



Energy Policy and Environment  
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## CNRS

The National Centre for Scientific Research (Centre National de la Recherche Scientifique) is a government-funded research organisation, under the administrative authority of France's Research Ministry. CNRS counts 1256 research units which are spread throughout France, and a large body of permanent researchers, engineers, technicians, and administrative staff that works in these units (26 080 employees). As the largest fundamental research organisation in Europe, CNRS is involved in all scientific fields. One of the major objectives of CNRS' interdisciplinary programs is to promote inter-disciplinarity in order to improve knowledge, ensure economic and technological development and solve complex societal problems.

## LEPII, Grenoble University – CNRS

The International Integration and Industrial Economics Laboratory (LEPII, Laboratoire d'Economie de la Production et de l'Intégration Internationale), is a joint research unit of the University of Grenoble (Université Pierre Mendès-France) and of the Centre National de la Recherche Scientifique, France. The Laboratory employs 60 members, involved in two main research programmes: i. Energy, Resources, Environment and Negotiations; ii. International Governance and Social Regulations. Since January 2007, the **LEPII's Director is Patrick Criqui.**

## Energy, Policy and Environment group

The Energy, Policy and Environment group at the LEPII laboratory is composed of a team of ten permanent members – CNRS research fellows and University teachers – and about five junior researchers preparing their PhD thesis. The EPE group's main activity within the LEPII is oriented towards **economic research on energy and environment**, either from an academic or applied economics perspective. EPE is also strongly involved in teaching activities for the Grenoble University PhD programs or for the Institut Polytechnique de Grenoble. The experience and capabilities in performing research on international energy issues stems from a long experience in the **development of energy models, including the EFOM, MEDEE, SIBILIN and POLES model.**

It currently covers three main research areas:

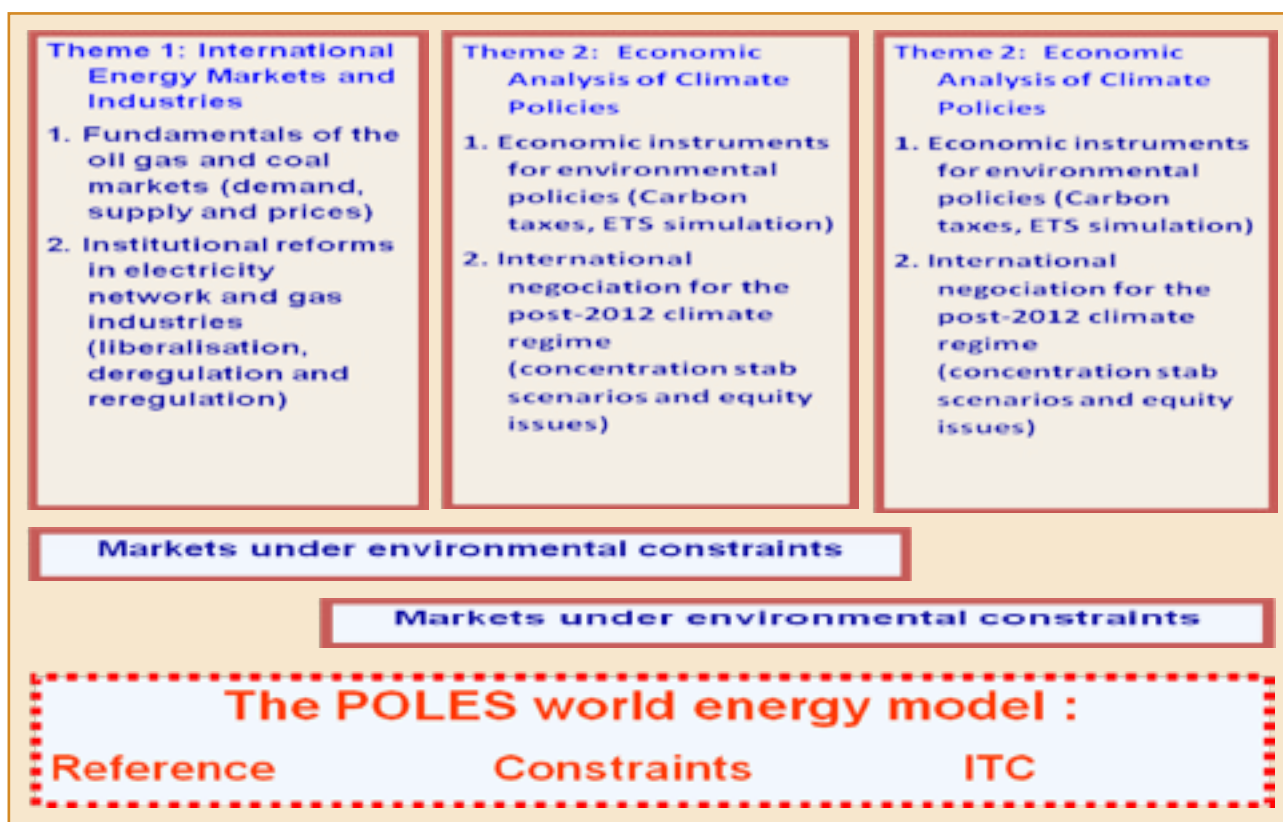
- i. International energy markets and industries;**
- ii. Energy, GHG abatement policies and international negotiations;**
- iii. Environmentally-induced technological change in the energy sector.**

