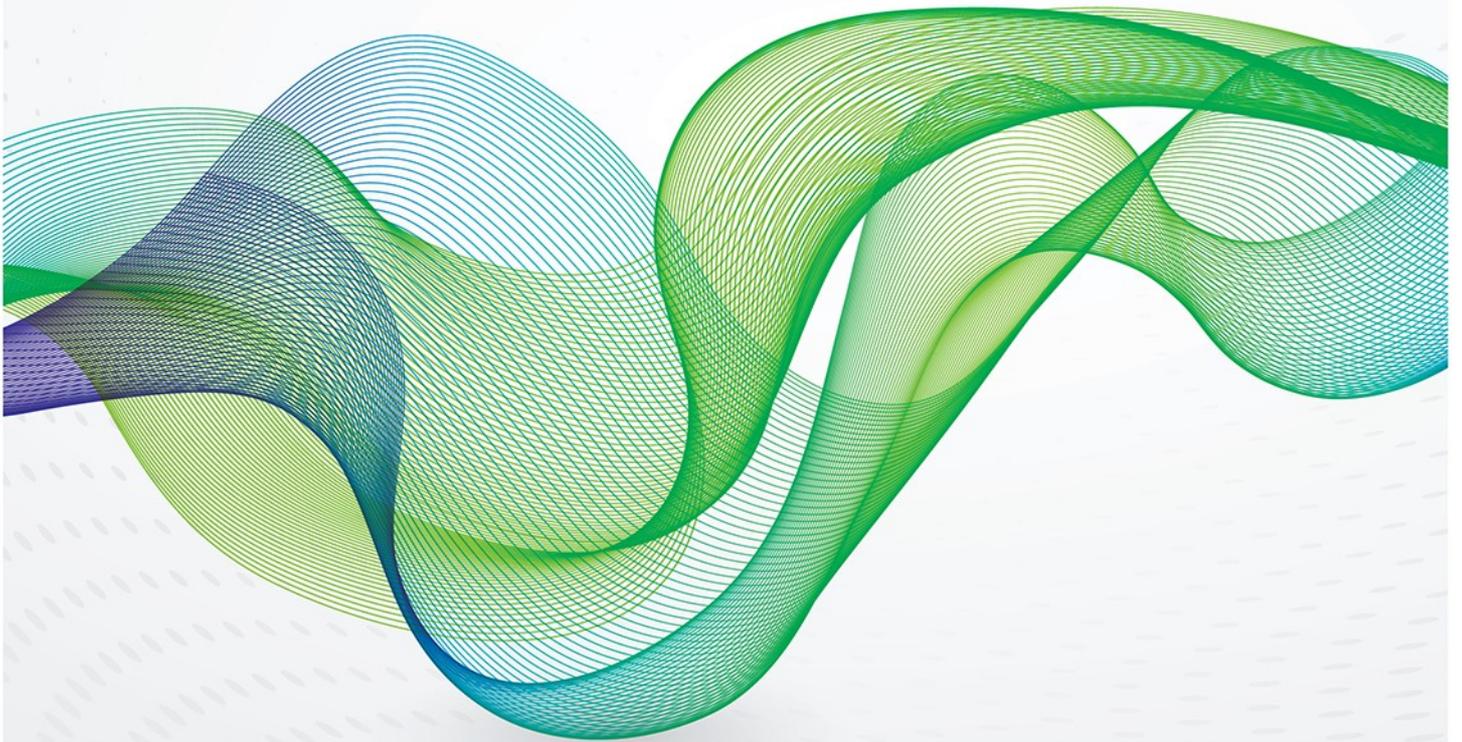


December 2013

Energy Policy for an Independent Scotland:

Continuity or Change?





Introduction

In its White Paper on *Scotland's Future*¹ the Scottish Government sets out a blueprint for independence, treading a delicate line between the themes of continuity and change, in relation to energy policy, as in other areas. The attractions of both themes are clear: continuity is important to avoid creating uncertainty and fears about the future. This is likely to matter to voters but may also be particularly relevant in the energy sector, where very significant amounts of investment will be needed in coming years – in the oil and gas sectors, to produce the revenues on which an independent Scotland's finances will so critically depend; and in the electricity sector, to meet the government's ambitious targets for decarbonisation. Any suggestion of unpredictability or increased risk is likely to inhibit that investment. On the other hand, the need to offer the prospect of change is also understandable. Why should Scottish voters opt for independence in next year's referendum if it just means more of the same? But reconciling the goals of continuity and change can create strains. This Comment looks at the way in which the two themes have affected the discussion of energy policy in the White Paper – it does not consider the wider fiscal issues associated with the place of oil and gas in the Scottish economy, which have been the subject of recent analysis elsewhere, for instance in a report by the Institute for Fiscal Studies²; instead, it focuses on the specific proposals on energy markets in Chapter 8 of the Scottish White Paper.

