“Dear Energy Secretary, I’m afraid to tell you there is no money”:
Climate policy under the consolidation state

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Abstract
This paper explores the implications of the contemporary political economy of liberal democracies for climate policy. In particular I draw on Wolfgang Streeck’s argument that democratic capitalism faces a drawn-out crisis following shifts in the nature of the social contract between labour and capital from the 1980s onwards, which are played out through the fiscal sustainability of the state., Focusing on the contradictions between democracy and the logic of liberalised, financialised capital, Streeck analyses the erosion of the tax state, the rise of the debt state, and most recently the emergence of the ‘consolidation state’. For consolidation states, deficit reduction has become the overwhelming imperative, but the political difficulty of increased taxation drives austerity as the means to this end. The need to decarbonise in a period in which these are the dominant dynamics, especially in liberal market economies, produces two clear challenges for climate policy. One is the political (as opposed to technical) difficulties in establishing carbon pricing. The other is in support for renewable energy, where quasi-fiscal frameworks (in the UK taking the form of the Levy Control Framework) have come to play an increasingly central role. The main focus is on the UK but comparison with other OECD countries is made at points. The paper concludes by drawing out some implications for the ability of democratic capitalist political economies to decarbonise sufficiently quickly to avoid the worst impacts of climate change.

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1. Introduction

In the literature on sustainable development, a widespread view is that the goal of social justice is just as inherent in the concept as is environmental sustainability. This has recently been given expression in the notion of ‘safe and just operating spaces’, lying between a social floor and environmental limits (Leach et al 2013). The Sustainable Development Goals (SDGs) themselves include an end to poverty, full employment and a reduction in inequality. In debates on climate policy in the UK, while the SDGs have little real purchase, versions of this ambition can also be found, for example in the attempt to simultaneously end ‘fuel poverty’ while managing a transition to a low carbon economy (e.g. Ekins and Lockwood 2011) or in the concept of ‘Just Transition’ where those workers losing out from a low carbon transition would be helped to find new roles (TUC 2009).

These normative positions beg a number of questions. One is what the underlying causes of both environmental unsustainability and social injustice are. Another is whether either of these goals can be reached without reaching the other, or indeed whether it is possible to reach both simultaneously. A third question is how such goals are to be reached, not only technically, but also politically.

Addressing such questions requires, as a starting point, some sort of framework for analysing the existing political economy in which attempts to achieve sustainable development – in this double sense of environmental sustainability and social justice – have to operate. Only with such a framework can we hope to begin to assess the political difficulties facing such attempts, and political strategies for overcoming those difficulties.

In this paper, I offer an attempt do this by contextualising climate policy within an understanding of the contemporary dynamics of relationships between states, publics and capital in the developed world. In particular I draw on one body of theory – Wolfgang Streeck’s (2011, 2014a) work on the democratic capitalism – to argue that the project of decarbonising energy systems in mature post-industrial economies faces a specific set of challenges relating to the politics of tax. I then go on to explore an example of this politics in the case of renewable energy support policy in the UK.

The approach taken here is distinct from the focus of much existing theory on the political economy of climate policy, which has focused mainly on the role of capitalist finance and energy corporations in determining the pace and shape of climate policy, especially via carbon trading mechanisms, in both neo-Gramscian (e.g. Levy and Newell 2002, Newell and Paterson 2010) and realist (Meckling 2011) versions. While this literature has provided essential insights into how the relationships between states and capital shapes climate policy, it has less to say about distributional issues, and the ways that climate policy is shaped indirectly by the wider political dynamics of contemporary capitalist democracies. This is why Streeck’s approach is of value, as it is based on a consideration of the deeper dynamics between capital and labour, and between citizens and creditors, that are at work in contemporary capitalist democracies.

Because Streeck’s theoretical framework is concerned with the tensions between capitalism and democracy, the analysis here is also related to the debate on whether and how far effective climate policy is compatible with democracy (Shearman and Smith 2007, Bättig and Bernauer 2009). The contribution made here is to specify more precisely why climate policy is difficult in capitalist democracies. At the same time, one caveat to note is that...
precisely for this reason, this approach is applicable only to capitalist democracies, and in practice post-industrial capitalist democracies with mature welfare states. It is not necessarily a good guide to thinking about the political economy of climate policy in, say China or even India. However, it is nevertheless widely applicable across OECD countries including the US, Canada, Australia and Europe.