The LEPII-EPE research activities are based on public funding and contractual agreements with governments, EC Directorates and energy companies. Over the past years, the EPE has worked: in France, for the ADEME, the « Centre d'Analyse Stratégique », the French Electricity Board, the Ministry of the Environment, the Ministry of Industry and the CNRS Energy Programme; in Europe, for the European Commission's DG-Research, DG-Environment and DG-TREN. The various projects explored different topics related to energy modelling and scenarios, economic analysis of the trends in the energy sector and climate policy design and assessment.

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# LEPII : Research on Energy, Resources, Environment and Negotiations



## Refereed journal articles

### ■ Forthcoming

- Abbas, M., "Preparing for 2012 and beyond. Towards a european strategy for climate-compatible regulation of international trade", *Climate Policy*.
- Boussema, S., Locatelli, C., "The bases of a new organisation of the Russian oil sector : between private and State", *Journal of Energy and Development*
- Rossiaud, S., Locatelli, C., "The obstacles in the way of stabilizing the Russian oil model", *Post Communist Economies*.

### ■ 2009

- Garanina, O. (2009), "What Beyond Oil and Gas ? Russian Trade Specialisation in Manufactures", *Post-Communist Economies*, vol. 21, no. 1, March 2009, pp. 1-29.

### ■ 2008

- Angeletou-Marteau, A. (2008), "Informal water suppliers meeting water needs in the peri-urban areas

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- Bento, N. (2008), "Building and interconnecting hydrogen networks: insights from the electricity and gas experience in Europe", *Energy Policy*, 36 (8), pp. 3009-18.
- Finon, D., Locatelli, C. (2008), "Russian and European gas interdependence: Could contractual trade channel geopolitics?" *Energy Policy*, 36 (1), pp. 423-42.
- Fouquau, J., Destais, G., Hurlin, C. (2008), "Energy demand models: a threshold panel specification of the 'Kuznets curve'", *Applied economic letters*, online access, first published 18 January 2008.
- Locatelli, C. (2008), "Changes in Russia's gas exportation strategy: Europe versus Asia ? ", *East-West Journal of Economics and Business*.
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- Locatelli, C. (2008), "Les enjeux de la réorganisation du secteur pétrolier russe : vers un nouveau modèle privé-public ? ", *Revue d'études comparatives Est-Ouest*, vol.38, n°1, pp.131-150.
- Locatelli, C. (2008), «Les stratégies d'internationalisation de Gazprom, enjeu de la constitution d'une grande compagnie d'Etat russe», *Le Courrier des pays de L'Est*, n°1061, p.32-46.
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- Stankeviciute, L., Criqui, P. (2008), "Energy and climate policies to 2020 : the impacts of the european " 20/20/20 " approach", *International journal of energy sector management* 2 (2), pp. 252-73.
- Stankeviciute, L., Kitous, A., Criqui, P. (2008), "The fundamentals of the

future international emissions trading system", *Energy Policy*, 36 (11), pp. 4272-86.

