UNIVERSITÉ DE GENÈVE

**CENTRE UNIVERSITAIRE D'ÉTUDE
DES PROBLÈMES DE L'ÉNERGIE**

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**CYCLE DE FORMATION
"ÉNERGIE ET ENVIRONNEMENT"**

SÉMINAIRE

**Reflections on Sustainability and Energy Policy:
The Case Examples of the Electricity Markets in the EU and Spain**

Ignacio J. Pérez-Arriaga
Instituto de Investigación Tecnológica,
Universidad Pontificia Comillas, Madrid, Spain

<u>jeudi 30 mars 2006 à 17h.15</u>

Auditoire D 185 - Bâtiment D - Battelle
7, route de Drize
1227 Carouge

PROGRAMME DES PROCHAINS SÉMINAIRES :

Jeudi 6 avril 2006 **: Journée du CUEPE 2006 -** "Le froid pour l'alimentation et la santé: quels enjeux ?"

Jeudi 27 avril 2006 à 17h.15
Dématérialisation et développement, S. Erkman, Université de Lausanne
Jeudi 11 mai 2006 à 17h.15
Négociations sur les changements climatiques et ses implications pour les pays du Sud, D. Cavard, Université de Grenoble
Jeudi 1er juin 2006 à 17h.15
Agriculture et énergie, Orateur à confirmer
Jeudi 15 juin 2006 à 17h.15
Développement des énergies renouvelables, Orateur à confirmer

The Speaker

Ignacio J. Pérez-Arriaga is an Electrical Engineer from the Comillas University, Madrid, Spain, with a M.S. and Ph.D. degrees in electrical engineering from the MIT, Cambridge, USA. He is Director of the BP Chair on Sustainable Development and Full Professor of electrical engineering at Comillas University, as well as member of the European Energy Institute and Director of the Training Program for European Energy Regulators at the Florence School of Regulation within the European University in Florence. Mr Pérez-Arriaga is the author of the White Paper on the Spanish electricity sector, which has been delivered to the Spanish Government in July 2005; he has been principal researcher in more than 40 projects and has published more than 100 papers in national and international journals and conference proceedings. He has supervised 20 doctoral theses and has worked and lectured extensively on power system dynamic analysis, monitoring and diagnosis of power system devices and systems, intelligent computer design of industrial systems, planning and operation of electric generation and networks, and regulatory, economic and environmental aspects of the energy sector. In this latter topic he has been a consultant for governments, international institutions, industrial associations and utilities in more than 30 countries. His current research interests are centred on energy regulation, the design of regional electricity markets and energy sustainability.

The Conference

This presentation will examine the limits and challenges that sustainability imposes to our energy policy and how to address them the best. A sustainable energy model must include some essential features: lasting and dependable access to primary energy sources, adequate infrastructures to generate and transport the required amount of electricity reliably, tolerable environmental consequences, compatibility with an adequate economic development and equitable universal access to modern forms of energy supply.

There is a need to reverse the unsustainable trend of our energy model and to make it more sustainable at national, European and worldwide levels. This action must be quick, strong and capable of ensuring sustainability, while maintaining at the same time industry competitiveness, security of supply, and access to modern energy sources for the entire world population. A package of mechanisms has to be used to respond to this challenge and to achieve universal access to electricity.

However, current public policies are not strong enough, and they lack the internal consistency required to achieve such an ambitious objective. Recommendations to try to reverse this trend will be presented and discussed. The electricity sector in the EU and in Spain will be used as case examples.