2. The delayed crisis of democratic capitalism

Streeck (2011, 2014a, 2014b), working in the tradition of Polanyi and Kalecki, is concerned with the relationship between the institutions of capitalism, especially labour markets and finance, on the one hand and those of democratic politics on the other. In his approach, governments in democratic capitalist societies lie at the fulcrum of this relationship, since they have to simultaneously meet the demands of voters for public services and economic security, and the demands of the owners of productive resources for legal and market conditions that guarantee returns to investment, and therefore growth.

Since these two demands lead in opposite directions – one towards a social democratic model with strong unions, high wages, low unemployment, high taxation and spending on public services and welfare and the other towards flexible labour markets, low taxation and a minimal welfare state – the state in democratic capitalist societies is caught on the horns of dilemma. Thus Streeck (2011: 3) characterises democratic capitalism as a political economy ruled by:

‘two conflicting principles, or regimes, of resource allocation: one operating according to marginal productivity, or what is revealed as merit by a “free play of market forces,” and the other following social need, or entitlement, as certified by the collective choices of democratic politics. Governments under democratic capitalism are under pressure to honor both principles simultaneously although substantively the two almost never agree – or they can afford to neglect one in favor of the other only for a short time until they are punished by the consequences, political in the one case and economic in the other. Governments that fail to attend to democratic claims for protection and redistribution risk losing their majority while governments that disregard the claims for compensation from the owners of productive resources, as expressed in the language of marginal productivity, cause economic dysfunctions and distortions that will be increasingly unsustainable and will thereby also undermine political support.’

Streeck argues that this conflict between capitalist markets and democratic politics is ‘endemic and essentially irreconcilable’ (Streeck 2011: 2). As such, it is never resolved, and there is never an equilibrium settlement between the two principles. He also acknowledges that some individuals (i.e. those with significant pensions and other forms of wealth) will also potentially be caught between these two principles; on the one hand as bond holders they will want to be sure that governments remain creditworthy and as shareholders they want to enjoy high profits and low taxes, but on the other hand as workers they want to be paid adequately and as citizens they want to benefit from infrastructure and public services.'
In the period of rapid economic growth in Europe and the USA that followed the Second World War, the conflict was masked, since high levels of profitability were compatible with the expansion of welfare and public services entitlements for voters, which had the effect of generating ‘deeply rooted popular perceptions of continuous economic progress as a right of democratic citizenship’ (ibid: 6). However, it became increasingly difficult for states to deliver in those perceptions as productivity gains and economic growth slowed down in the early 1970s.

Up to this point, unions had accrued considerable power in labour markets, reinforced by governments’ commitments to full employment. As productivity rises started to level off, rather than risk direct confrontation with workers (and voters) by abandoning that commitment and opposing wage increases, governments turned to loose monetary policy to accommodate them, but at the price of inflation. Across most of the largest economies in the world, inflation in the early 1970s was in double digits, and in the UK peaked at above 20% (Streeck 2014: 35).

Inflation did not harm workers represented by strong unions which could win wage indexation, but it did badly affect the owners of financial assets and creditors. In Streeck’s terms, this particular strategy bought time, but the combination of low growth and inflation was unsustainable economically and politically. The resulting instability and political crisis provided an opportunity for coalitions representing the interests of the owners of finance to come to power, most notably under Reagan in the US and Thatcher in the UK, at the turn of the 1980s. Thus began the ‘long turn’ to neo-liberalism. Crucially, Streeck characterises this development as the ending of the social compact, through the exit of capital under conditions of increasing worker militancy and declining profits:

“It’s response was to begin with preparations to withdraw from the social contract, overcoming its passivity, restoring its capacity for action and organization, and extricating itself from democratic political efforts to plan its activity.”

Since the early 1980s, the balance of the settlement between the broad mass of citizens and owners of financial assets has shifted decisively in favour of the latter group. However, this does not mean that governments have simply ignored the demands of citizens; in Streeck’s words, governments ‘must not allow themselves to be monopolised by either side, since that might trigger a crisis in their relations with the other side’ (ibid: 83). What they have done instead is to try to constantly tread a path which favours the interests of capital while attempting to accommodate citizen entitlements to the extent that it maintained democratic legitimacy.

Inflation, and with it the power of trades unions, was crushed (Glyn 2006), but at the cost of unemployment, which again rose sharply across the major economies in the early 1980s (Streeck 2014: 36). While most states attempted some degree of welfare reform, the rise of chronic unemployment radically increased the burden on the state just as tax revenues dropped. The result was a second phase of ‘buying time’, this time through large increase in borrowing by governments. In the US, public debt as a proportion of GDP rose from around 40% in the late 1970s to around 70% by the mid-1990s (ibid: 42). This strategy of bridging the gap between what citizens expected in terms of welfare and public services on the one hand and tax revenues on the other through public debt also relied on the liberalisation of the financial sector that was to provide the debt. This process started in the US, and followed in Britain in 1986 with the ‘Big Bang’ deregulation of the City of London. However, just as
with the inflation of the 1970s, the public debt solution was not sustainable in the long term – governments began to worry about the rising share of debt service in budgets, and at least rhetorically, were vulnerable to the possibility that creditors might start to have doubts about the ability of states to repay (ibid: 36).