#### ■ 2007

• Garanina, O. (2007), «Evolution de la spécialisation internationale de la Russie depuis le début de la transition», *Innovations. Cahiers d'économie de l'innovation*, 2007/2, n°26, pp. 133-153.

• Russ, P., Criqui, P. (2007), "Post-Kyoto CO2 emission reduction : the soft landing scenario analysed with POLES and other world models", *Energy Policy*, vol. 35, n° 2, pp. 786-796.

• Winkler, H., Baumert, K. A., Blanchard O., Burch S., Robinson J., (2007), "What factors influence mitigative capacity ?", *Energy Policy*, vol. 35, n° 1, pp. 692-703.

#### ■ 2006

• Blanchard, O., Criqui, P., Kitous, A., Mima, S. (2006), "The impact of climate policies on energy markets and the price of carbon", *Revue d'économie financière*, n° 83 (special edition "carbon finance"), pp. 89-110.

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• Menanteau, P. (2004), "Liberalisation of the electricity sector and development of distributed generation : Germany, United Kingdom and France", *Energy & Environment*, vol. 15, n° 2, pp. 239-248.

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• Berthaud, P., Cavard, D., Criqui, P. (2006), "Économie politique internationale de l'environnement global : Kyoto est-il condamné ?", in : La question politique en économie internationale. P. Berthaud et G. Kebabdjian, eds. Paris, La Découverte, pp. 213-225.

• Boussena, S., Locatelli, C. (2006), «Les enjeux de la dépendance pétrolière de la Chine», in : L'économie mondiale 2007, La Découverte, Paris, pp. 71-81. (Repères ; 462).

• Pauwels, J.-P., Boussena, S., Locatelli, C., Swartenbroekx C. (2006), "Questions actuelles de géopolitique du pétrole et du gaz". Paris, Vuibert.

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# Experience of Scientists

• **Patrick Criqui, Senior Research Fellow (Directeur de Recherche - CNRS) director of the LEPII**, is a graduate of the École des Hautes Études Commerciales and a doctor in energy economics at the University of Grenoble. He has an experience of almost thirty years of research in international energy economics and modelling. Since 1990, he has in particular developed the POLES model that is currently used by many French and European institutions, in order to design and assess their energy and climate policies. He has also been a consulting economist for the TOTAL oil company (1992-1993) and Rapporteur of the « Energy 2010-2020 » Study Group of the French Planning Agency (1996-1998). Member of different scientific councils, he also continuously teaches in post-graduate courses at the Université Pierre Mendès-France, Institut National Polytechnique de Grenoble, Institut d'Études Politiques, Université Paris Dauphine, Ecole Polytechnique Fédérale de Lausanne.

• **Mehdi Abbas, Associate Professor of Economics at the University of Grenoble and researcher at LEPII-EPE**, holds a PhD in Economics from the University of Grenoble II. His research tackles the evolution of the multilateral trade system and the issues linked to trade regulation. He assesses the way in which regulations are being elaborated and their effects on the WTO members (developing countries in particular). Since 2007, he has undertaken research on the articulation between the multilateral trade regime and the OPEC oil regime in a joint framework of international exchange and sustainable energy development.

• **Jean-Pierre Angelier, Professor of Economics at the University of Grenoble and researcher at LEPII-EPE**. His research encompasses institutional change in network industries, in particular in the field of international oil and gas markets. The analysis of the evolution of international hydrocarbons markets raises several questions, notably concerning oil: on an apparently competitive market given a large number of actors, what fundamental factors influence the mechanisms of price determination: productive capacities, intensity of competitive forces, strategies of actors?

