believe that there may be a cost reduction in the long term due to the cost of energy with this new source of renewable energy. I believe it might be a cheaper production cost, although an it's investment to be paid, but in the medium and long term there should be a reduction in energy cost that ends up having an influence on German industry." (4.2 Parliament)
 - "I see positive impressions. Because Germany gradually is still a country with a very strong industry, it exports a lot. And I think this will greatly benefit the industry because it is a sector that consumes a lot of energy. And it will benefit the technology sector, which is a



Brazil