Energy markets

The discussion starts with a firm statement of the need for change, arguing that “Westminster has failed. Underinvestment has led to a looming security of supply crisis The Westminster Government's proposals to reform the electricity market are intended to address these concerns, but they present major risks”. The White Paper argues that an independent Scotland will manage the energy market more effectively.

Nonetheless, there is no call for radical change. Instead, the Paper proposes that “provided [security of supply] is not jeopardised, Scotland will continue to participate in the GB market for electricity and gas” with “a single Transmission Operator” for the market as a whole and a “system of shared support for renewables and capital costs of transmission”. So the extent of prospective change remains unclear; in fact, the discussion in the White Paper raises (or begs) as many questions about the future arrangements as it answers, including the following:

European dimension There is a wider question, beyond the scope of this paper, as to whether an independent Scotland would remain within the EU (as the Scottish government would like) or have to negotiate its way back in (as the Commission has suggested). In the long run, this may not make a great deal of difference – Scotland would almost certainly have to negotiate with the Commission and the rest of the United Kingdom (rUK) about the basis on which it participated in European electricity and gas markets. Whether inside or (temporarily) outside the EU, it would need to reach agreement on technical market operation issues. Indeed, even if Scotland (or rUK after a referendum) wished to remain outside the EU, it would almost certainly have to negotiate an agreement with the EU, as Norway has found. So the question is not so much whether such a negotiation would be needed as what its outcome might be, in relation to the immediate technical trading arrangements and the wider terms of EU membership.

Renewables target One particular issue would be an independent Scotland's renewables target. At the moment, the UK has a single target (that renewables should have a 15% share of the energy

¹ Scotland's Future: Your guide to an Independent Scotland The Scottish Government November 2013

² Fiscal Sustainability of an Independent Scotland IFS November 2013



market by 2020, which in practice means over 30% of electricity) but there is no guarantee that this target would still apply to an independent Scotland. Scotland's contribution to UK renewables supply is much greater than its share on a pro-rata population basis – for instance, over 60% of onshore wind capacity is in Scotland, as compared with its population share of less than 10%. It is true that less than 5% of offshore wind is currently Scottish, but for planned capacity the proportion is around 20% for offshore (and over 60% for onshore) so Scotland will continue to have a disproportionate share of UK wind (and much other renewable) capacity³. Indeed the Scottish government has a target of 100% renewables “equivalent” by 2020 – meaning that it is aiming to generate enough renewable power to match Scottish demand on an annual basis, though in practice much of this power is expected to be exported (much of it through sub-sea HVDC lines connecting Scotland with the East and West Coasts of England)⁴.

Against that background, it would be reasonable to expect Scotland to have a higher EU renewables target than rUK. Under the present arrangements the extra costs of renewable power (whether supported by Renewables Obligations as at present, or Feed-In Tariffs as in the future) are spread evenly across the UK but if Scotland were a separate country there would be no reason for rUK consumers to pay for the cost of meeting the Scottish target, as opposed to the rUK target (indeed Ed Davey has already said that this will not happen). Scotland could of course continue to export renewable power but this might have to be at market prices (which could be very low – see below) except to the extent that a deal could be negotiated with rUK for exports which could count against rUK's target. Such an agreement might well be possible – the White Paper expresses Scotland's willingness to continue to “assist the rest of the UK in meeting its renewable energy targets” and this might well continue to be the most cost-effective way for rUK to meet its targets. Nonetheless, there would be implications for electricity prices in Scotland; it is possible, for instance, that rUK would no longer be prepared to continue to share the “capital costs of transmission”, as suggested above, if much of that transmission capacity is in Scotland, and is there to meet higher Scottish targets.

