

## *Loyola de Palacio Chair Newsletter – Issue N°1*

**March 2010**

This newsletter will inform you about past and future activities of the Loyola de Palacio Chair in European Energy Policy (LdP Chair). We hope the newsletter will help you to get an overview of our academic or policy events and research activities.

### **The Loyola de Palacio Chair**

The Loyola de Palacio Chair of the Robert Schuman Centre for Advanced Studies at the European University Institute (EUI) honors Loyola de Palacio (1950-2006) former Vice-President of the European Commission and EU Commissioner for Energy and Transport (1999-2004), having been a pioneer in the building of an EU Energy Policy. A great European, a decisive woman and a person wholly dedicated to the common good. The Loyola de Palacio Chair promotes research and debates in the area of energy policy. Its objectives are to produce in-depth and up-to-date analytical studies and promote informed discussions and publications on key issues such as market building, security of supply, climate change, zero carbon economy and society. It engages a fruitful dialogue between academics of all kinds (economists, lawyers, engineers and political scientists) and practitioners, decision-makers and the public opinion.

### **Backward mapping and forward looking**

Since the beginning of the academic year 2009-2010, the Loyola de Palacio Chair has performed a number of noticeable activities:

- September and December 2009, two “**Smart EU energy policy**” workshops held in Milan and at Wilton Park in collaboration with Fondazione Eni Enrico Mattei, the Clingendael International Energy Program and at Wilton Park. Presentations and papers are available on our webpage: <http://www.loyola-de-palacio-chair.eu/>. A summary of the workshops was issued in the beginning of March 2010. The general purpose was: “*Are the three pillars of the EU energy policy consistent with each other? Are they reinforcing or conflicting? Are there obvious adaptations or changes able to make the parts and the whole of it “smarter”?*”

- November 2009, first workshop “**New trends in economics, law and engineering of energy research in Italy**”. The purpose was to discuss findings from innovative Italian researchers from different horizons. The papers were regrouped in a special issue proposed to *Energy Policy* under the title: “*Electricity Market Pricing Dynamics*”.

Presentations and papers are available on our webpage: <http://www.loyola-de-palacio-chair.eu/>

- Also in November (in cooperation with the University of Leuven), the autumn seminar of the “**Young Energy Engineers & Economists Seminar**” (YEEES) held in Leuven (Belgium). The YEEES aims at fostering inter-disciplinary research and exchanges between engineers and economists in the field of energy policy. Twice a year, the YEEES gathers PhD students, Post Docs and Professors coming from Cambridge University, T.U. Dresden, EUI, K.U. Leuven, Comillas Madrid, University Paris-Sud 11, Supelec (Paris), Vienna University of Technology. The next seminar will take place in April at Cambridge University.

- In December 2009, call for the LdP Chair “**Best paper and best PhD in the field of EU energy policy**”. The LdP Chair offers a prize of 5 000 euros to the best PhD successfully defended between 2008 and 2009 in the fields of law, economics and engineering applied to EU energy policy. Furthermore, the LdP Chair offers a prize of 1 000 euros to the most valuable paper in law, economics and engineering applied to EU energy policy.

- Still in December, conclusion of the final agreement with the publisher Edward Elgar to open a book series named the “**Loyola de Palacio Series in Energy Policy**”. It will promote energy policy research, develop the academic knowledge and nurture the “market for ideas” in the field of energy policy making. Two books will be issued in 2010. First the main finding of 2006-2008 EU funded “CESSA research program on European energy security of supply” covering gas, nuclear and hydrogen; edited by C. von Hirschhausen (Berlin University and DIW). A second book will be edited by Jean-Michel Glachant and Dominique Finon (CNRS) on the proceedings of the LdP-Larsen workshop “Role of long term contracts in energy markets” (held in Florence in January 2009).

Along the year 2010 (April to October), the Chair will engage in a new program of four workshops dedicated to “*Energy Networks and Regulation under Climate Change Policy*” in cooperation with the research group “*Network Economics and Engineering*” at the SUPELEC engineering school (France). We will look at the needs of transmission and distribution networks for a new kind of regulation supporting EU climate change policy. These workshops will host academics and stakeholders (energy ministries, European Commission, regulators and the industry). The program will deliver a set of final conclusions and recommendations on the needed adaptation of network regulation to EU climate change policy.

