

## Energy Subsidies and the Flawed Dominance of Economics in the UK Energy Sector Raphael J. Heffron

Issues in the energy sector are now dominant topics across the full spectrum of society. In the UK, it is already a key election issue for leading political parties. However, one area that has so far received little attention in the energy sector is the matter of subsidies. Using the UK as an example it is evident that energy subsidies are an important issue, and that these subsidies will directly affect the development of policy on climate change and energy security.

There are many maladies in the energy sector. Preeminent among these is the unacknowledged reliance on the same economic thinking, the Chicago neoclassical economic perspective, that has created the current situation. This economic viewpoint and its drive for competition have led to the current malaise within many sectors of the economy. In several industries, it has created an oligopolistic market where the market share of the leading three to six firms is greater than 90 per cent including in electricity retail, banking retail, broadband, coffee shop, confectionary and supermarkets [1].

With these markets dominated by so few firms they become almost too big to fail. The financial crisis should have been witness to some big banks failing, particularly in the financial sector in the UK. Instead, as Andy Haldane, Executive Director of Financial Stability at the Bank of England stated, the UK public transferred  $\pounds 50$  billion annually to the top-five banks in subsidies over the financial crisis period of 2007-2009 [2]. Still, the philosophical underpinnings of mainstream economic policy have not advanced. Perhaps it is no coincidence that Paul Krugman, a Nobel Laureate in Economics, argued that it is possibly inevitable that the current economic crisis will continue for some decades [3].

Major new initiatives attempting to change our thinking on economics are beginning but at a very slow pace. The Institute for New Economic Thinking (INET), one institution at the forefront of this, held a seminal conference in 2010 at the University of Cambridge [4]. There George Soros (one of the principal funders of INET) stated that after past economic crises and particularly because of the current one it is necessary to change our economic thinking [5].

The electricity sector, however, requires a radical shift in its economic philosophical underpinnings. There needs to be a break from the dominance of the Chicago neo-classical view and away from economics being at the centre of the development of the electricity sector. Energy security and environmental goals are far more important to the long-term future of a society than economic competition. An economic based electricity sector in the UK has resulted in a sector that consists of high electricity prices, low investment in research and development, limited development of new infrastructure, and low levels of competition. That is not to say that economics does not have a function in terms of policy development but instead that it is the narrow definition and focus of competition that is the problem. A broader approach to policy development in the electricity sector has to be developed in order to achieve energy security and environmental goals.

The UK government needs to create long-term energy policy. In particular, new energy infrastructure should meet a national strategic aim, be it climate change mitigation, industrial policy, and/or future energy security. In this context, it is important to examine what energy policies are achievable and deliverable. A move away from the short-termism that continues to dominate the electricity sector and those institutions that provide private finance for new energy infrastructure projects is required. Two options presented here aim to do just this. These options also follow the aims of Nordhaus in developing new initiatives in the energy sector that many countries could apply [6].

The first of these options is to separate the electricity market [7]. The aim is to apportion a fixed percentage of the electricity generation of a nation between the various forms of energy technology (or sources). Until a designated percentage was met, there would be clear government support for that energy source. In addition, over time the percentages could then be adjusted up for low carbon energy sources, and down for fossil fuel to meet more environmental goals. This new electricity market would mean that vastly different technologies are not competing against each other. For example, if wind, nuclear energy, coal and gas were given 25% market share each, then coal technology would compete against coal technology for its 25%, with more efficient (and potentially more environmentally-friendly) coal plants replacing those which are less efficient.

The second option is to revise the subsidy support mechanism given to the fossil fuel and low carbon energy sectors. The aim should be to ensure low carbon energy sources receive, at the very least, the same subsidy support as fossil fuel energy sources. In the long term in the UK this could aid energy security, the environment and could also help to develop low carbon energy expertise, energy technology and supply chains.

Currently, there is a significant difference between the subsidies the fossil fuel and low carbon energy sources receive. The fossil fuel industry (notably, oil and gas) benefits from subsidies at the initial stages of construction for production. This is in contrast to low carbon energy sources that for the most part receive subsidies only when electricity is produced.

The subsidies given to the oil and gas sector have not yet been properly calculated, as highlighted by the Global Studies Initiative [8]. One method of achieving this is to force energy companies to reveal how much they benefit as a result of tax reliefs in the oil and gas sector. This could be implemented as part of the notes to the accounts included in the annual company accounts. For example, International Accounting Standard 20 (IAS 20) holds that companies in energy sector must report any government grants they receive [9]. This should be extended to include the tax relief that they receive. In addition this policy change would be easy to implement through the development of IAS 20 which could be legislated for in national company and tax law.

A brief examination of the tax reliefs that oil and gas production companies receive is revealing. Tax reliefs are given for nearly every expense related to production and exploration, for both planned, successful and unsuccessful projects. An overview is outlined in a document from HM Revenue and Customs titled A Guide to UK and UK Continental Shelf Life: Oil and Gas Taxation 2008 [10]. In addition, UK taxpayers will also pay for decommissioning in the oil and gas sector which will now receive tax incentives on decommissioning costs, estimated at  $f_{,30}$  billion over the next 15 years; this tax relief was granted in 2012 [11]. Part of the purpose of tax legislation in the area is stated as to "allow a project to rapidly recover its costs" [12]. Why are low-carbon energy sources not treated the same way and allowed to recover costs of a project rapidly?

Expanding the IAS 20 to include the amount of tax relief availed of for oil and gas production will have two benefits. First, it would permit us to properly value the cost of oil and gas and to demonstrate that low carbon energy sources are not that costly to build and deserve more favourable cost comparisons with fossil fuels; certainly in the absence of any carbon tax. Second, governments could develop legislation with the same purpose for the low carbon energy sector, i.e. legislation that would allow low carbon energy projects to 'rapidly recover their costs'. Then finance for low carbon energy projects would be readily available.

In developing a sustainable economy in the UK, a new direction is needed in many economic sectors. For the electricity sector, focusing on energy security and the environment can achieve stability in electricity prices and sustainable electricity supplies for future generations. The mainstream economic approach to the electricity sector needs to be revised, and two new approaches have been outlined here. The first focuses on restructuring the electricity market, and the second on achieving parity for low carbon energy sources in terms of subsidies received.

Energy subsidies have the potential to dominate the debate in the energy sector in 2014. A UK Government Committee, the Environmental Audit Committee, has

just released a report on energy subsidies and has called for more clarity on the issue [13]. The effect of this report on the Energy Bill as it is continues its development in the House of Commons will be interesting for the future of the energy sector.

## References

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