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Financing and delivering resilient infrastructure in a climate constrained world

Good evening. First I want to thank to ECEEE hosts for inviting me to speak this evening at this wonderful location. My name is Ingrid Holmes and I am an associate director at E3G, a small NGO focused on a big mission, which is to accelerate the transition to a sustainable economy and avoid dangerous climate change. I am delighted to have this opportunity to address you on the topic of “Financing and delivering resilient infrastructure in a climate constrained world”.

As energy efficiency officianardos you will perhaps be concerned that energy efficiency features nowhere in the title but let me assure you I am fully of the belief that efficiency is absolutely key to achieving that objective.

This sentiment picks up on the key messages of the New Climate Economy Report, published last year and which set out in an authoritative way how delivering investment to drive economic growth can be reconciled with the need to tackle climate change. But to do this, economic decision-makers need to be smarter about the investment choices made on infrastructure and efforts need to be strengthened to deliver resource efficiency – which of course includes energy efficiency.

But how can this be achieved? And what exactly do I mean by ‘financing and delivering resilient infrastructure’. Let me explain.

As we are all very aware, Europe is facing a growth and investment crisis. In 2014, total investment was 15% (€430 billion) below 2007
levels; in the hardest-hit member states, the decline in investment has been even more dramatic, with the shortfall ranging from 25% to over 60%. Europe also needs to invest around €2.5 trillion to deliver an Energy Union that is in line with the EU’s 2030 climate and energy goals.

In a separate initiative, President Juncker’s Investment Plan is focused on kick-starting investment and job creation. It has as its centrepiece the European Fund for Strategic Investments (EFSI), essentially a risk-sharing facility that seeks to promote at least €315 billion of new private sector investment in the EU economy.

But in working to deliver a return to prosperity in Europe (quite the right aim), there is a risk that a strategy of ‘growth at any cost’ is pursued. This would be a mistake. Particularly given the pressing challenges with securing sufficient investment to deliver a secure and low carbon Energy Union.

So in a nutshell, the EU is facing its own ‘New Climate Economy’ moment. Which way will it go? A lot will depend on how Governments make their choices around the Energy Union – and whether supply side and demand side solutions, including demand response and energy efficiency, are considered on an equal footing. Put it another way, will the idea of “Efficiency First” really be put into action?

This is the really critical issue. Because without a sufficient focus on driving forward scaled energy efficiency investment, the costs of delivering a secure and low carbon energy union will be pushed up. This puts at risk continued public support for action of climate change and leaves uncaptured all the upsides that come from improved air quality, energy security, distributed job creation, health
benefits, reduction in fuel poverty and so on. Failure to properly think through the role energy efficiency could and should play in our future energy system also risks us investing in supply side assets that are not fully utilised and so are retired before the end of their productive lives. Wasting money.

As an example, we know energy demand in the EU is falling and is now at the levels not seen since 1990. Yet in an analysis that E3G did on the allocation of funding through the Connecting Europe Facility (which funds cross-border energy infrastructure) we found that gas infrastructure projects are currently evaluated against scenarios that assume around 70% higher gas demand in 2030 than would be the case if the energy efficiency target is met.

Getting the economic modelling right by properly integrating demand reduction would be a big step forward in ensuring that the smart and resilient infrastructure choices are made that can deliver climate-friendly growth along the lines of that envisaged in the ‘New Climate Economy’ Report.

But turning this situation around and really making energy efficiency the first fuel will mean taking the discussion about delivering energy efficiency at scale out of the energy policy debate and into the mainstream discussion on returning the economy to growth. There are two reasons for this:

First, at the moment energy efficiency is largely seen by economic decision-makers as a subsector of a subsector of the economy. But it isn’t. It requires a series of small but important engineering interventions across the whole of the economy. It is highly innovative and highly distributed work. And in fact the amount of energy efficiency investment needed dwarfs that on the supply side. While individual investments are quite small – mostly in the range of
EUR1000s to EUR100,000s – in aggregate they add up to a lot. In the UK it is estimated that £127bn is need to refurbish the building stock to 2035, including around £54bn to help the poorer members of society who would never be able to afford to do retrofits themselves.

