

THE ROLE OF NON-STATE ACTORS IN THE EUROPEAN ENERGY TRANSITION: THE CASES OF PORTUGAL AND GERMANY.

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Overview

Three years ago, the COP 21 (the Paris Climate Conference) did finish up with an agreement between states on the need to limit global warming to less than 2°C (and, if possible, less than 1,5°C). Also, it was the setting for an exceptional mobilization of non-state and subnational actors, including 70 coalitions of businesses, cities, regions, NGOs and voluntary states which made commitments to do more.

The number of participants in the climate challenge is rising rapidly: more than 7,000 towns in 133 countries and 245 regions of 42 countries, as well as over 6,000 companies worth 36,000 billion dollars in turnover, have participated in actions to reduce emissions (UNEP, 2018). That is happening simultaneously in different regions of the world.

The literature about non-state actors has outlined that their key skills and resources derive from intellectual, membership, political, and financial bases. Thus, Nasiritousi et al. (2016) have built a typology of power sources used by non-state actors to gain authority in global climate governance: symbolic (legitimacy/ability to invoke moral claims), cognitive (knowledge, expertise), social (access to networks), leverage (access to key agents and decision-making processes), and material (access to resources) powers.

But what is the real impact that these non-state and subnational actors are having in the energy transition at national level? Are their actions complementary or sometimes contradictory with the national policy of each country? We analyse these questions in the European context taking two countries as case studies: Germany and Portugal.

Methods

We have focused our analysis on the electricity sector that is in the heart of the current decarbonization efforts in most of the European countries. The development of renewable energies is generally based around production facilities operating on a smaller scale than conventional power stations, and the reduction of electricity consumption is achieved through local projects. The transition of the electricity sector, therefore, has the effect of handing the initiative to local and regional operators, especially, local governments, associations and cooperatives.

We investigate two contrasted case studies than could help to understand the emergence and the role of non-state actors in different political and institutional contexts. Firstly, the transitions of local energy systems and the new models of local energy governance are clear in Germany where they take form of new action arenas. Several local communities, involving diverse public and private actors, take initiatives to transform local energy systems (Young et Brans, 2017). Secondly, Portugal, a relatively small and politically centralised country, has become one of the European champions of renewable energies for electricity production, thanks to the growth of onshore wind, hydroelectricity, biomass and - more recently - solar energy. The spread of renewable energies also encourages new operators to emerge, both domestic and foreign, in a sector that is traditionally oligopolistic.

Preliminary Results

Building on a tradition of local energy management, the development of renewable energies in Germany has led to the emergence of numerous cooperatives and a re-appropriation of electricity production by consumers. Today about half of the renewable capacity is privately owned or farmed, compared to only 5.4% for large energy companies. This ownership of the energy transition by local communities promotes project buy-in and redistributes part of the costs of the German energy policy. Local initiatives are not limited to seizing the development opportunities offered by the energy policy decided at the federal level - it often goes much further: many communities are committed to achieving 100% renewable energy or carbon neutrality.

Portugal has been experiencing steady growth in the use of renewable energies for electricity generation in recent years. This transition is guided by proactive policies - European and, above all, national - but also by the actions of various operators, be it a long-established energy company or new innovative enterprises. Also, actions by

some cities such as Évora demonstrate the importance of the role played by local authorities. Despite this progress, the country still has a long way to go before it achieves a completely decarbonized electricity mix

Conclusions

The studies by country that we undertook seem to confirm the importance of a synergy between the different levels (national or supranational legislation such as in Europe, sub-national actors, private firms, and citizen actions). The electricity sector is experiencing a phase of rapid restructuring, characterized by the loss of influence of central governments and major electricity companies, with power being ceded to local governments and new economic operators. This transformation is contributing to the emergence of economic models with lower levels of emissions and could perhaps prefigure the transition towards a fully-decarbonized production of electricity and heat. However, the emergence and the real role of sub-national and non-state actors appear strongly related to the political and institutional characteristics of each country.

References

Agora Energiewende (2017), *Energiewende2030: The Big Picture*.

Beermann, J., et al. (2017), Decentralised laboratories in the German energy transition. Why local renewable energy initiatives must reinvent themselves. *Journal of Cleaner Production*.

Byskov Lindberg, M., et al. (2018), Policies, actors and sustainability transition pathways: A study of the EU's energy policy mix. *Research Policy*.

Climate Chance Association (2018), *Book 1 of the annual report of the global observatory on non-state climate action*.

Conti, C., et al. (2018). Transition towards a green economy in Europe: Innovation and knowledge integration in the renewable energy sector. *Research Policy* 47.

IEA (2018), *World Energy Investment*.

IRENA (2018), *Renewable Energy Policies in a Time of Transition*.

Nasiritousi, N., et al. (2016), The roles of non-state actors in climate change governance: understanding agency through governance profiles. *International Environ Agreements*, 16.

Nasiritousi, N. (2016), *Shapers, Brokers and Doers : The Dynamic Roles of Non-State Actors in Global Climate Change Governance*, (PhD dissertation). Linköping. <https://doi.org/10.3384/diss.diva-123295>

Nunes L.J.R. & al. (2017) Biomass in the generation of electricity in Portugal: A Review, *Renewable and Sustainable Energy Reviews* 71.

Prata R. & al. (2018) Distributional costs of wind energy production in Portugal under the liberalized Iberian market regime, *Energy Policy* 113.

Peña I. & al. (2017) Lessons from wind policy in Portugal, *Energy Policy* 103.

UNEP (2018), *Emissions Gap 2018*.

Young, J., Brans, M., (2017), Analysis of factors affecting a shift in a local energy system towards 100% renewable energy community. *Journal of Cleaner Production* 169.