Separate Scottish price zone Another uncertainty surrounding the negotiation is whether, even if it can remain within the GB market, Scotland would need to constitute a separate pricing zone under the EU target electricity market model. The composition of generating capacity in Scotland is significantly different from that in rUK. It has an overall surplus, consisting mainly of inflexible renewables and nuclear output, which it aims to export. However, there are at present transmission constraints on the border between England and Scotland, limiting the amount of exports that can be accommodated. Many commentators⁵ therefore argue that Scotland would eventually need to constitute a separate pricing zone under the European market model, whether or not it were an independent country – and if it did become independent, that would only be likely to accelerate the process. The implications for Scottish consumers are not entirely clear. On the one hand, Scottish wholesale prices might well be lower, because of the high share of low marginal cost plant (nuclear and renewables) in the Scottish system. On the other hand, the overall costs of the Scottish system seen in isolation might well be higher, because of the cost of renewables⁶. (See below under “Affordability”.)

Electricity Market Reform (EMR) The White Paper is critical of the UK government proposals. However, it puts forward no clear alternative strategy; indeed it states that “the current market trading arrangements for electricity and gas will continue” (which perhaps begs the question of what will actually happen, given that those arrangements are due to change in any event). If the EMR arrangements are kept in Scotland, in addition to the possible different target for renewables, there

³ Data from *Wind Energy in the UK: State of the Industry* Renewable UK November 2013

⁴ *Electricity Generation Policy Statement 2013* The Scottish Government 2013

⁵ Eg David Newbery *Contracting for Wind Generation* Economics of Energy and Environmental Policy, vol 1 issue 2, March 2012

⁶ This is an example of the growing wedge between costs and prices in European electricity markets discussed in an earlier Comment. See *The EU Target Model for Electricity Markets – Fit for Purpose?* OIES May 2013



might also be a need for a specific national approach on back-up capacity, particularly in view of the high priority given to security in the goals quoted above. Scotland might want to make its own security assessment, and define its own capacity requirements,⁷ reflecting the higher penetration of intermittent sources in the Scottish market. But again, there could be cost implications for Scottish consumers.

Policy Divergence The possible difference between Scottish and rUK renewables targets referred to above is just one case of possible policy divergence. This specific example may not be long-lasting – the targets only run to 2020 and it is likely that a new EU approach will then replace the present system. However, over time the prospect of policy divergence is only likely to increase. The White Paper raises the possibility of such a policy divergence from the Scottish end, without being very specific about the Scottish government's intentions. But of course, changes could also come at the other end – energy policy making in the UK as a whole is moving fairly rapidly at the moment and the Scottish government would not necessarily want to commit to all possible future proposals. In particular, the Labour Party has proposed fundamental changes in electricity markets, including a mandatory Pool and greater unbundling. It could well be very difficult for Scotland to participate directly in such a market without changing the Scottish system to fit.

There could also be differences in the area of **regulation**. The White Paper calls for a separate Scottish economic and energy regulator which could, however, be based at the Scottish offices of Ofgem (thus combining continuity and change). Whether this would work would depend on a number of factors – in particular whether the two regulators have compatible functions. For instance, one can assume that Ofgem's duties would relate to the protection of rUK, rather than Scottish, consumers; and that it would have to carry out its duties in a way which supports the rUK's environmental objectives. A Scottish regulator's functions would presumably be based on the objectives of the Scottish government and the needs of its people; they might even be framed in a fundamentally different manner from Ofgem's, given that the intention is that the Scottish energy regulator will not be an autonomous body but part of a general economic regulator.

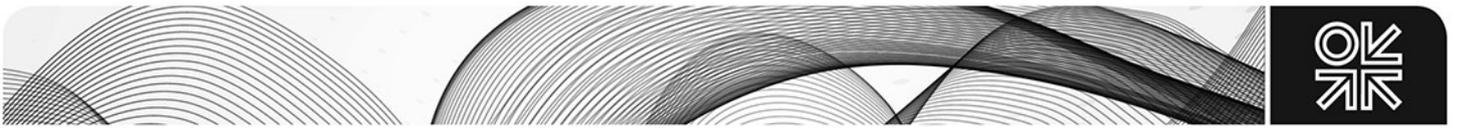
In short, while the White Paper talks about continuing to participate in current market arrangements, it may be aiming at a moving target; the aspiration is not unreasonable but the implications are unclear.

That is not to say that policy divergence within a single market is impossible. There are examples in Europe, and in particular in the Irish and Iberian single markets, where two jurisdictions, one large and one small, cooperate within a single market while retaining their own separate policies. It is, for instance, possible (as with Spain and Portugal) for two countries to have their own different capacity payment systems within a single market. But the Irish market has gone for a much more unified approach, with cross-ownership and a mandatory Pool system; the prospect of policy divergence within Great Britain, taking account of the factors listed above, would at the very least add considerable complication.

