

Abstract

With the global consensus on the urgent need for climate change mitigation and increasing investment into low-carbon technologies, social-science based research of energy transitions – dramatic and permanent changes in the way energy is produced and consumed in socio-technical systems – is on the rise. The goal of this paper is to contribute to this research with an analysis of how energy transitions may be affected by cross-border factors. For this purpose, this text looks at the case of Germany – Czech Republic, evaluating how the former country's energy transition (known as the *Energiewende*) affects the latter's system of electricity provision, which has its own transitional dynamics.

The research question is stated as follows: “How does Germany's *Energiewende* affect the transition of the system of electricity provision in the Czech Republic?” To answer this question, I employ a Multi-Level Perspective approach, which perceives any socio-technical system (the system of electricity provision in our case) as a dynamic network of infrastructure, institutions, and actors. The interaction of these constitutive elements ensures the functioning, reproduction, and gradual evolution of the system. Nevertheless, when the system is exposed to external pressure, and innovative technologies emerge on the micro level offering an answer to this pressure, MLP expects a system to undergo a transitional change.

This theoretical approach then is applied to the situation in Germany and the Czech Republic. Two major cross-border factors are discussed. First, Germany affects the Czech system of electricity provision via changes in the wholesale price of electricity. With the *Energiewende* adding a massive amount of subsidized renewable capacities to its system, Germany has been driving the average price of electricity down. This trend then spills over to the Czech Republic via the regional electricity market, affecting the behavior of energy stakeholders in the country. Second, the imbalance between rapid renewable construction and substantially less rapid grid investments and capacity allocation mechanisms has caused major unscheduled flows of electricity, compromising the stability of the Czech grid and its ability to carry out its commercial functions.

These two factors and the way they affect the transitional dynamics of the Czech system of electricity provision are then thoroughly analyzed. I show how the system has accepted some of the pressure and has adjusted to some of the characteristics of the *Energiewende*. However, since the transition of the Czech electricity sector is still immature, only general trends can be sketched, as accessible data about the transition progress does not yet point unequivocally in a single direction.