Second, as the EEFIG report has authoritatively demonstrated, there are a huge range of market, economic, institutional and financial reforms needed to unlock investment at the scale needed to really realise the potential of energy efficiency to help deliver a secure, resilient and inclusive economy. Many of these reforms have nothing to do with energy policy and everything to do with economic decision-making. At a European level they include:

**Market reforms** such as creating equal opportunities for demand side power sector investment as part of the third IEM package; creating a single market for energy efficient building goods and services by harmonising standards and break down cartel behaviour among suppliers; delivering more supply side efficiency through revising ETS and IED Directives to require to use of BAT; continuing to widen the reach of the Ecodesign Policy.

**Economic reforms include** relaxing rules on debt and deficit restrictions to allow public spending on energy efficiency as a means of boosting growth; Embedding long-term economic thinking by adding to the European Semester Process stress testing of the resilience of EU economies under resource scarce scenarios; Revising State Aid rules to create level playing field for energy efficiency investment compared to renewables and infrastructure; and fixing the discount rate.

**Institutional reforms:** EU buildings observatory and cost data reporting; Standardising the methodology for calculating energy savings across MS; A new DG focused on Resource Efficiency to
mainstream resource smart thinking across the Commission;
Incorporate scenario-based resource scarcity stress testing into Impact Assessments; Arms Length National Energy Efficiency Agencies – with mandate, powers and finance to deliver

**Financial reforms** such as ensuring the Capital Markets Union delivers capital adequacy rules for pension funds and insurance companies that fairly reflect the risks energy efficiency-related investments; developing a common set of procedures and standards for underwriting for debt and equity EE investments including a ratings system and boilerplate documentation; and mainstreaming of resource efficiency (including energy efficiency) into MFF.

**It’s a long list. How do we go about achieving it?**

In the UK we have been developing a new way of engaging with economic decision-makers. We have done this by reframing energy efficiency as an infrastructure priority. First, we undertook a robust analysis of what the investment needs were in the UK to take everyone up to an EPC C standard by 2035. We then looked at income levels to assess where financial help would be needed to enable everyone to participate in the roll out of a national energy efficiency programme and finally we determined what that meant in terms of public and private investment needs. The answer: £127bn with **£54bn of public funds**, pretty much similar amounts to what the UK government will be spending on its Road Strategy and on the High Speed Rail 2 Project. So next we worked with an economic consultancy to adapt the methodology used by Government to undertake a value of money assessment of major infrastructure projects. This is the method by which the Government determines whether funding allocated to projects will deliver a return on investment for the country (i.e. is it worth doing). What we found
was energy efficiency out-performed the infrastructure investments the government has committed to quite substantially – delivering a return on funds deployed within the lifetime of a single parliament – providing more jobs and with a bigger impact on GDP than other projects the government has committed to.

Our hope is that by using this type of economic analysis we can get economic decision-makers to take notice and create the political will to take energy efficiency to the next level and truly unlock its power to be the first fuel. The political will of the right people – those allocating the capital expenditure budgets to infrastructure (Ministries of Finance and Economics) and who also hold the key to the range of structural reforms we need to see – will be critical to achieving this. It is precisely this audience this approach is designed to engage. But it also helps build a broad consensus that energy efficiency should be a key government infrastructure priority because by taking the debate on energy efficiency financing out of the debate over how the operational budget for government is spent (and any discussion on public funding to support scaled up effort competes with education, culture, health etc), we create the opportunity to build a wide alliance of supporters for energy efficiency that goes beyond the usual suspects. In the UK the EBR campaign now has over 100 members drawn from children’s, old people’s and health charities as well as environmental and fuel poverty campaigners, trade unions, energy and technology companies and investors.

In this way we can both demonstrate large scale energy efficiency programmes are necessary and affordable and that within society there is broad support for considering this type of investment among a range of other infrastructure choices.
When we have that, we will finally have the space and recognition needed for all the detailed policy, technical and business innovation work being done in Europe, but internationally too, on how we ratchet up the efficiency with which we use energy across our economy, provide the kind of energy services people want and need, capture the health and other benefits of undertaking this type of investment. And deliver an economy that really is sustainable and inclusive.

To those who say isn’t it too much effort I would say: the EU can’t compete on being the biggest .... or the cheapest. But we can compete on being the smartest. In a more crowded, more unstable and more resource scarce world, progress on efficiency over the coming decades will be one of the biggest indicators of the forward success of the European project. We may never have a better chance than now to start the reform process with a new Commission in place, the Efficiency First idea firmly embedded and infrastructure investment high on the agenda not only in the EU but the G20 too. But we need to start the reform process pretty soon if we are enable energy efficiency to play the central role needed to deliver resilient infrastructure fit to continue operating throughout its productive life as carbon targets tighten.