Streeck argues that the option of raising taxes to pay down debt was politically too risky. With financial liberalisation, capital was increasingly mobile internationally. Tax competition drove a downward trend in corporate tax rates went into in long term decline (Brys 2011), and although a widening of the tax base meant revenues from corporate tax did not (Clausing 2007), options for raising corporate taxes by the 1990s were limited. Top income earners were also increasingly mobile, and top rates of tax started declining from the 1980s (Brys et al 2011). At the same time, increasing taxes on the broader working population was also an unattractive option. Higher unemployment, falling union membership and labour market deregulation, all had the effect of shifting the share of income from labour to capital. In 26 out of 30 countries surveyed in OECD (2012) the share of labour in national income declined over the period 1990 to 2009, with the median share falling from 66% to just under 62%. Possibly the relocation of jobs through globalisation (Krugman 2008) and certainly technical change arising out of the rise of ICTs (Autor et al 2003, Goos et al 2009) produced a squeeze on the middle part of the labour market, displacing workers into low skilled jobs and depressing wages especially at the bottom. By the late 1990s, real wages for these groups were stagnant (Glyn 2006, and see below). Indeed the squeeze on wages from the late 1990s was such that those in work were starting to slide into poverty, and some governments brought in tax credits to prop up living standards. Low or non-existent wage growth at the bottom and middle together with increasingly buoyant returns at the top made the politics of tax increasingly toxic (Streeck 2014: 67-68), and governments have generally avoided raising them, especially in visible forms. Between 1990 and 2010, tax revenue in seven of the largest economies has remained static, despite the large gap between that revenue and government spending (Streeck 2014: 63).

Instead of raising taxes, governments mainly went down the route of bearing down on public spending, led first by Clinton from the early 1990s. Fiscal responsibility was also a by-word for Britain in the 1990s, with the new Blair-Brown government in 1997 pledging (and delivering) a two-year spending freeze to establish their credentials with the financial markets.

However, while this strategy did have an effect on debt ratios, it did not release governments from the horns of Streeck’s dilemma. Instead, spending freezes increasingly threatened the legitimacy of governments because of the effects, especially on public services. In Britain, the 1990s saw a deterioration in education and health services starved of investment, and this contributed to the massive rejection of the Conservative government in the 1997s election. At the same time, budgetary consolidation threatened to depress demand; growth per head in the period 1990 to 2004 was the lowest in the post-war period (Glyn 2006: 131).

At this stage, with both increased taxes and fiscal consolidation unattractive options, Streeck argues that a third mechanism was introduced to bridge the gap between expectations of entitlements and the unwillingness of capital to underwrite those expectations – private borrowing by households. A second wave of financial liberalisation allowed a boom in private borrowing form the early 2000s which in turn fed a burst of growth – what Colin Crouch (2009) called ‘privatised Keynesianism’. As welfare provision had become eroded through the consolidation of the 1990s, as well as the scope and generosity of public services,
the slack was taken up by the boost to private incomes. Household debt also allowed citizens to fund their expectations of the good life, defined in terms of home and car ownership, increasingly out of the reach of their wages.

This third cycle of buying time of course ended in the financial crisis of 2008, which triggered a massive and prolonged depression with consequent unemployment, a sharp resurgence of public debt and the rise of austerity as an economic and political project. The crisis left capitalist democracies in a doubly difficult situation; since its peak in the mid-2000s, household debt has contracted somewhat, but it remains much higher than before, while public debt has ballooned to levels unprecedented since the 1950s. Thus in the US while both government and household debt were around 45% of income, by 2010 they were both around double that (Streeck 2014: 42).

Somewhat as in the 1990s, but in a tighter spot, after a short-lived attempt at Keynesian fiscal stimulus, governments have turned again to fiscal consolidation. In Britain this has of course been expressed politically through the idea of the necessity of austerity, institutionally through the Treasury and personally in the form of George Osborne. According to Streeck, the consolidation state is characterised by its embrace of two imperatives. One is to service debt above all; to maintain credibility with financial markets. Thus the emphasis since 2010 has been on eliminating the deficit, while debt targets have been more in the background. The second imperative is to prefer cutting spending to raising taxes as the form of consolidation. This is consistent with an ideological commitment to a small-state, low-tax, liberal economy, but it is also driven by the fact that the politics of tax is as bad, if not worse than it was in the 1990s and 2000s. Median real wages in Britain and the US have fallen since the financial crisis, making attempts to raise tax on the broad population even more difficult politically.

