Prof. Dr. Claudia Kemfert, Head of the Department of Energy, Transportation, Environment at DIW Berlin

SEVEN QUESTIONS TO CLAUDIA KEMFERT

»Global Climate Targets Achievable without Nuclear Power«

1. Prof. Kemfert, do we still need nuclear power to achieve global climate targets? No, we no longer need nuclear power to achieve global climate targets because renewables are becoming increasingly cheaper and are being used more throughout the world. This is not only the case in Germany and Europe but also on a global scale. There is already more investment worldwide in renewables than in fossil fuels. Nuclear power is a very costly technology and therefore unattractive from an economic perspective. As a result, we can certainly achieve climate targets with other technologies.

2. Can renewable energy technologies compensate for the phasing out of nuclear energy? Renewables certainly can fully compensate for the phasing out of nuclear energy, which is used to generate power. It is clear that renewables absolutely have the potential to replace not only nuclear but also other technologies.

3. Renewables are volatile. Is this not an argument against using renewables as a complete sourcing solution? In future, renewables will come in a variety of forms. You could use solar energy, wind energy, hydropower, and biomass to replace coal or nuclear power. In addition, new storage technologies are becoming increasingly economically viable, allowing us to compensate for these volatilities.

4. Does this mean coal-fired power plants are no longer needed? Yes, this is exactly what it means, at least in the long term. If we're going to achieve our global climate targets, we must stop using lignite and coal in particular. The scenarios show this very clearly. If we also use more storage technologies we will be living in a world where we can generate all our power and meet our total energy supply requirements from renewables.

5. Is there an economic risk from phasing out nuclear power? Nuclear energy has always been a very costly technology. It has been very heavily subsidized over the decades. The investment costs of new construction projects are very high. Added to which, the costs of decommissioning nuclear power plants have risen sharply due to increased safety requirements. We also still don't know how or where in the world to permanently store the nuclear waste. These are unexpected costs that still need to be factored in. Nuclear power is quite clearly the most expensive technology available in the world today.

6. When will we be able to say goodbye to nuclear power for good? This will definitely be possible in the near future. While we still have plenty of nuclear reactors on grid, in Japan, Russia, and the US, for example, many of them are very old. The share of nuclear power is still declining throughout the world. So a scenario in which we can soon say goodbye to nuclear power is not at all far-fetched.

7. What do you hope to achieve at the upcoming climate summit in Paris? The climate summit in Paris should make it clear that if we are to take the climate issue seriously and reduce emissions worldwide, then we must reduce them by around 80 percent by 2050 and to zero by the end of the century. The economy needs to fully decarbonize and desist from generating CO_2 emissions. This means the power sector will have to reduce coal and increasingly use renewables. There also needs to be more energy savings. It is important that the climate summit in Paris sends the signals, determines the framework, and defines the key expansion targets we need to decarbonize the energy industry.

Interview by Erich Wittenberg

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