

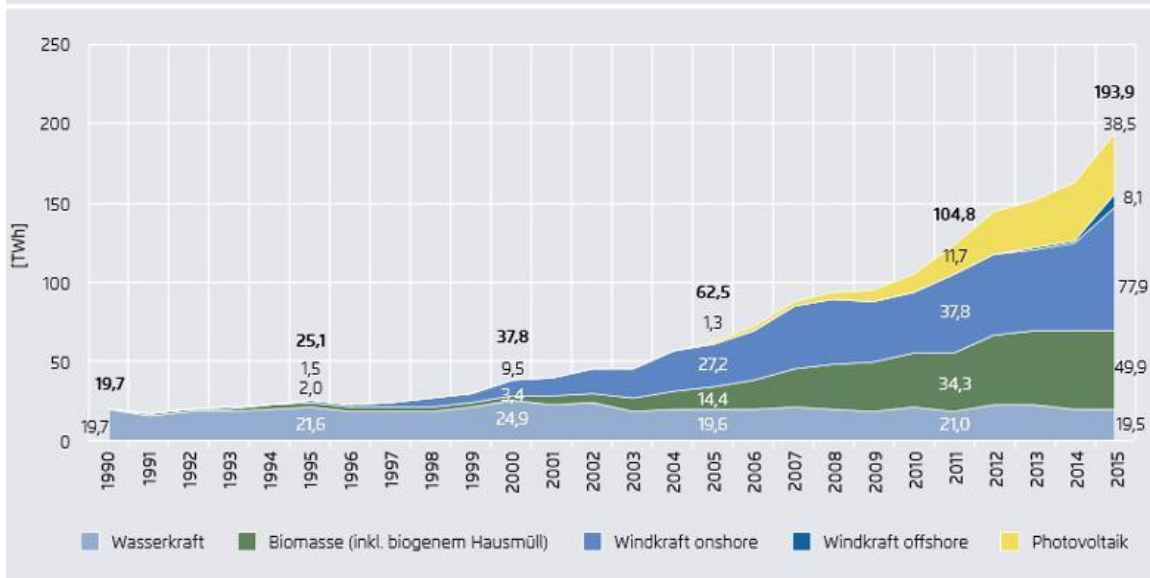
Andre Wakefield, “The Energiewende.”

Umdenken, the exhibit, focuses on the four elements: earth, air, fire, and water. This immediately calls up the parallel mix of renewable energy resources: biomass, wind, solar and hydropower. These four sources have played the protagonists in Germany’s great ongoing social experiment: die *Energiewende*.

As Friederike von Schwerin-High has already pointed out, *Wende* has a number of resonances, most obviously calling up the moment in 1989-1990 when the Berlin Wall came down and Germany unified. That was a political *Wende*. This one, the *Energiewende*, might end up being equally important.

The numbers are staggering. Germany, under Angela Merkel’s leadership, has pledged to produce 40-45% of its energy with renewables by 2025. This is a hugely ambitious goal. So ambitious, in fact, that people made fun of it when it was first made. But nobody is laughing now. During the period 2000-2014 (see figure below), renewable energy sources grew from about 6.5% of the total energy mix to about 27.5% of the total. This is an astounding transformation in an energy economy traditionally dominated by coal—both lignite and anthracite. Not only that, but after the disaster at Fukushima, Germany pledged to eliminate Nuclear power from the mix as well.

Die Stromproduktion aus Erneuerbaren Energien hat sich seit 1990 fast verzehnfacht:
Entwicklung Erneuerbarer Energien 1990-2015



AG Energiebilanzen 2015a

Flashback to 2010. The naysayers and doomsday preachers said it could not be done. It would destroy the economy; it would ruin Germany’s competitiveness; it was a recipe for disaster.

Today, looking back on the very recent experiment in radical energy transformation, neoliberals are singing a different tune. Economic growth is up 40% from 1990 levels. CO2 emissions have dropped sharply over that same period. And the Energiewende, so far, shows no signs of suffocating the German economy. Merkel has gone from goat to hero of the energy world in this same brief span; what was once classed as stupidity has now become forward looking. Consider what William Pentland had to say in *Forbes*:

The Energiewende has galvanized a gale of economic destruction. What American critics of the Energiewende have yet to appreciate is that the Energiewende's destruction is of the decidedly creative ilk. A growing body of evidence suggests that the Energiewende has catalyzed precisely the kind of "creative destruction" that Joseph Schumpeter identified as a vital engine of economic growth.¹

Germany, Pentland argues, is actually revolutionizing energy production and distribution by making baseload power obsolete. The new energy regime in Germany will no longer rely on the grid in the same way. He predicts that the consequences will be far reaching (and destructive), analogous to what Toyota's automobile manufacturing revolution did to Detroit in the 1980s.

¹ William Pentland, "What is so Revolutionary about Germany's Energiewende?", *Forbes*, December 7, 2015.