3. Climate policy in democratic capitalism

The events outlined above are of course well-known, and there are many different framings of the story. Streeck’s approach has some weaknesses; for example he gives relatively little attention to the role of technological change in transforming labour markets and driving financial bubbles (see e.g. Perez 2003). He also may overstate the degree to which all capitalist democracies follow the same path (see e.g. Thelen 2014 for a more nuanced view). However, in my view Streeck’s framework does point to some important deeper dynamics of political economy underlying what appear to be technical policy debates, and that can therefore help us make sense of those debates.²

The political economy of democratic capitalism that Streeck describes is important here because it forms the context for climate policy. For climate activists, climate change ‘changes everything’, but for the vast majority of actors, whether citizens, investors, creditors or corporate capitalists, it has not, in fact, yet transformed the wider dynamics outlined above. Climate policy is to some extent driven by the existence of the climate problem, but it is heavily shaped by the existing political economy. In this section I consider the implications of Streeck’s analysis for climate policy in a broad sense. In section 4 below I explore the implications for two particular sets of policies.

At the most general level, Streeck’s framework implies that attempts to decarbonise the energy system and wider economy in capitalist democratic countries take place within a dynamic in which governments are trying to tread a line between avoiding alienating
investors and creditors on the one hand and avoiding alienating citizens as voters on the other. However, since the 1980s this is a line that has broadly favoured investors and creditors over workers and citizens. It has so happened that climate change as a policy problem has emerged in a specific phase of democratic capitalism, which has also shaped the nature of the response. If the climate problem had emerged in the 1950s and 1960s rather than the 1990s and 2000s, then it is likely that the general strategy would have been rather different.

The fact that the climate problem has emerged during the phase of neo-liberalism has two broad consequences. One relates to the position of capital in relation to climate policy. With the important exception of those corporations whose assets and revenue are tied to fossil fuels or intensive energy use, the broader capitalist elite has embraced the need for climate policy. In Britain this can be seen not only in the proliferation of groups like the Corporate Leaders Group on Climate Change, the Aldersgate Group, the Institutional Investors Group on Climate Change and Green Alliance, but also in the fact that the CBI has been a staunch supporter of climate policy since the mid-2000s. From the insurance industry through to conglomerates like Unilever, most business elites have become convinced that extreme climate change will be systemically disruptive and against their long-term interests. Climate change is now routinely identified as a priority threat in peak capitalist platforms such as the World Economic Forum, and a large number of multinational corporations threw their support behind the need for an international agreement on climate policy at the 2015 UNFCCC CoP in Paris.

However, while climate change is now firmly on the elite agenda capital does not expect to take on a significant share of the costs of decarbonisation. In this sense, just as capital has become resistant to underwrite the costs of social reproduction, by paying wages that are so low that they require governments to provide tax credits, so it is resistant to absorbing the costs of environmental sustainability itself. Rather, capital, which retains the option of exit that has been created through globalisation, expects to pass through such costs to citizens, as well as capturing rents that are created by governments through policy and are mainly financed from levies on citizens as consumers. Indeed, the policy discourse in areas such as renewable energy is so aligned with the wider political economy that it is framed in terms of the need for governments to provide ‘investment-grade’ policy (e.g. Hamilton 2009; IIGCC 2013), i.e. reducing risk and maximising returns to counter the perpetual threat of exit by capital. This then is the context within which we must understand business calls for action on climate change.

As in Streeck’s account of the wider political economy, the stance of capital places governments in a dilemma, which leads to the second consequence for climate policy. Climate policy is fundamentally economic in nature, and broadly comprises a set of taxes and subsidies, and regulations that create costs and opportunities. As discussed above, capital will seek to pass through costs to citizens as consumers while seeking to capture subsidies. Corporations have been remarkably successful at this in many areas, as discussed below. However, this then presents governments with a new problem of legitimacy; they have to manage the fact that citizens are absorbing the bulk of the costs of moves to greater environmental sustainability, while also providing subsidy to attract investors.

In this task, governments are greatly helped by the fact that, broadly, the majority of the public in most countries accept that climate change is a real problem, are concerned about it, and support action to mitigate it, including the development of renewable energy. However,
working against this general atmosphere of acceptance, governments face two problems. One is that in some countries (especially Anglophone liberal market economies) a significant minority of voters remain hostile to the climate policy agenda, and in some cases this view is amplified by key actors in the media. A second is that even where climate change is a valence issue, it has low salience, and the evidence suggests that willingness to pay for climate policy is limited (Lockwood 2013). The benefits of climate policy are diffuse, long term, and not tied to any particular politically organised interest amongst publics in OECD countries. This makes the politics of climate policy fundamentally a politics of consent, outside of a relatively small group of climate activists.

