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Institution Name
Universidad Carlos III de Madrid



Country
Spain



Research Area (failing down menu, Frascati Manual)
Economics



Thematic Focus
Microeconomics and Industrial Organization



Stakeholders involved
Energy industry, energy-intensive firms, policy makers



Research Phase
In progress

RESEARCH ASSET

Electric Challenges - Energy EcoLab

ELECTRIC CHALLENGES is an ERC Consolidator Grant funded project led by Natalia Fabra at Universidad Carlos III de Madrid. Its main objective is to analyze regulatory and market-based solutions aimed at achieving the energy transition at least cost.

The purpose is pushing out the frontier in the area of Energy and Environmental Economics by carrying out policy-relevant research on a pressing issue: how to achieve the low-carbon transition at least cost.

In the context of electricity markets, some of the issues to be explored include:

- The potential to change households' demand patterns through dynamic pricing,
- The scope for renewables to depress wholesale market prices, and
- The design and performance of the auctions for renewable investments.

The project will run from September 2018 until September 2024.

EnergyEcoLab brings together a group of researchers committed to carrying out rigorous policy-relevant research in the area of Energy and Environmental Economics. Researchers at EnergyEcoLab are uniquely qualified to implement high-impact studies on energy and environmental issues and bring the findings into the public sphere, where they can contribute to improved policy.

POTENTIAL VALORISATION AREAS

- **Collaboration with scientists**, mostly from economics, finance, and from domestic and international institutions.
- **Collaboration with industry**, any company that has an interest in the transition towards a low-carbon economy: those involved in demand flexibility, renewable energies and storage investments, energy efficiency
- **Collaboration with government** - in the domain of actions, policymakers at the domestic or European level for regulatory purposes.



The energy transition is no longer under discussion. The debate is about how to do it best for society. Our models help to foresee scenarios and inform decision-making.

DESCRIPTION OF VALORISATION ACTIVITY

- **New research**
- **New publications**
- **New research models as:**
 - Assessing the efficiency and distributional consequences of dynamic electricity pricing.
 - Designing policies to induce efficient investments in renewables.
 - Electricity Market Modelling. Simulating electricity market outcomes to identify the effects of policy and structural changes. Renewables
 - Studying the market impact of renewable energies. Designing policies to induce efficient investments in renewables.
 - Measuring the causal impact of pollution on health. Understanding how clean energy can improve health and impact human behavior.
- **Actual involvement in the application of research in collaboration with government and business stakeholders**

VALORISATION TARGETS/POTENTIAL FUTURE COLLABORATORS

The team has a track record of collaborating with other researchers worldwide, policymakers, regulators, and firms.