**Professor Jean-Michel Glachant**

*Holder of the Loyola de Palacio Chair*

## Forthcoming academic & policy events in 2010

<b>Date</b>	<b>Title of the conference</b>	<b>Location and description</b>
April	<b>Smart EU Energy Policy: conclusions and recommendations</b>	<i>Brussels Final event of a series in cooperation with Fondazione Eni Enrico Mattei, Clingendael International Energy Program and Wilton Park</i>
8 <sup>th</sup> / 9 <sup>th</sup> April	<b>Young Energy Engineers &amp; Economists Seminar (YEEES)</b>	<i>Cambridge University in cooperation with the Cambridge “Electricity Policy Research Group”</i>
7 <sup>th</sup> May	<b>1<sup>st</sup>- Network and Regulation under Climate Change Policy</b>	<i>Florence Academic roundtable “What regulatory frame for networks under Climate Change policy priorities?” in cooperation with Supelec</i>
10 <sup>th</sup> May	<b>2<sup>nd</sup>- Network and Regulation under Climate Change Policy</b>	<i>Paris Regulation of electricity storage facilities in cooperation with Supelec</i>
2 <sup>nd</sup> July	<b>3<sup>rd</sup>- Network and Regulation under Climate Change Policy</b>	<i>Florence Electricity Demand Management and Energy Efficiency Experiments in cooperation with Supelec</i>
21 <sup>st</sup> and 22 <sup>nd</sup> October	<b>4<sup>th</sup>- Network and Regulation under Climate Change Policy</b>	<i>Florence Conclusions and recommendations on “Energy Network and Regulation under Climate Change Policy” in cooperation with Supelec</i>

***Books and special issues  
edited by the Loyola de Palacio Chair  
(2009-2010)***

**Two books in 2010**

- First book “CESSA research program on European energy security of supply” covering gas, nuclear and hydrogen; edited by C. von Hirschhausen (Berlin University and DIW).
- Second book “Role of long term contracts in energy markets” edited by Jean-Michel Glachant (LdP) and Dominique Finon (CNRS).

**Two special issues in 2009-2010**

- **Flacher, David and Yannick Perez** (editors) (last quarter 2009), special issue “Economie des Réseaux” in ***Revue d’Economie Industrielle***.
- **Glachant, Jean-Michel and Dominique Finon** (editors) (2010 forthcoming) special issue on “Adapting to massive Wind Energy” in ***Energy Policy***.

For further information on our publications: <http://www.loyola-de-palacio-chair.eu/>

## Working Papers 2010

Since January 2010, 4 working papers have been issued:

### **HANCHER, Leigh and Adrien DE HAUTECLOCQUE (2010)**

*Manufacturing the EU Energy Markets. The Current Dynamics of Regulatory Practice.*  
Series at EUI RSCAS, 2010/01, Loyola De Palacio Program on Energy Policy.

#### **Abstract**

This paper aims to analysis the new dynamics at work in EU energy regulation. Since the publication of the European Commission's 'Sector Inquiry Report' in January 2007, European energy companies have felt the cold wind of competition law - many for the first time. In addition, national competition authorities (NCAs) have been actively pursuing abusive market practices - sometimes making innovative use of competition law in the process. Certain energy giants have agreed to unbundle their transmission networks - even when their national governments opposed the inclusion of ownership unbundling in the draft 'Third Package' of electricity and gas legislation. In parallel, the Third Package envisages the creation of a new regulatory agency - ACER - to co-ordinate technical crossborder regulatory issues in the internal market. So who will be in the driving seat in the next decade - and will co-ordinated regulatory powers be the preferred approach to market design? Will regulatory rules co-exist alongside competition based controls or will the latter gradually supersede the former? This chapter will examine these critical issues.

accessible via

[http://cadmus.eui.eu/dspace/bitstream/1814/13077/1/RSCAS\\_2010\\_01.pdf](http://cadmus.eui.eu/dspace/bitstream/1814/13077/1/RSCAS_2010_01.pdf)

### **HE, Xian and Georg ZACHMANN (2010)**

*Catching the maximum market value of electricity storage – technical, economic and regulatory aspect.*

Series at EUI RSCAS, 2010/02, Loyola De Palacio Program on Energy Policy.