• **Paolo Avner, Economist and Research Engineer at LEPII-EPE, graduated from ParisTech and the University of Paris I – La Sorbonne**. His research has concerned various aspects of the economics of climate change and notably instruments aiming to decrease GHG emissions such as the Clean Development Mechanism and Border Tax Adjustments. Currently, his work concerns local actions at the city or regional level to tackle climate change. He is involved in the upgrading of the POLES model in order for it to account for urban climate change mitigation strategies.

• **Odile Blanchard, Associate Professor of Economics at the University of Grenoble and researcher at LEPII-EPE**, graduated from École des Hautes Études Commerciales (HEC) and holds a PhD in energy economics from the University of Grenoble, France. She teaches various microeconomics and environmental economics courses at the graduate and post-graduate levels. She conducted research studies on energy demand and modelling in developing countries in the early 1990s. Since then her research has mainly been focused on the design of climate change mitigation policies. She has addressed efficiency and equity issues, contributed to the development of the Climate Analytical Indicators Tool (CAIT) of the World Resources Institute (WRI), and developed work on the concept of technological capacity to mitigate climate change. Simultaneously she has been managing a climate-friendly university initiative, aiming to reduce the greenhouse gas emissions of the University of Grenoble.

• **Sadek Boussena, Professor at the University of Grenoble and researcher at LEPII-EPE**, is an independent consultant in oil and gas markets domain. He has successively occupied the functions of Minister of Energy of Algérie (1988-1991), CEO of Sonatrach (Algerian national oil and gas company), and Président of OPEC (1989-1991).

• **Cédric Clastres, Associate Professor of Economics at the Institut National Polytechnique de Grenoble and associate researcher at LEPII-EPE** holds a doctorate in Economics from Montpellier University. His research deals with the economics of network industries and with regulations which accompany the liberalisation of energy markets (gas and electricity). He also works on incentive issues for the development of renewable energies, and on the impacts of the integration of distributed production (renewable sources) in electricity networks notably in terms of need for system services.

• **Olga Garanina, Researcher at LEPII-EPE**, holds a PhD in Economics from Grenoble University and a candidate degree from St Petersburg State University of Economics and Finance. Her research deals with development of the Russian economy and in particular with the Russian energy sector. Her current research project analyses the evolution of Russian internal energy demand and the economics of natural gas industry in a new world economic context.

• **Catherine Locatelli, Research fellow (chargée de recherche CNRS) at LEPII-EPE** holds a doctorate in Economics Sciences from the University of Grenoble II. Since 1989, she has worked on all energy issues concerning Russia, Caspian Basin and China. More specifically, her research relates to the reform of Russian oil and gas sectors (issues of privatisation, deregulation and price reforms). She is also studying the strategies of the Russian oil and gas companies on the international oil and gas markets: for example the Russian and European gas interdependence, the consequence of the liberalisation of the European gas market for the gas suppliers, the competition between Russia and Caspian countries to supply the EU.

• **Philippe Menanteau, CNRS Research Fellow at LEPII-EPE**, is an engineer, graduate from the "Ecole Spéciale des Travaux Publics" and also doctor in Energy Economics of the "Institut National des Sciences et Techniques Nucléaires". He has joined the CNRS in 1993 after an experience in the management of technical co-operation between French and European local authorities on urban energy and environment policies. His research activity is focused on technological change in the energy sector and the analysis of policies and measures dedicated to the dissemination of new energy technologies. He is in charge of the development of the energy technology databases that are used in large-scale energy system models.

• **Silvana Mima, Research Fellow at LEPII-EPE**, holds a PhD in business administration of the University of Tirana and is a doctor in energy economics of the University of Grenoble. In her research activities at LEPII-EPE since 1991, she has participated in many of the research programmes of the institute, particularly on international energy scenarios in the DG research "WETO-H2" programme, and on the analysis of new energy technology developments (Fuel-cells, hydrogen, carbon capture and sequestration) in the framework of SAPIENTIA, CASCADE-MINTS, MENGHTech, HyFrance projects, on carbon constraint scenarios in the framework of ADAM project or for French companies such as ARCELOR-MITAL (ULCOS project) or FONDDRI.