

# § 4 Energy and environmental law policy

## I. The transition from fossil fuels to renewable energies as a key factor for climate protection

- because the use of fossil fuels is the main reason for the greenhouse gas emissions that cause climate change
  - the transition to renewable energies is the main topic in current European and German energy and environmental law [Energieumweltrecht] and the corresponding legal policy
- renewable energies are energies obtained from sources that renew themselves in the short term or whose use does not deplete the source
  - clarification of terminology: despite the misleading term, not the energies but the energy sources are renewable
  - examples: solar radiation energy, wind energy, hydropower, geothermal energy, biomass energy
  - note that this energy is available in abundance in Indonesia!

## II. Germany as a pioneer for this transition in the past

### 1) Germany's Law on the Sale of Electricity to the Grid of 1990

[Stromeinspeisungsgesetz]

- regulated for the first time the obligation of electricity suppliers to purchase and compensate for electrical energy generated in their supply area from renewable sources
- replaced in 2000 by the Renewable Energies Act [Erneuerbare-Energien-Gesetz], which was later frequently updated with changing concepts for the compensation until the current version of 2023 (see infra, IV.)

### 2) Germany's extensive ban on fracking

- Germany has the potential to extract oil and gas by the controversial method of fracking (breaking up rock deep underground by injecting a mixture of water and chemicals under high pressure)
- but to protect groundwater and soil, fracking is largely banned by law since 2017:
  - conventional fracking (in conventional reservoirs, e.g. sandstone) requires an extraction license under mining law plus a water usage permit under water resources law, for which very high environmental requirements must be met (cf. sect. 8(1), 9(2) no. 3 Water Resources Act [Wasserhaushaltsgesetz])
  - *unconventional fracking* (in unconventional reservoirs, e.g. shale or clay) is generally banned
- despite the promotion of fracking by U.S. President Donald Trump, Germany will not lift its ban in the future, since the idea of fracking is highly unpopular

### 3) Germany's coal phase out

- coal contributed largely to Germany's economic rise in the 19<sup>th</sup> and 20<sup>th</sup> centuries, but Germany decided to end its use as energy source because this is crucial to reduce a country's contribution to global warming
- step 1 (2007): *Law on Financing the End of Subsidized Hard Coal Mining by 2018*
  - caused the immediate end of hard coal mining after the expiration of the last subsidies in 2018
  - however, hard coal is still imported for burning in coal-based power plants
- step 2 (2020): *Coal-based Power Generation Termination Act* [Kohleverstromungsbeendigungsgesetz]
  - power generation from hard coal and lignite is continuously reduced and will end in 2038
  - this will also end the controversial lignite mining in open-cast mines
  - however, business lobbies keep questioning this decision and it may be revised

### III. The EU Renewable Energy Directive (RED) (since 2009; now: Directive 2018/2001)

- a first directive of 2009 has been replaced by a new one of 2018, which has been revised in 2023

#### 1) Firm European commitment to the timely promotion of the use of renewable energy

- EU aims to promote energy production from renewable sources and strengthen its competitiveness on the global renewable energy markets
- the *binding target of a share of at least 42.5 % in 2030* in the EU's overall gross final energy consumption (art. 3(1))

#### 2) Restrictions on biomass use to minimise negative effects on the biomass raw material market, biodiversity, environment and climate (art. 3(3))

- taking into account that even biomass use, although emission-neutral, has a negative impact on environment and climate
- biomass use and its promotion must comply with a number of sustainability criteria, in particular the *principle of cascading use of biomass* (art. 3(3 - 3d)) (efficient resource utilisation by using residues and recycled materials)

#### 3) The member states' obligation to establish a framework for adequate promotion of renewable energy (art. 3(4a))

- to foster renewable energy purchase, increase its electricity share and tackle barriers, e.g. in bureaucratic procedures and infrastructure development

#### 4) The member states' obligation to require fuel manufacturers to increase the share of renewable fuels to 29 % by 2030 (art. 25(1))

- for a higher share of biofuels, green hydrogen fuel, electrofuel

### IV. The German Renewable Energies Act 2023 [Erneuerbare-Energien-Gesetz 2023]

- a law *first adopted in 2000* and then frequently updated
- implements the RED and other European Union law, but is in some aspects more ambitious

#### 1) The aim of transformation to a sustainable, greenhouse gas-neutral power supply entirely based on renewable energies (sect. 1(1))

- the *target of a renewable energy share in electricity consumption of 80% by 2030* (sect. 2(2))  
- actual share in February 2025: 42 %
- ambitious, detailed expansion plans for wind turbines and solar plants (sect. 4)  
- less ambitious plans for biomass plants
- individual *consumers know their personal shares*, since the electricity bill lists the proportion of electricity from renewable sources in their consumed energy mix (see sect. 42 of the Electricity and Gas Supply Act)

#### 2) The *renewable energy privilege* (sect. 2)

- construction and operation of renewable energy installations are by law in the *overriding public interest*, serve public health & security and must be prioritised in balancing processes under the law
- this can speed up planning and authorisation procedures

#### 3) Promotion of hydrogen-based electricity (sect. 28f, 28g, 39o - 39q)

- of innovative concepts with hydrogen-based electricity storage
- of electricity generation from *green hydrogen*
- so far, little use of hydrogen-based power in Germany

#### 4) **The integration of private photovoltaic installations into the electricity grid and the remuneration claims of their operators for fed-in electricity** (sect. 19 - 21)

- a revolutionary approach that allows every citizen to contribute himself to the transformation of the energy supply system
- has made the use of renewable energies popular in Germany
- *right to connect one's photovoltaic installation* to the public electricity grid (sect. 8)
  - has fostered the development of a broad spectrum of photovoltaic systems
    - from rooftop solar systems on private homes to industrial-scale solar power parks
    - trendy in 2024: balcony power plants on the balconies of apartments
- *claim for remuneration* for electricity fed into the grid (sect. 19 et seq.)
  - against the grid operator (not the electricity provider)
  - different alternatives and modalities (see sect. 19 - 21)
  - claim granted for 20 years (sect. 25)

## V. Perspectives

- the problem of the rise of post-factual right-wing extremist populists who turn against renewable energies as part of their cultural war against the modern society
  - most prominent example: Donald Trump and his European supporters
- the risk that the fossil fuels-friendly policies of the new Federal Minister for Economic Affairs and Energy will compromise Germany's transition towards clean energy supply
  - the controversial plans to build numerous new natural gas power stations
  - the controversial plans to end subsidies and privileges for renewable energies
- however, a fundamental policy reversal in Germany is unlikely, due to...
  - the strict requirements under European law
  - the strong support of photovoltaics by the middle class (esp. house owners) who has benefited from it thanks to the right to feed electricity into the grid
- the need to overcome the selfish resistance of parts of the population who demand effective climate action by the state but are not willing to accept wind turbines or overland power lines in their own neighbourhood