#### **Abstract**

The creation of competitive wholesale electricity markets allows to evaluate the "arbitrage value" of an electricity storage unit, which stems from buying and storing electricity when prices are low, and selling it when prices are high. The focus of this paper is to demonstrate that the arbitrage value can be highly sensitive with respect to the dimensioning of an electricity storage unit. A simulation model is explored to calculate the arbitrage value of different storage units by finding the optimal hourly operating strategy during one-year period. The results of simulation show that optimizing the dimensioning of a storage unit is as important as choosing the fittest technology. Furthermore we provide evidence that the optimal set-up of a storage unit can adapt to exogenous factors such as grid tariff and local electricity price characteristics. These findings suggest that the maximisation of market value of electricity storage should be based on the optimisation of the dimensioning of the storage unit in specific economic and regulatory environment.

accessible via

[http://cadmus.eui.eu/dspace/bitstream/1814/13080/1/RSCAS\\_2010\\_02.pdf](http://cadmus.eui.eu/dspace/bitstream/1814/13080/1/RSCAS_2010_02.pdf)

**PETRELLA, Andrea and Sandro SAPIO (2010)**

*No PUN intended: A time series analysis of the Italian day-ahead electricity prices.*

Series at EUI RSCAS, 2010/03, Loyola De Palacio Program on Energy Policy.

**Abstract**

How do changes in the market architecture affect the dynamics of deregulated electricity prices? We investigate this issue in the context of the Italian Power Exchange (IPEX), using data on the daily average day-ahead price (PUN) between April 2004 and December 2008. Estimates of baseline time series models (ARMAX and ARMAX-EGARCH) and their forecasting performances suggest that the trend in natural gas prices, deterministic weekly patterns, the impact of perceived temperatures, persistence in conditional volatility and the inverse leverage effect are essential features of the PUN dynamics. We then augment the best-performing models with dummies that account for changes in the market architecture, such as the introduction of contracts for differences (CfDs) to support renewables, trading of white certificates for energy efficiency, and the demand-side liberalization. The findings show that changes in the market architecture have only affected the PUN volatility. Specifically, CfDs have mitigated volatility, while white certificates and demand liberalization have increased it. Moreover, after controlling for reforms the inverse leverage effect vanishes, and the persistence in volatility is lower than in the baseline estimates.

accessible via

[http://cadmus.eui.eu/dspace/bitstream/1814/13099/1/RSCAS\\_2010\\_03.pdf](http://cadmus.eui.eu/dspace/bitstream/1814/13099/1/RSCAS_2010_03.pdf)

**RIOUS, Vincent, Jean-Michel GLACHANT, and Philippe DESSANTE (2010)** *Transmission*

*Network Investment as an Anticipation Problem.*

Series at EUI RSCAS, 2010/04, Loyola De Palacio Program on Energy Policy.

**Abstract**

This paper proposes a probabilistic model to evaluate if a proactive TSO that anticipates the connection of new generators with short construction duration compared to the time needed to reinforce the network is more efficient than a reactive TSO that does not make any anticipation but that may then face higher congestion while the network is being reinforced. This evaluation is made in presence of anticipation costs both related to the study of the project of network investment and to the administrative procedures needed to obtain the building agreement. Our results in terms of social costs clearly show a limit of probability for the connection of generators beyond which a proactive TSO is more efficient than a reactive TSO. Evaluated on realistic cases of connection, this limit of probability is found quite low, which indicates that the proactive behaviour for a TSO shall generally be the optimal one.

accessible via

[http://cadmus.eui.eu/dspace/bitstream/1814/13081/1/RSCAS\\_2010\\_04.pdf](http://cadmus.eui.eu/dspace/bitstream/1814/13081/1/RSCAS_2010_04.pdf)

## Working Papers 2009

Here are the titles of the 22 Working papers issued by the Loyola de Palacio Chair in 2009. For the full text of working papers please visit <http://www.loyola-de-palacio-chair.eu/>

JOSKOW, Paul L

**RSCAS 2009/01: Challenges for Creating a Comprehensive National Electricity Policy**

Permanent link : <http://hdl.handle.net/1814/10618>

ELLERMAN, Denny

**RSCAS 2009/02 : The EU's Emissions Trading Scheme: A Proto-Type Global System?**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10619>

NEWBERY, David

**RSCAS 2009/03: Predicting Market Power in Wholesale Electricity Markets**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10620>

VON DER FEHR, Nils-Henrik M. and HANSEN, Petter Vegard

**RSCAS 2009/04: Electricity Retailing in Norway**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10621>

GLACHANT, Jean-Michel

**RSCAS 2009/5: Regulating Networks in the New Economy**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10622>

GLACHANT, Jean-Michel and DE HAUTECLOQUE, Adrien

**RSCAS 2009/6: Long-term Energy Supply Contracts in European Competition Policy: Fuzzy not Crazy**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10623>

