

Energy Transition: A Multifaceted Challenge for Europe

2nd Symposium: How can we finance the EU energy transition towards a low-carbon economy?

- Report -

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Egmont – The Royal Institute for International Relations and the Development Group organized a symposium entitled ‘How can we finance the EU energy transition towards a low-carbon economy?’ on the 11th of June 2014. The symposium took place within the framework of a series of events related to the multifaceted challenges of the EU energy transition towards a low-carbon economy which have been held in Brussels since 2011. It was the second of four events in the 2014 series.

Keynote address: What is the role of finance in the transition towards a low-carbon economy?

The keynote address was provided by Juan Alario, associate director of the European Investment Bank’s (EIB) energy department. He began by pointing out that the current context is not favourable to low-carbon technologies. This is particularly due to the low coal and carbon prices, and the uncertainty over policy and regulatory developments. However, the context seems favourable for investments in energy efficiency despite a low carbon price, provided that transaction costs are low. He also pointed out that renewable energy investments have substantially declined since 2010/11. However, energy infrastructure investment needs are smaller than initially expected, as EU energy demand has declined since the start of the economic crisis. 2020 investment needs are mainly related to the electricity sector with €50 billion per year (bn/yr) for renewable energy sources (RES), €60 bn/yr for energy networks, €25 bn/yr for the replacement of ageing power stations and €85 bn/yr for energy efficiency (including €60 bn/yr for buildings alone). Energy efficiency thus has considerable potential to expand, but policy actions such as increasing availability of public funds, developing financial instruments and creating examples of good practice are needed to develop potential investments.



Today, EU energy investments come mainly from private financing. Investments in renewables are mostly financed via corporate financing and project financing, while network investments are mostly financed via corporate financing and very seldom via project financing. There is limited information on the financing of energy efficiency but it is mostly based on self-financing and public subsidies. Finally, Mr Alario explained various issues concerning the financing of future investments, including the lack of certainty on the developments of energy and climate policies in some countries; constrained corporate finance; limited public budgets; new banking rules that might make long-term financing more expensive and less available, and the mobilization of relatively new players such as households, Energy Service Companies (ESCOs) and energy companies to invest in energy efficiency.

Session 1: Why is it currently difficult to invest both public and private funds in the European energy transition?



Michel Matheu, head of EU strategy in the public affairs division at Electricité de France (EDF), opened the first session by showing that power generation and networks will require €500 billion (€340 billion in RES generation and €160 billion in conventional generation) and €300 billion respectively. A stable framework is needed to give robust signals to industry and encourage this investment. This framework must enable a well-functioning market, a clear signal for technology choice and the recovery of

fixed costs. However, the current situation is far removed from this target. It is difficult to break the vicious circle generated by the recession and the oversupply of mandated RES, which led to low energy and carbon prices. In turn, this has prevented an investment signal from developing and has handed over advantages to high-carbon technologies. This situation is mainly due to three problems. The first problem is that wholesale prices are below cost-recovery levels of the cheapest conventional technology. The second problem is that the Emissions Trading Scheme (ETS) faces a deep crisis which might last for some time, because the scheme needs to be thoroughly revised. The third problem is that energy-only markets cannot be the only drivers for investments to be profitable. Therefore, Mr Matheu recommends the adoption of a framework conducive to investment, which would include ETS reform, RES volume control, flexible governance and well-designed capacity markets.

Afterwards, Beate Raabe, secretary general at Eurogas, began by recalling that the financial crisis had left companies and state coffers with less money to spend and more complicated access to finance. Then she explained the current political uncertainty and regulatory risk for energy suppliers. This uncertainty results from the fact that we still don't know what the targets and the instruments of the 2030 framework will be? Under what conditions will shale gas be allowed? What will the future energy mix be? Will Carbon Capture and Storage (CCS) be rolled out? And how will the various issues of the internal energy market such as price regulation, capacity mechanisms and renewable support schemes be addressed? According to her, the market distortions generated by price regulation and subsidies should be removed, as most of the investment will need to come from the private sector. Moreover, investment should be based on a credible carbon price rather than on subsidies, implying a reform of the ETS before 2020. For the non ETS-energy users, particularly households, incentives should be created that favour behaviour changes. Finally, if countries such as Norway and Algeria are expected to deliver more gas to Europe, they need to be sure that the gas market will remain attractive. Therefore a policy framework where gas, along with other low-carbon solutions, can compete on a level playing field must be created.



Next, Jayesh Parmar, partner in energy advisory services at Baringa, began by reminding us that the energy revolution represents huge opportunities, and there is no shortage of money. However, the very large utilities are more likely to dispose of their assets than to invest in meeting energy policy

and security-of-supply goals. The new investors are thus 'mid-tier' players, benefiting from the opportunity posed by the need for new investment. Then he explained that in order to balance risk and return, the risk for infrastructure investments must be reduced and merchant investments must own responsibility for the remaining risks. Finally, he stressed that policymakers have a list of simple things to do, namely developing policy frameworks that are clear, simple and sustainable, focusing on market principles and letting competition work, and favouring long-term solutions. However, the list of things to avoid is extensive, including the creation of risk or the perception of risk due to policy uncertainty, reverting to centralized and national solutions, picking winners, and falling back on short-term solutions. More clear and simple policy frameworks will lead to the portfolio being rebalanced by existing investors and, potentially, to the arrival of new investors.