In that situation, three factors stand out as critical:

- The need for **good will** on both sides. Divergences can be accommodated provided both parties are prepared to compromise, but this cannot be guaranteed – as noted, the Scottish government argues that Westminster has failed, while Westminster is saying that it would not pay for a Scottish government's aspirations once Scotland becomes independent, so there is a real possibility that there will be no meeting of minds at political level. Indeed, under EMR Westminster took over most of the Scottish government's role in relation to the development of renewable energy. EMR is essentially geography free (neither Feed In Tariffs nor capacity payments are designed on a geographic basis) and Westminster may be reluctant to tinker with arrangements which are already creating significant uncertainty. There is also (on the

⁷ See DECC 2013a, Electricity Market Reform: Capacity Market – Detailed Design Proposals June 2013 Cm 8637



Scottish side) something of a “best of both worlds” approach which may make for a difficult negotiating position. The Scottish government wants more reference to geography in relation to North Sea resources so that it can secure the benefits for Scotland, but wants to share power market costs across the UK. This may not be an easy outcome to achieve.

- The importance of **institutional structures**. The White Paper suggests an “Energy Partnership” to jointly steer the approach to the energy market and serve Scotland’s long term interests but the rUK may not give much weight to such considerations. Fora of a technical and practical nature are probably needed to support such high level initiatives and enable the Scottish government to have a say in governance. It is notable, for instance, that the two markets referred to above (Ireland and Iberia) both have a Market Operator, separate from the System Operator, in which the interests of both sides can be represented (for instance Portugal runs the forward part of the Iberian market) and which can act independently and transparently. There is no specific call for this in the White Paper – indeed it appears to accept the continuance of a single Transmission Operator. But if National Grid (a private company) acts as System Operator for the whole GB system, with no separate Market Operator, it is difficult to see how Scottish views can be represented effectively and how transparency in market operation can be achieved.
- Governmental **capacity and expertise**. An earlier Comment⁸ noted the strains which EMR would place on energy governance in the UK, by effectively requiring the government to plan the whole electricity system. The problems for the Scottish government could be even more acute. It would need the necessary policy and analytical skills in-house if it is not to rely mainly on reports from consultants (who may be expert but will not in the end be accountable). Yet it is starting more or less from scratch – since energy is not a devolved matter, the Scottish government has limited responsibilities and experience in this area.

Overall then, while the aim of continuity – of staying with a single GB energy market – is easy to express, in practice there is likely to be a good deal of change in this area and so, inevitably, considerable uncertainty.

Affordability and energy efficiency

The White Paper’s criticisms of Westminster’s track record on energy emphasise, among other things, the issues of affordability and fuel poverty. It says that “In a country of Scotland’s energy wealth, it is unacceptable that consumers now face rising prices, increased fuel poverty and the risk that our renewable energy ambitions are not fulfilled”.

Less clear, however, is how a Scottish government would put a stop to rising prices (especially if it has at the same time to meet its ambitious renewables target). The White Paper talks about incentives for greater energy efficiency; however energy efficiency is already a devolved matter and Scotland has a good deal of sub-standard housing stock (as well as harsh weather conditions). It is not clear why independence as such should lead to a step change in this area (especially given the pressures on Scottish government budgets); this is one area where continuity is more likely, despite the rhetoric of change. In fact, the Scottish government has already anticipated one development in UK policy – it plans to move the cost of measures like the Energy Company Obligation from bills to taxation.

⁸ See *Back to the Future? Electricity Market Reform Update* OIES December 2011



There is also a slightly more speculative point – how much of a priority would energy efficiency be for a future Scottish government? It would be in a significantly different position from rUK. On the one hand, it is likely to have a capacity surplus in electricity rather than face a looming shortage; on the other, electricity generation in Scotland is already fairly low carbon, consisting mainly of nuclear (35%) and, increasingly, renewables (24% but set to rise)⁹. So the arguments that energy efficiency is important for security, or should be supported because of the failure to internalise the cost of carbon emissions, are less powerful in Scotland than in rUK. Whether or not this affects future policy is at present unknowable but it does tend to make it even more unlikely that there will be a massive surge in expenditure on energy efficiency.