PIEBALGS, Andris

**RSCAS 2009/11: How the European Union is preparing the "Third Industrial Revolution" with an innovative energy policy**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/10747>

RIOUS, Vincent, DESSANTE, Philippe & PEREZ, Yannick

**RSCAS 2009/14: Is combination of nodal pricing and average participation tariff the best solution to coordinate the location of power plants with lumpy transmission investments?**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/11027>

LÉVÊQUE, François, GLACHANT, Jean-Michel, SAGUAN, Marcelo & DE MUIZON, Gildas

**RSCAS 2009/15: How to rationalize the debate about 'EU Energy Third Package'? Revisiting criteria to compare electricity transmission organizations**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/11028>

MEADE, Richard & O'CONNOR, Seini

**RSCAS 2009/16: Comparison of Long-Term Contracts and Vertical Integration in Decentralised Electricity Markets**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/11029>

ROQUES, Fabien, HIROUX, Céline & SAGUAN, Marcelo

**RSCAS 2009/17: Optimal Wind Power Deployment in Europe - a Portfolio Approach**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/11030>

GREEN, Richard & VASILAKOS, Nicholas

**RSCAS 2009/19: Market behaviour with large amounts of intermittent generation**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/11233>

STOFT, Steven

**RSCAS 2009/35: Flexible Global Carbon Pricing: A Backward-Compatible Upgrade for the Kyoto Protocol**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12097>

MCRAE, Shaun D. & WOLAK, Frank A.

**RSCAS 2009/36: How Do Firms Exercise Unilateral Market Power? Evidence from a Bid-Based Wholesale Electricity Market**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12098>

RIOUS, Vincent

**RSCAS 2009/37: The Design of the Internal Energy Market in Relation to Energy Supply Security and Climate Change**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12099>

LÉVÊQUE, François, Glachant, Jean-Michel & al.

**RSCAS 2009/38: Academic Opinion of Economic Scholars on Champsaur Commission's Paper**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12100>

BUSHNELL, James & CHEN, Yihsu

**RSCAS 2009/48: Regulation, Allocation, and Leakage in Cap-and-Trade Markets for CO2**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12636>

AHNER, Nicole

**RSCAS 2009/58: Final Instance: World Trade Organization - Unilateral Trade Measures in EU Climate Change Legislation**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12782>

DE HAUTECLOCQUE, Adrien & RIOUS, Vincent

**RSCAS 2009/59: Reconsidering the Regulation of Merchant Transmission Investment in the Light of the Third Energy Package: The Role of Dominant Generators**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12793>

HANRETTY, Chris & KOOP, Christel

**RSCAS 2009/63: Comparing Regulatory Agencies. Report on the results of a worldwide survey**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/12877>

GUERCI, Eric & RASTEGAR, Mohammad Ali

**RSCAS 2009/69: From Uniform Auction to Discriminatory Auction: Assessment of the Restructuring Proposal for the Italian Electricity Day-Ahead Market**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/13011>

LÓPEZ-PEÑA, Álvaro, CENTENO, Efraim & BARQUÍN, Julián

**RSCAS 2009/67: Long term issues to be addressed by regulators in liberalised electricity systems: generation adequacy and indicative planning.**

Permanent link : <http://cadmus.eui.eu/dspace/handle/1814/13017>

## *Staff of the Loyola de Palacio Chair*

### **Research and energy policy**

**Jean-Michel Glachant** (Holder of the Chair; Full Professor, PhD in Economics)

**Yannick Perez** (Scientific Coordinator of the Chair, Associate Professor, PhD in Economics)

**Vincent Rioux** (Research Associate in charge of engineering studies, Associate Professor at Supelec, Degree in engineering and PhD in Economics)

**Adrien de Hauteclocque** (Research Associate in charge of legal studies, Jean Monnet Fellow, PhD in Law)

**Nicole Ahner** (Researcher Associate, PhD in Law)

### **Management**

**Annika Zorn** (Coordinator FSR Energy, PhD in Political and Social Sciences)

**Laura Burgassi** (FSR Project Manager, Degree in Modern languages)

**Angela Conte** (FSR Project Assistant, Degree in International Communication)

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