

Project Title: Comparing Renewable Energy in Spain and France

1. Project Description:

This research project proposes a comparative analysis of renewable energy programs--solar and wind--in two leading European countries--France and Spain. Spain anticipates being a global leader in both technologies with 76 GW of solar and 60 GW of wind capacity by 2030 while France aims for 50 and 40 GW respectively. The Spanish ambition is thus fifty percent larger even though the country has a population roughly fifty percent smaller. The goal of this project is to identify and weigh the myriad factors that have produced these substantially different trajectories for two countries that otherwise have Mediterranean sunshine, maritime breezes, and European Union membership in common.

The agenda for the project would be organized into ten sections. We would begin by describing the French and Spanish renewable power commitments for 2030 and 2050 and how they have evolved over the past ten years. We would then offer a systematic comparison of the following factors, some of which promote the energy transition and some of which constrain it. These factors include the strength of the political coalitions supporting renewables at the local, national, and European levels; the financial costs and subsidies being channeled into the technologies; the competition with nuclear power as a sustainable alternative; the role of hydrogen and batteries to remedy the intermittency challenges; the supply of critical materials like lithium and copper; the relevance of the electric vehicle market; the international export opportunities associated with strong domestic promotion; the repercussions of protectionist US policies like the Inflation Reduction Act, and finally the energy effects of the war in Ukraine.

██████████ is an exceptionally qualified young scholar. She was raised in Spain and is now a USD junior with majors in International Relations and French; so, for starters, she is proficient in both languages necessary to conduct this project. She has completed three courses with me and each of these courses has provided her with some of the tools relevant to the project: first, her introductory course with me not only showcased comparative analysis but included some specific examination of Chinese energy policies; second, her study abroad course in Asia included discussions of several energy projects like nuclear power in Korea and hydropower in Cambodia; and, third, her upper-division seminar on regional energy futures explored the entire spectrum of regional energy sources. In sum, while ██████████ does not have extensive research experience, she has the broad knowledge and specific skill set to conduct this research with a high level of sophistication.

2. Mentor Support Plan:

Supporting ██████████ on this project would be a pleasure given her talent and experience; it would also be mutually beneficial given my ongoing research agenda on energy futures. I have worked on nuclear power futures intermittently over my career and I will be presenting a conference paper in March 2024 on European nuclear futures especially as influenced by the war in the Ukraine. I anticipate a summer agenda shaping up that paper for publication and would expect a small but significant overlap with ██████████'s project.

In addition to sharing my knowledge in meetings with ██████████, and offering guidance on reading materials, I would connect her with several of my professional colleagues who have expertise in

geopolitics and renewable energy. The energy sector is so dynamic and complex that conversations with experts are essential to staying on the cutting edge of political and technological developments. Among these contacts are the dozen speakers I recruited for a four-day conference on nuclear power futures at USD in June 2023 using a forty-thousand-dollar budget provided by a Korean university. (I will send you a copy of the proceedings.)

3. Detailed Training Plan:

I am teaching a course on international security this summer so I have a structured calendar that could dovetail quite comfortably with meeting ████████ twice a week from June to August. I would protect two hours on one day for meetings for the two of us as well as another hour or two on another day for meetings with colleagues (some in person and some virtually.) We would organize our meetings sequentially around the timeline topics. ████████ would then write weekly reports running around four double spaced pages with the goal of a final paper running at least forty pages, not counting footnotes, bibliography, or illustrations.

Thank you for considering this mentorship proposal. I am confident that a BURST opportunity for this bright student would be a rewarding investment not only in her academic and professional success but also in pursuit of our global goal of energy sustainability.