



## **‘Social studies of energy system transitions through shifting valuations and agencies’ IREMB Conference October 23-25, 2019 at Aalborg University, Copenhagen**

Actors operating within energy systems increasingly find themselves caught up in messy transition processes as they pursue a low carbon future. The increased use of renewable energy requires a transition to new modes of valuation. And it calls for a redistribution of agency amongst a proliferation of new and redefined actors. Who are the producers, the consumers, the buyers, sellers, and regulators, and by what logic and according to what interests do they participate in the energy system? How do we value energy, the resources that produce it, and the infrastructures that delivers it, when it no longer is fossil fuel based? How and to what end do we attach a price to it? How are new markets performed by economics or other forms of expertise? What role can state planning play in these transition processes? How do shifting valuations and shifting climate policies reshape existing coalitions and lead to the formation of new ones? Developing answers to these questions is necessary, as renewables no longer are add-ons to a carbon-based system but becoming the dominant mode of energy production. This opens a new space for social studies of energy system transitions across valuation studies, transition studies, social studies of finance, and economic sociology to contribute to understanding and enacting energy transition.

There are no neutral economies, only different political economies. This perspective is clearly demonstrated by the concrete varieties of current market arrangements with the acceptance of subsidies, special rules, externalities, CO2 cost etc., for fossil fuels, nuclear power and renewable energy to make them assets for financialization.

A key tenet of this conference is that energy system transitions require shifting existing arrangements of knowing and valuing in order to qualify and re-qualify actors, technologies, market arrangements and fuels. This calls for attending to the distributed and equipped processes of knowing and valuing through which actors seek to re-frame their worlds and make their unknown futures practically actionable from their positions as producers, consumers, regulators and investors.

Thus, the conference will explore the dynamics involved in emerging realities of changing to low carbon technologies and practices through the variety of valuations taking place when calculative arrangements combine values, politicizations and economizations in transition processes.

### **Key note speakers:**

**Daniel Breslau**, Department of Science, Technology and Society, Virginia Tech, USA, and

**Alain Nadaï**, Center of International Research on Environment and Development (CIRED), Paris

The conference aims at exploring the following three themes:

- 1. Interrogating existing forms of knowing and valuing in the carbon economy**
- 2. Re-organizing and re-designing existing valuation arrangements to reorient actors**
- 3. Re-configuring from constructing new actors, new technologies, system components and new flexibilities in future low-carbon systems**

### **1. Interrogating existing forms of knowing and valuing in the carbon economy**

How are specific forms of knowledge and valuation constitutive of the carbon economy? What role do economic expertise, calculative devices, and accounting practices play in framing legitimate technologies, actors and fuels: e.g. in classifying biomass as CO<sub>2</sub>-neutral, classifying power plants as base-load and peak load units in fossil fuel markets, preventing distributed households from using the grid to sell their electricity production, and in socio-economic analysis etc.

### **2. Re-organizing and re-designing existing valuation arrangements to reorient actors**

Technological transitions require transitions in valuation arrangements. Markets, pricing schemes, calculative standards, and regulatory practices that presuppose energy derived from fossil fuels are ill-suited to the task of encouraging investment in renewable energy sources, which are distributed, and have zero marginal costs. How are new valuation arrangements designed to reorient actors, or to produce new actors altogether? E.g. current electricity markets fail to incentivize investors in electricity systems based upon high shares of wind and solar power with zero-marginal cost. Carbon trading systems, in turn, have failed dismally in reducing carbon emissions.

### **3. Re-configuring from constructing new actors, new technologies, system components and new flexibilities in future low-carbon systems**

The existing sociotechnical arrangements are re-configured through transformations and adding new elements. How are new technical, legal and calculative arrangements invoked in 1) assembling price responsive new consumers and consumption practices; 2) blurring and redrawing the classification of producers and consumers; 3) enacting new collective actors such as energy communities and local energy markets, and 4) making future system components for a low carbon energy system valuable and actionable, be it the electrification of heating and mobility services, the development of new electro-fuel value chains, or the development of large-scale storage capacities.

We welcome analytical/empirical papers informed by STS, innovation studies, valuation studies, practice theory, institutional theory and other disciplines who addresses these questions.

Organized by the IREMB-project – Innovative Re-making of Markets and Business Models for a Renewable Energy System based upon Wind Power.

#### **IMPORTANT DATES**

**June 14:** Abstract submission

**June 24:** Notification of acceptance

**October 7:** Submission of papers

**October 23:** Opening reception and registration

**October 24-25:** Conference (and registration morning 24)

**Conference Fee:** 150€ + 75€ for conference dinner

#### **Organizing committee:**

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Follow this [link](#) for more information about the conference and accommodation, registration and abstract submission.