Keynote Lectures

EARIE 2020 (Bologna)
The Energy Transition from an Industrial Economics Perspective

Natalia Fabra gave the Keynote Lecture of the Annual Conference of the European Association of Research in Industrial Economics. Natalia summarized the ongoing research carried out at EnergyEcoLab on the Energy Transition. She emphasized the exciting opportunities that this area of research brings for Industrial Economists. First and foremost, it is a highly policy relevant area. In Europe, the EC launched in 2019 its European Green Deal, with which it expects to spend over 1Tn€ over the next two decades to fully decarbonize the European economy by 2050. This has been stressed in its Recovery Fund, which heavily relies on the climate agenda as a recovery strategy. Likewise, California is a leader in the fight against climate change. The commitment is to achieve a 90% carbon-free electricity sector by 2040. And very recently, if elected, Joe Biden has announced an even more ambitious objective, which is to achieve US power sector decarbonization earlier on, by 2035. As it is well known, setting objectives is very important, but there is no guarantee that they will be achieved unless the right policies are put in place.

For this reason, **economists in various fields, notably including Industrial Economics, can make an important contribution by identifying key challenges and policy solutions to achieve these objectives at least cost for society**. Indeed, many that arise when studying the Energy Transition are really at the heart of Industrial Organization: competition, incentives, procurement, market design... issues that can be analyzed both theoretically as well as empirical thanks to the availability of large and highly detailed datasets. Many relevant questions remain unanswered and policy-makers and practitioners out there are eager to know the answers.

Natalia divided her lecture in three blocks, which in her view, help classify the key regulatory challenges to decarbonize the power sector: (i) market performance, (ii) market design and (iii) coping with renewables. First, if we are to achieve an almost carbon free power sector in 15-20 years' time, do we really know how competition will look like in such markets? To answer this question we need to understand how renewables will compete in these markets (the fact

that they have zero marginal costs does not necessarily imply that they will be bidding at zero), and how the conventional energy sources will change their bidding behavior following the massive entry of renewables. Second, firms' behavior will likely depend on market design issues, and hence it is important to explore how different market designs affect the performance of markets that are heavy on renewables. Market design will critically affect whether firms have the incentives to carry out the investments in renewables, as well as their technology choices. Last, as it is well understood, renewables are not always available, their availability is intermittent, with strong seasonal but also stochastic components. This poses a limit to the expansion of renewables, as electricity demand and supply have to be equalized at all times. The solutions to cope with renewables' intermittency can come either from the supply side (e.g. through storage solutions, more capacity or more transmission) or the demand side (e.g. by using prices to induce consumers to shift their consumption towards hours with high renewables production). Understanding the feasibility and desirability of these various options is key to designing policies that allow us to achieve the energy transition at least cost. Natalia discussed these issues by referring to the main take-aways of the projects carried out at EnergyEcoLab. The task is certainly not over, but we will keep on striving to bring light into this exciting topic ·

Sides of lecture

PDF

Video

SURED 2020 (Ascona)
Auctioning Renewables

The SURED 2020 - Monte Verità Conference on Sustainable Resource Use and Economic Dynamics, organized by ETH-Zurich, took place on October 19-22, 2020. Some of the contributed sessions included topics such as Trade and Environment, Growth and Technical Change, or Environmental Policies, among others. The keynote lectures were given by Reyer Gerlagh (Tilburg University), Natalia Fabra (Universidad Carlos III de Madrid), and Scott Barrett (Columbia University). In her lecture, entitled "Auctioning Renewables", Natalia Fabra emphasized the contribution of the 2020 Nobel Prize winners in Economics, Paul Migrom and Robert Wilson, to the field of Energy Economics, as auctions have been increasingly used to allocate renewable investments. In her talk, she summarized EnergyEcolab's research on this policy-relevant topic ·

Sides of lecture

PDF

Video

Academic and Social Outreach

Our members have also participated in the following research events, among others:

Energy & Climate Center, TSE. November 6-7, 2018.

2019 World Resources Institute (Jakarta, Indonesia). January 2019.

Developments in Energy Economics Workshop (Spanish Association of Energy Economics AEEE): February 25, 2019

Royal Economic Society Conference 2019 (University of Warwick): April 15-17, 2019

8th Mannheim Energy Conference (ZEW): May 6-7, 2019

Twelfth Conference on the Economics of Energy and Climate (TSE): June 18-19, 2019

46th Annual Conference of the European Association for Research in Industrial Economics (EARIE): August 30-September 1, 2019

5th Annual Conference on the Economic Assessment of European Climate Policies (FSR Climate): November 28-29, 2019

Oligo 2020 Virtual Workshop (Maastricht University): June 5-6, 2020

47th Annual Conference of the European Association for Research in Industrial Economics (EARIE): August 28-30, 2020

And they have presented their works at various institutions, including:

"A Primer on Capacity Markets" has been presented by Natalia Fabra at Èlectricité de France.

"Auctions with Unknown Capacities: Understanding Competition among Renewables" was presented by Natalia Fabra at Toulouse School of Economics, Université Libre de Bruxelles, University of Mannheim, Bocconi University and European University Institute.

"Market Power and Price Discrimination: Learning from Changes in Renewables Regulation" has been presented by Natalia Fabra at Cambridge University, Imperial College London, UC Davis Virtual Talk, Sciences Po Paris, Cambridge Univeristy and VIOS CEPR.

"Cooking That Kills: Cleaner Energy, Indoor Air Pollution, and Health", presented by Imelda at Universidad Carlos III de Madrid.

"The Response of Consumption to Fuel Switching", presented by Imelda at World Resources Institute.

"Clean Energy Access: Gender Disparity, Health, and Labor Supply", by Imelda at Universidad Carlos III de Madrid, Paris School of Economics, Université Paris-Dauphine, and Universidad de Navarra.

New Team Member

Sara Gutiérrez is a fourth year undergraduate student in Economics at Universidad Carlos III de Madrid. After completing an erasmus Program at Bocconi University and a summer intern at CEMFI, she realized that she is passionate about industrial organization. Now at EnergyecoLab, she is eager to discover whether this collaboration could be the starting point of a research career.

New research agreement signed with Bank of Spain

We will be collaborating with researchers at Bank of Spain to conduct policy relevant research under the project "Energy transition: An analysis of the design and impact of economic policies".