Energy Transitions as Lived Experience: A Transnational Study of Deindustrializing Coal Regions in Europe Since 1945

Petra Dolata

Coal played a significant role after 1945 facilitating the economic reconstruction of Western Europe and fueling the 'economic miracle' in Germany. It also became the energy carrier around which French-German rapprochement and European integration would be initially established. At the same time, the coal economies of Western Europe were embedded in a much larger global development, namely the interrelated emergence of high-energy societies and the single-fuel transition from coal to oil, which became foundational for today's petrocultures and together with their detrimental pressures on eco and earth systems led J.R. McNeil and Peter Engelke to label the time period since 1945 the Great Acceleration. Initially misinterpreted as cyclical fluctuations, coal sales crises in West Germany and Belgium in the late 1950s were the harbinger of more widesweeping structural changes which first led to the deindustrialization of the Ruhr region in West Germany, the Borinage in Belgium and the Nord-Pas-de-Calais region in France, followed by subsequent waves of coal mine closures in the UK, Poland and eastern parts of Germany. One of the main reasons for the downfall of King Coal was the ascendancy of petroleum. While both energy carriers competed fiercely in Europe in the second half of the twentieth century, this was not a straight-forward substitution process, and the transition process continues until today creating social and economic pressures in deindustrializing localities.

Applying a multilevel perspective and focusing on Germany, Benelux and the UK, this project will examine responses to the single-fuel transition from coal to oil after 1945 at the personal, local, regional, national and transnational levels to understand how this historical energy transition impacted (de/post)-industrial identities in an increasingly integrated Europe. More importantly, this project will examine energy transition as lived experience enabling us to understand human agency within an energy transition that occurred during people's lifetimes. Redefining *Strukturwandel* and deindustrialization as an energy transition during the Great Acceleration, allows us to shed more light on the stories and histories of women, non-unionized and racialized workers all of whom lived through the energy transition even though they may not have been considered as prominent players in either the miner's labour movement or in the politics of deindustrialization.

Broadening the perspective beyond deindustrialization, this project is based on the assumption that energy transitions are fundamentally about societal transformations. They are historically contingent, and do not follow any natural nor purely technological trajectories. New technologies and new energy sources themselves rarely determine the course of societies. Recent focus on the precarity of coal miners and energy labourers more broadly has heightened aware-ness on the agency of people to spur, alter or divert energy transitions. By focusing on individuals and communities experiencing energy transitions within their lives as lived experience, humans become historical actors (and not as a planetary species or an aggregate component of consumption

or organized labor), who experience, deal with and make sense of energy systems and energy transitions. Understanding the role workers, whether paid or unpaid, including those who are racialized, their unions, and women, played during times of energy transitions and engaging with their own stories, will help us understand energy systems as social systems and reveal the modes by which changes in energy use and energy productions have created socio-economic spaces which instigate political action but also establish energy sacrifice zones which potentially initiate environmental activism. Highlighting the messiness and protractedness as well as the political and disciplining nature of energy transitions will be an important reminder for anyone involved in present energy discussions to be cautious about absolute claims about the nature of our energy future and equitable ways to address current energy challenges.