Lastly, as discussant, Mechthild Wörsdörfer, director for energy policy at the EC Directorate General for Energy, agreed with most of things that had been said during the presentations, particularly regarding the current regulatory uncertainty and the need to reform the ETS. In order to address this uncertainty, she explained that the Commission has tried to propose a credible 2030 energy and climate framework that focuses on competitiveness and security of supply. Now it is up to Member States to discuss this framework before adopting it by October. Then, in order to reform the EU ETS, she explained that the Commission had proposed a stability reserve. However, regarding the challenge of adopting the backloading measure, she foresees that it will be difficult to reform the scheme. To a question on the uncertainty that a stability reserve might create for investors, she answered that sometimes it was better to address uncertainty with an instrument that might create a lower degree of uncertainty than to make no changes and continue in a high state of uncertainty. Finally, she stressed that although public funds such as structural funds can help, most of the necessary financing will come from private funds.



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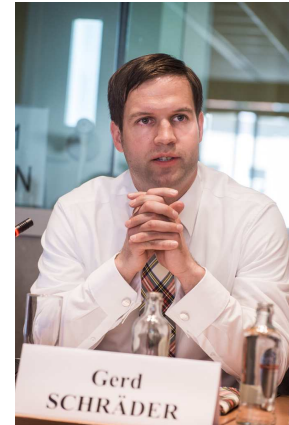
Session 2: How to promote the necessary investment in the European energy transition?



Dr Dominik Thumfart, head of infrastructure and energy on the Capital Markets and Treasury Services platform in the Global Markets division at Deutsche Bank, began the second session by making five key remarks on the financing sector. Firstly, he explained that energy infrastructure is made up of long-lived assets which need long-term financing, including project financing, provided that key parameters are met. Project financing consists in financing a project based on cash flows. In order to have visibility on your long-term financing, you need contracted cash flows such as contractual payments, feed-in tariffs or power purchase agreements. In addition, project financing also requires environmental and land permits; commercially proven technology; credible conception, procurement and construction contracts; somebody capable of operating the plan, and credible sponsors. Secondly, he stressed that there are substantial pools of capital to invest in the energy transition, including equity funds, pension funds and sovereign wealth funds. Thirdly, he added that there are also a lot of debts to leverage equity. For mobilizing this investment capital, there are both public sector banks and national investment banks, as well as commercial lenders, pension funds and insurance companies. Fourthly, there is a growing project bonds market in the EU to finance the energy transition. Just like project financing, project bonds need visibility on cash flows. Lastly, he explained that we have witnessed a certain renaissance of the public equity market

over the last year. He concluded by stating that there was a lot of capital out there to finance the energy transition. The fact is that there is less risk in financing clean energy such as solar or wind, which are free of charge, than fossil fuels, where you need to buy fuel sources without visibility on prices over the long term.

Following Dr Thumfart's presentation, Gerd Schröder, manager of regulatory affairs at RWE Innogy GmbH, stressed that the transformation of the European energy sector will require unprecedented investment. He explained that the growth of RES is changing the shape of the electricity system in Europe. Wholesale market prices are far removed from the full costs of any generation source. It is thus clear that the traditional utility balance-sheet financing approach will not suffice to get a return on investment. RWE Innogy is therefore developing a competitive renewable energy expertise on the basis of partnering, services and green products, using technologies such as offshore wind, onshore wind, hydro- and other new technologies. To demonstrate that RWE Innogy is a trusted partner for the European energy transition, he selected three particular case studies – an equity strategy partnership for an offshore wind power plant; an equity financial partnership for an onshore wind farm, and a non-recourse debt partnership for another offshore wind farm. Then he stressed that the recent changes in the national regulatory regimes had increasingly led to less reliable conditions for the development of RES, delaying projects and endangering investments. Finally, he explained that investors are expecting a long-term stable investment climate with no retroactive changes in legislation and no regulatory-driven boom and bust cycles.



Afterwards, Karim Dahou, executive manager at the OECD Directorate for Financial and Enterprise Affairs, presented the OECD's work on clean energy investment. He started by outlining the barriers to clean energy infrastructure investment – either traditional investment barriers or those more specifically faced by clean energy, including low carbon pricing, lack of predictable policy environment, and high financing costs. Then he stressed two priorities to unlock private investment. First, domestic frameworks for investment

in clean energy infrastructure must be improved.¹ This implies key issues for policymakers to consider, including the application of investment principles such as non-discriminatory treatment of international investment; intellectual property protection and transparency; the improvement of the coherence and the transparency of the broad system of investment incentives and disincentives; enhancing co-ordination and improving governance across and within government levels, as well as strengthening financial markets and facilitating access to long-term finance. A further key barrier to achieving the energy transition is a fragmented approach to climate-related policies. Policies should be aligned on the basis of a multi-sector and multi-ministerial approach for a low-carbon transition. Second, it is essential to address barriers to international trade and investment. Since the financial crisis, several governments have supported and protected domestic solar photovoltaic and wind turbine manufacturers. Such measures may hinder the optimization of green value chains by raising the cost of inputs and reducing demand for downstream activities.

¹ The OECD provided two reports to help governments in this regard: 1) OECD, *Policy Guidance for Investment In Clean Energy Infrastructure*, 2) OECD, new horizontal project, *Aligning Policies for a Low-Carbon Transition*.



Finally, as discussant, Tudor Constantinescu, principal advisor to the Director-General at the EC Directorate General for Energy, underlined the five main challenges. Firstly, energy security is essential given the increasing energy dependency of the EU and the growing global energy demand, which will create more competition for resources. Secondly, high EU energy prices require a particular focus on the issue of competitiveness. Thirdly, the global challenge of decarbonisation requires an understanding of at what level – local, national, regional or global – the issue can be best solved. Fourthly, the technology challenge is particularly important, as the energy sector is changing rapidly, while becoming increasingly complex. Lastly, the challenge of energy efficiency is essential. It will consist in convincing the millions of potential investors to better manage their energy consumption in order to have a more cost-effective energy demand. Finally, he stressed that the energy policy framework must not only be predictable and coherent but also flexible in order to adapt to new developments and innovative technologies in the energy landscape.



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