PROGRAMME : 48ème SÉANCE DU SÉMINAIRE DE RECHERCHES EN ÉCONOMIE DE L'ÉNERGIE DE PARIS-SCIENCES-LETTRES
QUELS ENJEUX ET MOYENS DE RÉDUIRE LES COÛTS DU CAPITAL DES INVESTISSEMENTS EN PRODUCTION ÉLECTRIQUE ?

Mercredi 26 Février 2020, de 16h30 à 18h30
Université Paris-Dauphine, Amphi 5, 2ème étage
Place du Maréchal de Lattre de Tassigny-75116 Paris Cedex

Le Séminaire de Recherches en Économie de l'Énergie de Paris-Sciences-Lettres est conjointement organisé par le CERNA (MINES PARIS TECH), le CGEMP (Université Paris-Dauphine), la Chaire European Electricity Markets (CEEM (Université Paris-Dauphine)), et i3 (l'Institut interdisciplinaire de l'innovation), membres de PSL. Il est animé par François LÉVÊQUE (CERNA et MINES PARIS TECH), Dominique FINON (CEEM et CNRS-CIRED) et Patrice GEOFFRON (Directeur du CGEMP, Université Paris-Dauphine).

Nils May (Senior research fellow, DIW Berlin)
Financing Power : Impacts of Energy Policies in Changing Regulatory Environments
Power systems with increasing shares of wind and solar power generation have higher capital and lower operational costs than traditional technologies. This increases the importance of the cost of finance for total system cost. We quantify how renewable policy design can influence cost of finance by addressing regulatory risk and facilitating hedging. We use interview data on wind power financing costs from the EU and model how long-term contracts signed between project developers and energy suppliers impact financing costs in the context of green certificate schemes. Between the policy regimes, the cost of renewable energy deployment differs by 30%.
Article co-écrit avec Karsten Neuhoff en cours de publication dans *The Energy Journal* (actuellement Discussion Paper DIW-1684).

Benoît Peluchon (Chercheur senior, EDF-Département R&D)
Market Design and the Cost of Capital for Generation Capacity Investment
We study the impact of market design on the required rate of return asked by investors (the cost of capital) for generation investments. We find that, if the Capital Asset Pricing Model applies and there is a positive correlation between electricity demand and the market return, then different generation technologies have different costs of capital at equilibrium in an Energy Only market design. We show that peak capacity underinvestment can be explained by financial risk, even in the absence of the so-called "missing money" problem. In order to respect generation adequacy standards, fixed price contracts or capacity remuneration mechanism should be introduced. We find that Contracts for Difference (CfDs) or capacity market lower the equilibrium cost of capital, and thus lead to more capacity investment when perfect competitition applies, as well as to lower expected costs for consumers. As a consequence, these mechanisms should not be seen as subsidies, but as welfare improving market design reforms. By opposition, strategic reserves are not an efficient capacity mechanism: they have no cost of capital reduction properties and only add costs to an Energy Only design.
Publié dans les Working Papers de la Chaire Marchés Électriques Européens de Paris-Dauphine (CEEM Working Paper 41-2019/
http://www.ceem-dauphine.org/assets/wp/pdf/CEEM_Working_Paper_41_Beno%C3%AEt_Peluchon.pdf**).**

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