There is also the question of whether Scottish energy, particularly electricity, prices will be lower or higher than in rUK, assuming some degree of market separation. Again the position is uncertain. A recent report (the DREUD report) by a group of academics suggested that Scotland could meet its renewables targets at lower cost after independence¹⁰, because of the decision of rUK to invest in nuclear power¹¹ – the argument is that Scotland would not face the high costs of new nuclear and could deliver renewables at lower cost if it had control of its own programme. This is one possible scenario. However, in the view of this author, it is not the most likely one; Scottish policies are likely to add significantly to electricity prices (depending to a large extent of course on the outcome of the negotiations discussed above). Nuclear power may be expensive but at the prices on offer it is well below the cost of, say, offshore renewables. If Scotland can avoid the cost of nuclear, it will presumably by the same token have to bear the cost of its own renewables sources, which is likely to increase the overall costs of its system. Furthermore, the calculations in the DREUD report make a number of optimistic assumptions about renewables and largely ignore the system and resource costs¹² – for instance, they assume that capacity prices for Scotland will be in line with the rest of the UK and that wholesale market prices will be unaffected. A more likely outcome therefore, taking account of these factors, is that consumer prices in Scotland will continue to rise and could well be higher than in rUK. In short it is difficult, despite the criticisms of UK policy in the White Paper, to see why affordability should be any less of a problem in an independent Scotland.

Hydrocarbons

Something of the same argument applies to hydrocarbon production in Scotland. Again the White Paper is strong in its criticism of Westminster for failing “to provide effective stewardship of Scotland’s oil resources”. It says that it will develop a more appropriate fiscal and regulatory regime for oil and gas in independent Scotland. However, an Expert Commission which is currently looking at the options is not due to report until next year, so the details of the regime are unclear. Furthermore, the White Paper stresses such key objectives as long-term stability and certainty; formal consultation on any reforms; and providing incentives for exploration and production – all within the constraints of having “no plans to increase the overall tax burden on the industry” and, for instance, “no impact on the value of relief received by operators” on decommissioning. It is not clear, within these parameters, whether, despite the criticisms, independence would indeed result in any substantial change or whether continuity would be the more likely theme in this area.

⁹ See reference at footnote 4.

¹⁰ The DREUD report (Delivering Renewable Energy Under Devolution). See M:ISSUU - The Dred Report 2013 by The Robert Gordon University.mht

¹¹ Nuclear is the non-barking dog in the White Paper. The Scottish government does not want to build new nuclear power but does not seem in a great hurry to close the existing plants, at Hunterston and Torness, which constitute a significant proportion of Scottish capacity – indeed it has said it is prepared to consider lifetime extensions. However, in the paper referred to above (footnote 4), it is assumed that these plants will be closed by 2030.

¹² See *Renewable Energy Targets: the Importance of System and Resource Costs* OIES February 2013



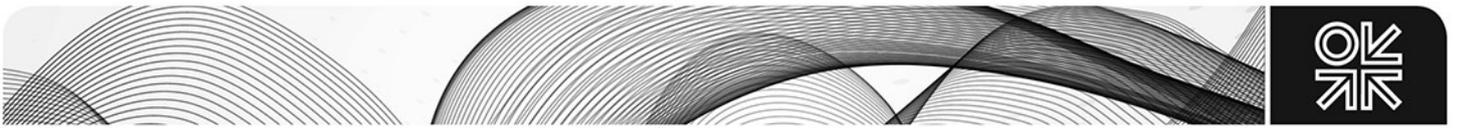
Scottish Energy Fund

The White Paper makes the creation of a “Scottish Energy Fund” an early priority. The aim would be to invest revenues from oil and gas production to provide investment for future generations from the exploitation of these non-renewable resources and to smooth receipts from oil revenues. It argues that such funds are common among producing nations, the UK being an exception. It does not, however, consider in any detail the differences between these nations and Scotland, or set out clearly how the fund would be operated or what its precise purpose would be. As discussed below, there are many possible functions for such a fund and they depend on the circumstances of particular resource rich states.

Scotland’s starting point is not entirely typical; most countries or states with sovereign funds of this sort have much larger revenues from hydrocarbons in proportion to government budgets; indeed, they often enjoy considerable fiscal surpluses arising from their hydrocarbons revenues, so the logic of investing for the future is strong. This logic is less cogent in the circumstances of an independent Scotland. After taking account of North Sea revenues, its fiscal deficit would in the short term be very much in line with that of rUK (and this is likely to be true of overall government debt in relation to GDP). However, the IFS has argued that in the longer term it faces greater challenges in this area – ie Scotland is unlikely to enjoy a budget surplus in the foreseeable future, especially given that it sets out a number of potentially expensive expenditure commitments in the White Paper. It could be that it made sense for Scotland to cut public expenditure now and set up a fund to help with future expenditure, for instance future pensions liabilities, but the White Paper does not set out specific goals of this sort.

