New assessment finds EU electricity decarbonization discourse in need of overhaul

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It's well known that the EU is focusing its efforts on decarbonizing its economy. In many respects, Germany's Energiewende personifies the

poster child of that effort. Unfortunately, substantial investments in the Energiewende have not yet yielded significant reductions in GHG emissions and political disillusionment has emerged as an unwelcome result. Decarbonization efforts in other European countries risk making similar blunders unless the contemporary EU policy discourse is thoroughly cross-examined.

A new paper, published last week in *Energy Research & Social Science*, calls into question the credibility of electricity decarbonization narratives in Europe. The work, authored by researchers Ansel Renner and Mario Giampietro of ICTA-UAB in Barcelona, proposes a novel methodological approach for the study of complex issues such as electricity decarbonization.

"Quantitative story-telling," explains Renner, "is a rejection of our shared Reductionist upbringings. It embraces the discipline of complex systems analysis and, in the context of European electricity decarbonization, brings to light a number of serious causes for concern."

Defibrillating the socio-technical discourse

Renner and Giampietro's paper identifies the Achilles' heel of the EU decarbonization policy discourse to be the hyperfixation of that discourse on structural change. It is highly unlikely, the study finds, that the "EU's heroic transition" will result successful unless that transition substantially increases its engagement with functional societal change. Such a change implies moving from questioning what technologies are "made of" to questioning what technologies are "made for". For example, it may not be wise to assume that advances in solar photovoltaic technologies—coupled with the highly anticipated advent of electric vehicles and smart grids—will suffice to realize radical decarbonization in the immediate future. Instead, it may be wise to spend equal effort on policies that motivate use changes, including, for

example, reductions in long-distance travel as well as the sharing of cars and apartments.

"When I was an undergraduate," remarks Giampietro, "universities had entire departments tasked with the study of energetics. Unfortunately for us, that field has since been systematically eliminated. Our study attempts to reinvigorate the contemporary discourse on decarbonization by identifying a number of 'elephants in the room' inspired by energetics."

The paper is also part of a greater cause and mission statement—that of the EU Horizon 2020 project Moving Towards Adaptive Governance in Complexity (MAGIC). The MAGIC project has been working closely with European policymakers over the past three years, building a strong résumé of heterodox analysis informing the resource nexus. More information and studies on and about water-energy-food resource security in Europe are available on the project website.

More information: Ansel Renner et al, Socio-technical discourses of European electricity decarbonization: Contesting narrative credibility and legitimacy with quantitative story-telling, *Energy Research & Social Science* (2019). DOI: 10.1016/j.erss.2019.101279

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