

ALBATROSS, COLIBRI OR EAGLE? HOW NATIONAL DIFFERENCES IN POLICY IMPLEMENTATION SHAPE THE POTENTIAL OF RENEWABLE ENERGY COMMUNITIES

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Overview

Renewable energy communities (RECs) enable to share renewable energy directly among a group of consumers, producers, prosumers, and storage systems. Despite the framework set by the Renewable Energy Directive REDII (Directive (EU) 2018/2001, 2018) and the Electricity Market Directive EMD (Directive (EU) 2019/944, 2024), European states differ considerably in how they adopt and implement RECs. We need to understand those differences and their origins so that scholars and policymakers can draw lessons from cross-country comparisons. Researchers have identified diverse REC concepts (Dudka et al., 2023) and the varying development across Europe (Inês et al., 2020; Neij et al., 2025). Yet, the mechanisms driving country-specific implementation choices remain insufficiently understood.

This paper asks: Why do national legislation and political perspectives on RECs differ between countries operating under similar regulatory frameworks? Using a qualitative inductive approach, we analyse documents of the legislative process involving stakeholders and interest groups in Austria, Germany, and Switzerland. These countries share a comparable economic and regulatory context, with Switzerland also being subjected and influenced by EU-level policy and markets. Still, the countries diverge in their progress of REC implementation. At one end of the spectrum, we find Austrian legislators advocating RECs, stimulating participatory projects, and thus advancing social acceptance. At the other end, German legislation emphasises potential pain points due to RECs' complexity and potential for litigation. We conclude between-country differences to be rooted in a country-specific mix of justification applied by stakeholders and the interested public. Our work thus advances the understanding of how diverse REC policies and perceptions are shaped and how they influence the potential of RECs.

Methods

The data analysed consists of the three national REC legislations, accompanying explanatory notes and briefs, and consultation statements submitted by stakeholders and interested parties: 129 in Austria, 60 in Germany, and 305 in Switzerland. We used qualitative justification analysis (Luhtakallio & Ylä-Anttila, 2023), adapting it to be more inductive: Starting with open coding focussing on claims and their justifications, we iteratively developed labels to capture the mechanisms of justifications across countries.

Austria, Germany, and Switzerland were selected for three reasons. First, all three countries share a comparable context with existing national regulations for RECs, similar socio-economic characteristics, and a history of community energy projects (e.g., energy cooperatives). Second, they differ substantially in their progress of REC implementation. Austria has introduced RECs in 2021, building on earlier smaller energy-sharing concepts; by 2025, more than 4'600 communities were in operation (E-Control, 2025). In Germany, RECs as a first formalised energy-sharing concept will be possible starting June 2026. In Switzerland, RECs can be founded since January 2026, following earlier energy-sharing concepts introduced in 2025. This contrast allows for clearer identification of both commonalities and conflicting argumentations. Third, although Switzerland is not an EU Member State, it is subjected to and influenced by EU policy and market developments.

Results

In Austria, legislators and stakeholders perceive RECs to be a positive development fostering participation in a renewable energy transition. Also, RECs are expected to increase the social acceptance and deliver various benefits to the communities and energy market involved. We summarise this perception in the analogy of a soaring "eagle". In contrast, RECs are perceived as clumsy "albatrosses" in Germany. Their potential contribution to the electricity market is considered small. Instead, RECs are seen to increase complexity and add potential for civil litigation between market and private actors. In between the two extremes, RECs in Switzerland are perceived as agile "colibris". While offering an additional way in the energy transition, RECs' contribution and success is seen as unclear.

Downsides like the unequal burden of costs for the grid infrastructure are yet to be weighed against upsides like broad participation options including companies; the profitability of RECs remains contested.

Differences arise not only in the perception of RECs, but also in the justification dimensions used. In Austria, civic (e.g., participation), sustainability- (energy transition) and society-focused (social acceptance) justifications dominate and are largely positively connotated. In Germany, industrial (technical complexity), market (economic burden), and civic dimensions (litigation) justifications prevail and are predominantly negative. In Switzerland, we find a mix of civic (unequal cost burden, manifold participation options) and sustainability-focused (energy transition) justifications. Claims justified using the civic dimension go in both positive and negative direction. These findings show how legislators, stakeholders, and the public use a selection of a few justifications during a consultation process. The resulting legislation and evaluations in explanatory notes draw on a subset of these justifications, reflecting negotiated compromises.

Conclusions

National REC regulations and their evaluation differ in the sets of justification dimensions used to legitimise specific interpretations of the EU regulatory framework. These justification sets emerge through a dynamic process where compromises are reached between conflicting claims made by stakeholders and the interested public. Consequently, national REC legislation acquires distinct characteristics: supportive and facilitative in Austria, transforming REC into flying eagles; sceptical and restrictive in Germany, potentially keeping RECs clumsy albatrosses; ambivalent yet flexible in Switzerland, picturing RECs as “colibris” with potential to either progress swiftly or remain rather stationary.

Our insights contribute to current research on energy communities and differentiated implementation of energy-related directives. We identify key commonalities and contrasts between REC legislation in Austria, Germany, and Switzerland. Moreover, we uncover how justification mechanisms in public consultation processes influence policy outcomes. The resulting combinations of justifications—results of compromises—thus shape how renewable energy communities and their potential are evaluated and enacted.

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