

SÉMINAIRE

DES DOCTORANTS

Célia Escribe: Resilience of decarbonization scenarios in the face of energy price shocks

ABSTRACT

The imperative to achieve carbon neutrality by 2050 requires significant changes in the economy's structure, especially in the energy sector. Electrification will play a pivotal role in replacing fossil fuels in many productive sectors, and the transformation of the energy mix will vary among industries. Recent studies in production networks have highlighted how the intricate details of production structures impact the way shocks ripple through the economy. Consequently, we can expect scenarios for decarbonization, which differ by their production structure and sectoral energy mix, to exhibit varying levels of resilience to energy price shocks when compared to the current situation. I am particularly interested in understanding how different levels of sufficiency across scenarios impact their resilience to energy price shocks. In this study, I develop a flexible general equilibrium production network model with Constant Elasticity of Substitution production structures. Using this framework, I derive formulas to analyze how energy price shocks propagate across the network and lead to aggregate changes. Specifically, I focus on the influence of parameters like the elasticity of substitution and sufficiency on the overall effects of such shocks. I will then numerically investigate how the resilience of different decarbonization scenarios changes over time and across scenarios, using data from the ADEME scenarios

[BRAINSTORMING]

THURSDAY NOVEMBER 16, 4:30-5:30 - MEETING ROOM + ZOOM

ORGANIZERS: CLÉMENT BOYER, THIBAUT BRIERA, BERTILLE DARAN, SIMON JEAN & BAPTISTE PARENT