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THINK Tank

Advising the European Commission on Energy Policy

THINK is a three-year project with two reports per semester. It is organized around a Scientific Council of 24 experts covering five dimensions of energy policy:

Science and Technology - Ronnie Belmans, William D'haeseleer, Ottmar Edenhofer, Eduardo de Oliveira Fernandes, Ignacio Perez-Arriaga, Olav Bolland

Market and Network Economics - Pantelis Capros, Nils-Henrik von der Fehr, Christian von Hirschhausen, David Newbery

Regulation - Matthias Finger, Jean-Michel Glachant, Peter Kaderjak, Pippo Ranci, Jorge Vasconcelos

Law - Dörte Fouquet, Leigh Hancher, François Lévêque, Marc van der Woude

Policy Implementation - Manfred Hafner, Thomas B. Johansson, Claude Mandil, Władysław Mielczarsky, Peter Mombaur

THINK responds to the European Commission's evolving needs on a semester basis. Each semester, two projects will go through the work process of the Think Tank, which includes:

- The **Expert Hearing** with the Industrial Council to test the robustness of the work (chaired by Ronnie Belmans);
- The **Scientific Council** with the multidisciplinary group of 24 experts (chaired by William D'haeseleer); and
- The **Public Consultation** to test the public acceptance of different policy options by involving the broader community (managed by Serge Galant).

Reports provide clear policy recommendations which are also summarized in policy briefs as well as blog contributions. There will be a book at the end of the project including the main results (edited by Ignacio Perez-Arriaga).

The research team is hosted in Florence. Permanent members include: Isabel Azevedo (Degree in physics/applied maths), Xian He (PhD in economics), Claudio Marcantonini (PhD in physics), Leonardo Meeus (PhD in engineering) and Sophia Rüster (PhD in economics), under the direction of Jean-Michel Glachant. Past and temporary members include: Luis Olmos, Erik Delarue, Siok Jen Liong, Martina Sartori, Jonas Egerer and Marcelo Saguan.

THINK Management

Project coordination: Jean-Michel Glachant and Leonardo Meeus.

Steering board: Ronnie Belmans, William D'haeseleer, Jean-Michel Glachant, Ignacio Perez-Arriaga.

Advisory board: Chaired by Pippo Ranci.

EC project officers: Sven Dammann and Norela Constantinescu.

Partner institutions include the European University Institute as a coordinator as well as University of Leuven, Comillas University of Madrid, Bocconi University, University of Budapest, Fondazione Eni Enrico Mattei, Institute of Communication and Computer Systems, Technical University of Lodz, Potsdam Institute for Climate Impact Research, University of Oslo, Berlin University of Technology, Ecole Polytechnique Fédérale Lausanne, Becker Büttner Held, Ricerca sul Sistema Elettrico SpA, University of Lund, University of Porto, and Technofi.

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THINK Projects

Project topics 1st semester

Topic 1:

“Public Support for the Financing of RD&D Activities in New Clean Energy Technologies”, led by David Newbery.

If the EU is to meet its 2050 climate objectives, the future energy mix will have to rely on a significantly increased share of low-carbon technologies. Substantial additional RD&D activities are required to achieve the ambitious target of limiting global warming to a maximum of 2° Celsius above pre-industrial levels and cut emissions by 80% or more for industrialized countries. However, an adequate portfolio of existing and new clean energy technologies will not develop spontaneously.

Topic 2:

“Smart Cities Initiative: How to Foster a Quick Transition Towards Local Sustainable Energy Systems”, led by Eduardo de Oliveira Fernandes.

Currently, about four out of five Europeans live and work in a city, with the share of energy use in cities being about the same. A global solution for climate change, even if achievable, would rely on the participation of these citizens so that it is essential to have policies at multiple levels, including at city level. Therefore, if the EU is to meet its energy and climate objectives, cities will need to become “smart”.

Project topics 2nd semester

Topic 3:

“Transition Toward a Low Carbon Energy System by 2050: What Role for the EU?”, led by Manfred Hafner.

The European Commission has announced to come out with a 2050 energy roadmap by the end of 2011. Various visions of the path to follow have been presented by stakeholders, while several Member States already started implementing policies to guide the transition. This report provides recommendations on the role of the EU to create European added value in this context.

Topic 4:

“Impact of Climate and Energy Policies on the Public Budget of EU Member States”, led by Pippo Ranci.

The transition to a low-carbon energy system will have a substantial impact on the fiscal equilibrium affecting both sides of a country’s state budget, i.e. revenues (via e.g. changes in taxes) as well as expenditures (via e.g. transfer payments). We investigate the impact of climate policy instruments in 2020 taking into account differences among MS in terms of economic strength, industry and energy sector structure, and budget fragility.

Project topics 3rd semester

Topic 5:

“Offshore grids: Towards a least regret EU policy”, led by François Lévêque.

Submarine transmission networks have been envisioned under the North, Baltic and the Mediterranean seas connecting several countries and a huge fleet of renewable power plants. In this report, we compare the economics of offshore and onshore transmission investments and analyze offshore grid visions and studies to see whether the economics of such a grid have already been demonstrated. Recommendations for a least regret EU policy regarding offshore grids are provided.

Topic 6:

“EU involvement in electricity and natural gas grid tariffication”, led by Christian von Hirschhausen.

Currently, the EU involvement in the regulation of TSOs and grid tariffication is limited, which results in a strong heterogeneity regarding regulatory designs and tariff structures. This report investigates the need for harmonization given the challenges that result from a move towards the decarbonization of the economy.

