



## Proposal for boosting mission-oriented investment in energy and energy-intensive sectors

Progressive Economy 31<sup>st</sup> May 2016,

*By Michael Grubb, University College London*

### Strategic investment in energy sector transition and integration - funding

These proposals draw upon the notes by both Mariana Mazzucato and Stephany Griffith-Jones, taking the view that practical progress will (a) involve specific sectoral applications, with a clear positive narrative on the 'mission' to be achieved, and (b) ideally build upon existing initiatives or acknowledged sectoral challenges. The applications I consider apply their basic principles to the energy sector, and energy-intensive materials sectors.

#### i) Financing energy transition: infrastructure and buildings stock

**Challenge & Opportunity.** The energy transition is projected to involve several hundred billion Euros of investment. A modest (but important) part of this is interconnection, for which the Connecting Europe facility currently has €5.85bn available to 2020; the biggest expenditures would be on 'clean and smart' energy generation and associated infrastructure domestically. One concern is about the impact of such expenditure on poorer households, typically living in less energy-efficient building stock. Improving their energy efficiency involves high employment in the construction sector and helps to lower energy bills, but adds further to the challenge of funding the investment required.

There is a clear and compelling mission at stake: research suggests strongly that a combination of energy-supply-side investment along with energy efficiency can not only lower CO<sub>2</sub> emissions but keep energy *bills* constant, and ultimately results in

more productive and economically efficient energy systems. But for multiple reasons the market cannot deliver these investments without strong public direction.

***Macroeconomic linkages.*** Enhancing energy investment at a time of weak economic growth and falling energy prices is an ideal counter-cyclical policy. If the EU were to consider exemptions for productive infrastructure from fiscal deficit targets (as proposed by Griffith-Jones) there would seem to be a strong case in particular for supply-side investments (eg. interconnectors and renewables) to qualify. There would be a clear case for EIB to play a significant role in delivery.

***Funding and incentives.*** Whether or not this route was chosen, funding would remain an issue, and even more so for the construction / buildings retrofit sector. One obvious funding source would be to strengthen the EU emissions trading system (EU ETS). Its revenue potential was greatly enhanced by the move to full auctioning in the power sector since 2013, as research at the time estimated:<sup>1</sup>

i) .. **the current structure and the official projections** would raise **€150-190bn** across the EU out to 2020. This would rise to **€200-310bn** should the EU move to a 30% target (with 34% EU ETS cap relative to 2005). **Germany** would receive the highest proportion of auction revenue by far (**€37-46bn** under 20%), even after redistribution of 12% of auction revenue to MS with lower GDP per capita .. **Italy, Poland, Spain and the UK** would each accrue over **€10bn** in auction revenue from the power sector alone.

In the event, multiple factors led to a price crash, which (along with deferment of some auctioning), has cut revenues to a small fraction of this - and also made ETS irrelevant to investment incentives.

---

<sup>1</sup> <http://climatestrategies.org/wp-content/uploads/2011/05/cs-revenues-phaseiii-final.pdf>

The Commission proposal to address this (the Market Stability Reserve) is potentially a step forward but has not significantly raised the price *and has not been conceived as an instrument of strategic investment*. The *Progressive Economy* initiative should consider two proposals to ensure that carbon pricing in Europe supports investment choices compatible with long-term EU objectives, on both growth and climate change, thus enhancing overall investment in energy, buildings and materials industries.

**Proposal 1:** EU ETS reform (due to be decided by the EP and Council under QMV this autumn) should be recast as a tool of strategic investment for (a) greater and more targeted use of revenues as a source for investment including in energy interconnection and buildings energy efficiency,<sup>2</sup> and (b) stabilising the system as a source for leveraging and crowding in private sector, particularly institutional investors on the basis of a rising carbon price. Removing surplus allowances would be one essential element.<sup>3</sup>

*Institutional alternates:* The UK and now France have set a ‘floor price’ for carbon emissions at several times the market price of the EU ETS. This underlines the seriousness with which some Member States are beginning to treat this: if the EU ETS is not strengthened (as an EU measure), we may see a ‘renationalisation’ of climate efforts which in the long run would be far less effective than an adequately reformed ETS. As a last resort, a similar 9-state Enhanced Cooperation measure (eg. by Eurozone countries) could help to unleash investment in Eurozone countries and drive pressure for full ETS reform.

---

<sup>2</sup> This could include a role for EIB expenditures and developments building upon the EIB Project Bonds

<sup>3</sup> The accumulated surplus is now widely projected to last through the 2020s. There are various specific options. One important element could be that the Paris Agreement meets the conditions the EU originally set for strengthening its 2020 target from 20% to 30% (and recommits the EU to deeper subsequent) reductions; this provides a reasonable justification for removing much of the accumulated surplus of emission allowances.



**Proposal 2:** Address concerns about the dire state of energy-intensive industries by including consumption of carbon intensive materials in EU ETS. This would recover lost revenues from the free allowances given to producers (to avoid ‘carbon leakage’ abroad) and create long-term clarity on carbon leakage protection to strengthen the European investment framework. Reducing the controversy about leakage / free allowance volumes and injecting recycling of revenues should create the opportunity for public - private dialogue on the design and funding of innovation and materials efficiency, helping existing companies (notably, in metals and construction materials) to move downstream to extract higher value-added from innovative materials and applications.

This proposal has now been developed in detail (including economic, legal and administrative aspects) by a joint industry-environment-research consortium working over several years.<sup>4</sup> It avoids the problem of ‘carbon leakage’ by placing the carbon charge on consumption, irrespective of where the material (eg. steel or cement) was made. It enables a targeted fund to be applied to industrial innovation at a scale which is impossible for the private companies alone to pursue.<sup>5</sup> It thus fits Mariana Mazzucato’s criteria for *Mission-oriented* investment exceptionally well. It could also draw on the existing structures for ‘new entrant reserve’ funds under the EU ETS.

Together, the proposals would also facilitate a large investment programme, without deficit increases, and with the second (the consumption charge) avoiding the most obvious concern and source of opposition to the first, namely industrial opposition to any strengthening of the EU ETS.

---

<sup>4</sup> For summary see <http://climatestrategies.org/wp-content/uploads/2015/05/Policy-Brief-IoC-of-Carbon-Intensive-Commodities1.pdf>. This measure could be legally grounded in Article 10b of the EU ETS Directive.

<sup>5</sup> Collaborative investment by the companies themselves would be illegal for anti-trust reasons, as well as almost impossible to coordinate without a public lead. The ultra-low-carbon-steel program, for example, never proceeded from concept developments (a few tens of €m), to demonstration, costing hundreds of €millions.