In a context of rapid economic growth and rising incomes, managing such consent while imposing the costs of policy on citizens would be relatively easy, and indeed this was the case during the years of privatised Keynesianism of the early and mid-2000s. However, in the phase of credit crunch, depression and falling real wages following the financial crisis, it is has been far more difficult. This is not just an argument that recession and austerity have pushed concerns about climate change to one side (Scruggs and Benegal 2012). Rather, I am arguing that Streeck’s framework implies that governments will seek to organise climate policy so that capital can pass costs on to citizens, and that this presents governments with a legitimacy problem particularly in phases, such as the current one, when the contradictions created by the two conflicting regimes of capitalism and democracy have not been successfully if temporarily deferred by some form of debt.

4. The case of renewable electricity support policy in the UK

I now turn to an examination of an example that illustrates these dynamics. The example concerns support for renewable electricity in the UK. Renewable energy policy in the UK has undergone a fundamental change in the last five years. However while the implication of this change has been increasingly recognised important within the policy and investor community, its nature has been largely overlooked by academic analysts.

4.1 Renewable electricity support policy

Dedicated support for electricity from renewable sources in the UK started in the early 2000s, when the Renewables Obligation (RO) was introduced. This was a portfolio standard approach that set a target quantity of renewable generation that was to steadily increase over time, rising from 3% of supply in 2002-03 to 20% around 2020 (Woodman and Mitchell 2011). The RO was subsequently revised on several occasions but the basic principle of a quantity target was retained.

In 2008, the RO target was superseded by the binding target taken on under the EU’s 2020 climate and energy package of 15% of energy to come from renewable sources by 2020, and an expectation that this meant around 30% of electricity from renewable sources. At the time the target was agreed to, renewable generation was 5% of the total; by 2014 the share had reached 18% and by the third quarter of 2015 it was 23.5% (DUKES 2015, DECC 2016a).

The RO was mainly aimed at larger investments – each RO certificate was for a minimum of one MWh – but in 2010, after lobbying from NGOs, a different type of support mechanism was introduced for small-scale renewables (i.e. under 5 MW) known as the Feed-in Tariff
(FiT). The Fit gave a fixed level of support for each unit of generation that differed between different technologies. It thus fixed the price rather than the quantity of renewable electricity to be supported, on which there was no limit.

In 2014, a new policy was introduced under the Electricity Market Reform process that supersedes the RO, which will now be gradually phased out. This policy is known as Contract for Difference Feed-in-Tariffs (CfD FiTs), and as with the RO covered larger investments of above 5MW. As with standard Feed-in Tariffs, the owners of a particular type of renewable electricity technology will receive a fixed price (known as the ‘strike price’) for each unit generated. However, there are two key differences between CfD FiTs and FiTs for small scale investments, which remained in place. First, owners received a payment equal to the difference between the wholesale electricity market price and the strike price, so if the market price rose above the strike price, owners would have to pay back the difference. Second, rather than the government setting the strike price as with small scale FiTs, the strike price was to be determined through an auction process, where the government would tender a certain amount of generation by a particular technology and potential generators would bid in up to the point where target volume was met.

All of these mechanisms involved supporting investment in renewable technologies that produced electricity at above market prices; the RO through the payment for ROCs above and beyond the wholesale market price, the FiT and the CfD FiT through either a direct fixed payment to the generator or a payment of the strike price less the market price. In both cases, electricity suppliers were required to make these extra payments. However, they were then allowed to pass on the costs involved to consumers. As discussed further below, some industrial consumers have won exemptions from bearing passed through costs, while other businesses in the non-tradeable sector will seek to pass these costs through to consumers as normal business costs. Thus the burden of pass through costs largely falls on households. Other policy costs, such as the costs of energy efficiency schemes imposed on suppliers and some fuel poverty schemes, were also funded in this way.