Instead it argues for a rather more general smoothing function. It says that “to embed the fund into the management of the public finances of an independent Scotland, we will plan Scotland’s public finances and borrowing requirement on the basis of a cautious forecast for oil and gas revenue, transferring any surplus to the stabilisation fund and withdrawing resources should oil and gas receipts come in below forecasts.” This might indeed lead to pressure for greater fiscal discipline and a prudent approach to public finance but it is difficult to square with the various promises elsewhere in the White Paper; it also makes the size of the fund a function of the accuracy of government forecasts, which may not be an optimal approach (see below). Furthermore, the White Paper makes it clear that transfers to the fund would not depend on the existence of a fiscal surplus, or on the overall level of debt, but could take place once the “deficit is reduced to below the level of long-run economic growth” which it expects might be as soon as 2017/2018. In other words, the Scottish government is in effect prepared to borrow money to put into the fund, even if public debt remains high and there is still a deficit. Whether this is the best way of providing for long term financial stability is arguable; a future Scottish electorate might prefer to inherit no, or at least very low, debt.

Another respect in which Scotland would be in a different position from many other countries with sovereign funds is that it is not aiming to have its own currency. In a number of other cases, countries have used sovereign funds as a way of avoiding the “Dutch disease” – a rise in their currency with an adverse effect on industrial competitiveness. Scottish independence as such would not affect the impact of future North Sea revenues on the value of sterling, so there is no real parallel here. On the other hand, an independent Scotland without its own currency would have one less adjustment mechanism in the face of external shocks – it is arguable that it needs to develop some sort of “automatic stabiliser” to cope with such situations. But whether the fund as envisaged is the best instrument for that purpose is less clear. For instance, one way of providing stability via a fund would be to use it to create a smooth profile in public investment; this is not listed as a specific aim in the White Paper, though it may be implied. But this approach is particularly relevant for countries (eg



small developing countries) which cannot easily borrow on international markets and Scotland presumably does not expect to be in that position.

Another possible purpose for a fund might be to protect against a financial shock such as has been experienced across the OECD in recent years. But the very existence of a fund for this purpose could create a moral hazard – encouraging Scottish private individuals to take greater risks than they would otherwise do in the knowledge that there would be enough money available to bail them out, if necessary. In any event, it is arguable that revenues for such a fund should be raised from the financial sector during booms, rather than from fluctuating hydrocarbon revenues.

While it does not really go into specifics, the White Paper does mention the general aim of smoothing revenues and there are good arguments for such a course. Nonetheless, here again the position is not always clearcut – while it is indeed likely that hydrocarbon revenues will be volatile, the future price of oil is unknown, so it is not obvious that it is possible to produce a “cautious forecast” – apparent “caution” might just lead to a reduction in welfare for today’s Scotland in order to increase income for future, richer, Scots, which is arguably a sub-optimal and incautious outcome.

So the logic (and potential future size) of a Scottish Energy Fund is unclear, as is its likely future significance – it may well, given the constraints listed above, end up being little more than window-dressing. One thing that most commentators agree on in relation to a well-designed fund of this sort is that the purpose of the fund should be clearly set out in advance in a way that gives some certainty about the circumstances and ways in which it will be built up and drawn down; otherwise, the outcome is likely to be constant lobbying for the money to be spent on particular projects of short term or sectional interest. The discussion in the White Paper does not go very far towards providing such a degree of clarity.

Conclusions

Overall, therefore, it is not clear that the White Paper delivers as much certainty – or offers the prospect of as much change – as it claims. Indeed, in the areas where it talks about continuity (eg GB energy markets) change may well be the order of the day. On the other hand, where the White Paper seems to promise big changes (energy efficiency, affordability, oil taxation) it could well be that circumstances dictate a relatively high degree of continuity. Whether the Scottish government has struck the right balance, and whether the package in the White Paper proves attractive to Scottish voters, remains to be seen, but it can at least be said that the debate is likely to raise a number of important issues for the future of Scotland, its energy sector and its people.