

# The interview



## Interviewing Erich Muehlegger



**Erich Muehlegger is a Professor of Economics at the University of California, Davis, and a National Bureau of Economic Research research associate. His research interests include industrial organisation, public finance, economic regulation, and environmental policy.**

We had the pleasure of receiving him as a visitor at EnergyEcoLab last semester. We took the opportunity of interviewing him on some of his topics of expertise. We also asked him to reflect on his European experience within our group. Here are some of the highlights:

**Erich, as you know, electricity prices across Europe have been increasing substantially. What are your thoughts on how this could affect the markets for electric vehicles? For example, do you think this might prevent EV adoption?**

Electric vehicle manufacturers and policymakers often highlight the operational cost savings a driver could enjoy by driving an electric vehicle relative to a gasoline-powered vehicle. As electricity prices rise, these private benefits of driving an electric vehicle decline. But, in recent research, David Rapson, a co-author from UC Davis, and I find evidence that electric vehicle buyers in California do not respond as much as one would expect to changes in electricity prices. One possible explanation for this is that first-time electric vehicle buyers lack experience with the cost of charging an electric vehicle, in contrast to the vast amount of experience a driver has with filling the tank of a fossil-fueled car. Our re-



search suggests that even though electricity prices have risen substantially in Europe, the effect on electric vehicle sales may be more modest than we might expect.

**Some energy and climate policies, such as solar or EV adoption subsidies, seem to benefit high-income households more. What can be done to avoid these policies' potentially adverse distributional implications?**

This is an important question for policymakers and researchers. Over the past decade, high-income households adopted green durables like solar panels and electric vehicles at a much higher rate than the average household. As a result, early subsidy programs accrued disproportionately to high-income buyers. In response, policymakers are starting to prioritise distributional outcomes as an objective of these programs and actively spreading the benefits of green durables more evenly throughout the income distribution. The most common approach is to means-test the program, making eligibility for a subsidy dependent on a household's income. One such recent example is the In-



flation Reduction Act passed recently in the US. But, policymakers are considering other ways of targeting subsidies towards disadvantaged households as well, whether it's excluding high-priced green products (like the Tesla Model S) from subsidies, or targeting special subsidies at households in low-income areas, like some of the electric vehicle incentives in California.



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tation are strongly correlated with income. As a result, what happens over the next decades in the developing world will be crucial to the world's ability to reduce carbon emissions and address climate change. As countries around the world become wealthier,

**What are the most pressing energy/climate policy issues that researchers like us should focus on?**

Recently, I've been thinking a lot about the trajectory of carbon emissions. Carbon emissions, energy consumption, and demand for transportation

demand for energy and transportation will increase. In my opinion, one of the highest priority areas for researchers and policy-makers is to identify pathways to decouple carbon emissions from economic development. Absent solutions that allow countries in the developing world to follow a less carbon-intensive pathway to prosperity, I think meaningful progress on reducing global carbon emissions will be complicated. Fortunately, I think economics has much to add to this discussion, but much work still needs to be done.

**Having spent a semester living in Europe, did you notice any striking differences regarding energy and climate policies compared to the US?**

Most of my recent work has focused on vehicle subsidies and fuel taxes, so the differences in transportation policy were the most notable during my visit. Although parts of the US, like California, and many European countries, are both taking very active roles in electrifying transportation, they take very different approaches. In the US, the focus tends to be on offering incentives to reward people who adopt electric vehicles. In contrast, Europe seems to take a more balanced approach offering both incentives to adopt electric vehicles but also discouraging the adoption of gasoline and diesel-powered vehicles through policies like clean vehicle zones at the centre of cities and substantial taxes on fossil-powered vehicles.

**What can you highlight about your visit to Madrid? What can you tell someone who wants to come to EnergyEcoLab?**

I had a fantastic experience visiting Carlos III University and EnergyEcoLab. Engaging with Professor Fabra's research group was one of the highlights of my trip, allowing me to get valuable feedback on my research and feel like a welcome part of a very active and dynamic research environment. I would strongly recommend visiting Madrid, Carlos III and EnergyEcoLab to any researcher on sabbatical interested in energy or environmental policy •