4.2 The Levy Control Framework

Following the general election in 2010, the new Conservative-Liberal Democrat coalition government introduced a new approach to such energy policy costs. The Spending Review in the summer of 2010 set an overall cap on costs passed through to consumers created through energy policies by the Department of Energy and Climate Change, including renewable energy support policies. This was then formalised in what was called the Levy Control Framework (LCF) (HM Treasury 2011). The LCF sets a cap on such costs every year, with the cap being set for a number of years ahead being set in Spending Reviews. The LCF caps for the renewable electricity programmes for the first two Spending Reviews are shown below:
Table 1
Levy Control Framework caps 2011/12 to 2020/21

<table>
<thead>
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<th>£m (2011/12 prices)</th>
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<tbody>
<tr>
<td>2011/12</td>
<td>1,844</td>
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<tr>
<td>2012/13</td>
<td>2,352</td>
</tr>
<tr>
<td>2013/14</td>
<td>2,884</td>
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<tr>
<td>2014/15</td>
<td>3,560</td>
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<tr>
<td>2015/16</td>
<td>4,300</td>
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<tr>
<td>2016/17</td>
<td>4,900</td>
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<tr>
<td>2017/18</td>
<td>5,600</td>
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<tr>
<td>2018/19</td>
<td>6,450</td>
</tr>
<tr>
<td>2019/20</td>
<td>7,000</td>
</tr>
<tr>
<td>2020/21</td>
<td>7,600</td>
</tr>
</tbody>
</table>

Sources: DECC 2011, DECC 2013

The framework then requires DECC to set policies such that the central forecast of their costs are within the cap, with estimates produced by DECC and agreed as necessary by the Treasury and verified by the Office of Budget Responsibility, and with the Treasury having full access to the methodology behind forecasts. Periodically adjusted forecasts of income and spend to be prepared by DECC. Where policies are forecast to overspend against the envelope, ‘DECC will have to develop plans to bring spend back within the cap taking into account impact on energy bills and progress towards our targets’ (DECC 2011: 3). If this is not done the underlying threat is that the excess will be taken out of DECC’s departmental budget. There is a 20% ‘headroom’ allowance for unexpected events, but overall the framework is designed to keep costs within the central cap. Moreover, the Treasury needs to approve policies covered by the LCF where they threaten to lead to breaches of the levy envelope (HMT 2011). The expectation is that changes that increase spending through one policy would be offset by a decrease in spend through another policy.

Up until 2015, the LCF did not attract a lot of attention because forecast spending appeared to fit comfortably into the envelope. In its Annual Energy Statement in the autumn of 2014, DECC’s view was that it the LCF would allow additional spending looking ahead rising from around £50m in 2015/16 to £1bn in 2020/21 (DECC 2014). However, going into the 2015 general election, this view was challenged by the think tank Policy Exchange. In a May 2015 blog post, Richard Howard (2015a) argued that DECC was being over-optimistic and had underestimated future costs of existing renewables policies within the LCF due to three effects. The first was that declining market prices due to gas price falls meant that contracts for difference would be more costly because if the larger difference between market and strike prices. The second was that DECC had underestimated the scale of the solar PV boom. The third was that the Department had underestimated how much electricity wind farms, especially offshore, would actually generate. Transitional arrangements for the introduction of CfD FiTs had also cut into the overall budget more than anticipated (Cornwall Energy 2015).

The overall result, Howard calculated, was that the entire LCF envelope out to 2020 was effectively already spent. There would be no room for a further expansion of renewables going forward. He brought dramatic attention to the situation by making reference to the
now-famous letter left by Treasury Secretary Liam Byrne as he left office in the wake of the financial crisis saying: ‘I’m afraid to tell you there is no money left’. Howard’s version read: “Dear Energy Secretary, I’m afraid to tell you there is no money...”. Things were to get worse. In June, Cornwall Energy (2015) estimated an overspend of the LCF cap of around £300 million by 2020. Then in July, the OBR released forecasts for the LCF that reached £9.1 billion in 2020/21, not only well above the £7.6 billion cap but also slightly above the 20% headroom provision (Howard 2015b).

4.3 Effects of the LCF

The Levy Control Framework has had a major impact on UK renewable electricity policy, in two ways. First, it has driven policy change. As the LCF required, DECC quickly responded to the OBR forecasts by making a number of changes to support mechanisms. DECC had already announced in April 2015 a phase out of RO support for solar PV by 2017. In July it announced that it would bring forward this phase out by a year, and indicated reductions in the FiT support rates for solar PV (which ultimately were cut by between 64% and 85% - see STA 2016). The conditions for biomass support under the RO were also changed. The new Conservative government had already announced that it was withdrawing support for onshore wind through the RO in the form of a manifesto commitment, but the LCF situation was a powerful reinforcing factor. As industry analyst Cornwall Energy (2015: 4) put it: “…the closure of the RO and (probably) CfD to onshore wind cannot purely be viewed as a NIMBY-istic reaction to the development of big energy projects in the countryside; it should also be seen from the point of view of increasing consumer levies under a politically agreed cap on spending.”

