

»» Is climate protection really bad for the US economy?



No. 132, 2 June 2017

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The new US administration claims that climate protection puts too heavy a burden on the US economy. It also makes environmental and climate regulations adopted by the previous administration responsible for job cuts in the US coal industry. Do these arguments hold water?

Climate protection and economic growth are not opposites

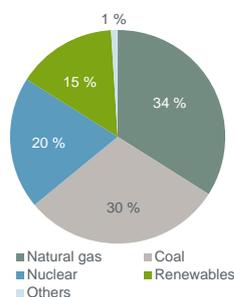
Between 2008 and 2015, CO₂ emissions in the US energy sector fell by 9.5% while the US economy grew by more than 10%.¹ The USA has thus succeeded in decoupling economic growth from greenhouse gas emissions – proof that climate protection does not weaken US economic strength.

Shale gas revolution is responsible for decline of coal industry

The share of coal in electricity generation in the USA dropped from 45% in 2010 to 30% in 2016. This strong decline was due not to US climate protection policy of past years but primarily by the market response to the sharp drop in natural gas prices.² Since the USA started large-scale operations to force natural gas out of shale (fracking), gas has become an economically attractive alternative to coal, overtaking it in 2016 for the first time as the primary source of energy for electricity generation (Figure 1). Many experts expect the fracking boom that began in 2005 to continue.³ It is therefore highly unlikely that rolling back

US climate protection legislation will see large numbers of jobs return to the coal industry.

Figure 1: Electricity mix in the USA, 2016



Source: U.S. Energy Information Administration (2017)

Already there are more jobs in climate protection technologies than in the fossil fuel industry

In 2016, some 800,000 persons were employed in low-carbon energy generation technologies in the USA, of this 374,000 are attributable to the solar and 102,000 to the wind power industry. Around 2.2 million persons were working in energy efficiency technologies. For comparison: in 2016 roughly 1.1 million Americans were employed in the fossil fuel industry (coal, natural gas, oil), with only 160,000 in the coal industry.⁴ Given these figures, a one-sided energy policy that favours fossil fuels can be expected to meet with resistance from industries and US states employing high numbers of workers in the green technology sector.

Renewable energies are becoming increasingly cost-effective

The new US administration's 'America First Energy Plan' aims to make the USA independent from energy imports in the future (net import quota in 2016: 12%) and reduce energy costs. It explicitly intends to achieve this through the use of domestic oil, natural gas and coal reserves. The plan does not mention clean domestic 'renewable energy' resources. Yet in 2016 renewable energy already accounted for 11% of US primary energy consumption and 15% of electricity generation.⁵ The potential for expanding renewable energy in the USA is enormous. Studies demonstrate that domestic renewable energy systems could generate many times more electricity than the USA currently consumes.⁶ In the meantime, sharply declining generation costs have made renewable energy sources more competitive. In some US regions, the cost of generating electricity from wind and solar energy (unsubsidised) is already lower than for coal-fired power plants.⁷

Conclusion

Renewable energy sources are becoming an increasingly attractive option for cost-effective energy supply. Many energy-efficiency measures are profitable anyway. The planned policy change harms the global competitiveness of the US and threatens jobs in industries of the future. ■

¹ Cf. Obama, B. (2017), The irreversible momentum of clean energy, in: Science 10.1126/science. aam6284.

² Cf. Statista (2017), Der Energiemix der USA im Wandel der Zeit, <https://de.statista.com>.

³ Cf. GTAI (2017), Branche kompakt: US-Markt für Solaranlagen macht kräftigen Wachstumssprung.

⁴ U.S. Department of Energy (2017), U.S. Energy and Employment Report.

⁵ Cf. GTAI (2017), loc. cit.

⁶ Cf. Environment America Research & Policy Center, Frontier Group (2016), We have the power: 100% renewable energy for a clean, thriving America.

⁷ Cf. Obama, B. (2017), loc. cit.