Second, and more importantly, the LCF has created considerable uncertainty. The introduction of the Contract for Difference Feed-in Tariffs was specifically intended to reduce risk for investors, by providing them with a long-term, fixed price contract for low-carbon electricity rather than the variable price of a Renewable Obligation certificate. However, the unintentional effect of the LCF has been to introduce new sources of uncertainty, for several reasons.

One is that the factors that determine policy costs are variable and uncertain while the caps are fixed. This uncertainty arises not only from sources like underlying future electricity prices but also political decisions, such as whether or not biomass co-firing in the large thermal Drax plant will obtain State Aid approval from the European Commission, and therefore whether allowance for this needs to be included in the LCF spend (Cornwall Energy 2015). There is likewise uncertainty about whether the large tidal lagoon project at Swansea Bay will be included or not. More widely, DECC’s calculations for policy costs have been criticised for a lack of transparency. A second source of uncertainty arises from the fact that resources for support under the CfD FiTs in the LCF are further divided into ‘technology pots’. Allocations between these pots can and has changed, and investors do not have certainty about whether this may happen again in the future. Finally, there is currently no certainty about the LCF envelope after 2020, which is affecting the long term investment climate (Energy and Climate Change Committee 2016). The period after 2020 is also complicated by uncertainty about whether or not a new nuclear plant will be built and operational within the next LCF period (2021-27), since support to nuclear would be a large item.
4.4 The significance of the LCF

The development of the Levy Control Framework marks a major shift in the nature of renewable electricity support policy in the UK. Through the 2000s, the main approach (i.e. the RO) was essentially a *quantity*-based measure, but one that provided a steady projected increase in renewable generation into the future. In 2010 the Feed-in Tariff was introduced as a complementary policy for small scale renewables, which was essentially a *price*-based mechanism with an open-ended approach to quantity. The LCF however, brought both of these mechanisms (and the RO’s successor the CfD FiT) under a *budgetary*-based mechanism. This move is a major source of the uncertainty discussed above, since policy appears to be specifying what it wants to see from renewables in three ways simultaneously.

It is important to grasp how far the LCF brings renewable energy policy within the scope of budgetary policy.\(^10\) For example, the LCF is based on “a strong presumption that agreement would not be given outside of a Spending Review process for changes [in renewable electricity support policies] that take central projections above the agreed cap- including for additions of new policies to the framework” (HMT 2011: 4). This implies that it is Spending Reviews, rather than, say, carbon budgets, which are the primary framework for setting the direction and extent of renewables policy. Renewable electricity support policies are also subject to any changes in the Treasury’s budgeting framework (ibid). This relocation of energy policy under budgetary policy is symbolised by the supervisory role that the Treasury now plays, effectively overseeing the evolution of renewable energy policy.\(^11\)

Complementary to the advent of the LCF is the shift from the RO to the CfD FiT, and in particular the use of auctioning to determine strike prices. Auctioning renewable contracts so as to allow the strike price to be set by the marginal bid is presented as preferable to administratively setting levels of support, because it forces private sector actors, who are assumed to have better information than government, to reveal costs. However, in this context auctions are attractive to government because it allows control over the pace and extent of expansion of support to renewables. The RO set a pathway for expansion, but this was set a long way into the future, whereas auctions give much greater fine tuning of pace and extent as government decides when auctions are held and for what volume of generation.

This approach of course also creates more uncertainty for investors. For example, through the summer and autumn following the announcements about pressures on the LCF, potential investors in offshore wind had no idea whether there would be further auctions under the CfD FiT for offshore wind. In the energy policy reset speech in mid-November it was announced that there would be further rounds, but even this is conditional on whether cost assumptions are realised.

5. The politics of renewable support policy

Above, I have argued that the nature of UK policy for support of renewable electricity has undergone a major change since 2010. The introduction of the Levy Control Framework in particular has brought renewables policy under the scope of budgetary policy. In this section, I explore some of the ways in which the LCF and the intent behind it have been presented and analysed. I argue that none are satisfactory as an explanation, and that an alternative approach is needed.
One reason put forward by the government for the introduction of the LCF is a technical argument based on the classification by the Office of National Statistics of the costs of renewable support on bills as a tax, and the payments given to generators as public expenditure (DECC 2011). This classification is apparently on the grounds that the costs of renewable electricity support are levied in such a way that they assessment is based in turn on the approach taken in the European System of Accounts, which was updated in 2010. This argument can account for the reclassification of pass-through costs and levies on energy bills, but it cannot per se account for budgetary control, which is the key element of the LCF.

A related argument, put forward by some in government at the time of the introduction of the LCF, is that it was becoming clear that the sums involved were going to become significant towards 2020, and have a potential macroeconomic effect. As such they needed to be brought under the ambit of budgetary planning. However, since the amount raised for support to renewables under the LCF is spent immediately, this is in effect a hypothecated tax which will have distributional effects but no major macroeconomic effect. This point also applies to the idea that the LCF is somehow related to the austerity policies of the coalition and subsequent Conservative governments. The levies and cost pass-throughs covered by the LCF may be counted as tax, and payments to owners of renewables as public spending, but since they largely cancel each other out they are revenue neutral, and reducing or limiting the total LCF envelope will have no mitigating effect on the government deficit or public debt. This is spelled out explicitly in DECC (2011).

A more relevant and convincing reason found in official documentation is about impacts on consumers. The LCF is framed as ensuring that energy policy is ‘consistent with economic recovery and minimising the impact on consumer bills.’ (HMT 2011: 3), and averting the possibility that ‘spending [on policies] on an ongoing basis could lead to an unsustainable increase in electricity bills’ (DECC 2011: 4). Concerns about the affordability of energy because of its effects on households and on the competitiveness of industry are of course widespread in the energy policy sphere, and affordability makes up one of the three goals of the familiar energy ‘trilemma’. The search for cost-effective (i.e. minimal cost) solutions to any energy problem is the standard for policy analysis, at least nominally.

A commonly made point about policy costs passed through to energy consumers through bills is that the distributional effects are particularly regressive, relative to the overall incidence of tax. Several analyses based on survey evidence on energy spending by income or expenditure decile show that pass through costs and levies have a disproportionately negative effect on poorer households (see e.g. Garman and Alridge 2015, Lockwood and Ekins 2011). In fact the position is even worse; more detailed and realistic modelling by Preston et al (2010) using information on differential pricing by suppliers in the retail market shows that households in lower expenditure deciles pay a disproportionately higher share of policy costs, relative to their energy use. This is because they pay more on average for each unit of energy, as they are more likely to be on pre-payment meters or on standard variable tariffs, being less likely to switch suppliers. Some households in these lower deciles will benefit from energy efficiency measures (although the targeting of these is far from ideal), but they appear to be less likely than richer households to benefit from support to small scale renewables (Grover 2013).

Focused on this problem, much debate in the policy community is concerned about the impact of policy costs on the ‘fuel poor’ (Thumim et al 2014). However, the idea that the main concern of the government that brought in the LCF was the wellbeing of the poorest
households in the UK is not consistent with other decisions made by that government in coming to office and since. The 2010 Spending Review was focused on reducing the deficit, part of which involved cuts to welfare to those in the lowest incomes, including cuts to tax credits, Council Tax Benefit, Local Housing Allowance, Disability Living Allowance and the introduction of a benefit cap. Analysis of the 2010 Spending Review by the Coalition government by the Institute of Fiscal Studies showed that combined tax and benefits changes were regressive, particularly for the poorest expenditure decile and particularly for non-pensioner households (Browne 2010). Analysis by Browne and Elming (2015) shows that the overall impact of tax and benefit reforms under the 2010-2015 coalition government was regressive, reducing the incomes of the bottom 30% of households by over 2%. The 2015 Budget and Spending Review under the new Conservative government were similarly regressive, with income deciles 2 and 3 particularly negatively affected by £12 billion reductions in benefits spending, despite the introduction of the National Living Wage (Hood 2015, Browne and Hood 2015).

Instead, a more convincing account of the LCF is therefore that it is motivated in large degree by political economy considerations arising from the dynamics identified by Streeck (2014) as discussed above. In particular these considerations relate to the politics of tax, and the distribution of policy rents. Such considerations are less to do with the welfare of the poorest households, which are the least likely to vote and are not coordinated in any way, but rather relate to energy costs for a wider group of households in the low-to-mid part of the income.

That energy costs and policy costs associated with renewable energy are politically salient is clear. Mainly because of a steady rise in the cost of oil, gas and coal, the cost of retail energy increased through the 2000s. The salience of energy costs rose in line with this (Lockwood 2013a). As prices peaked in 2008, the then Prime Minister Gordon Brown intervened, convening a summit with energy companies to broker rebates for those most affected. Prices remained high as the coalition government came into office. In the autumn of 2013, energy costs rose to the top of the political agenda following a speech by the then Leader of the Opposition, Ed Miliband.

At the same time, environmental policy costs, including taxes, also received an increasing amount of attention. During the mid-2000s, the main focus of resistance to such costs was in transport, including resistance to road pricing, rises in fuel duty and increased air passenger duty (Lockwood et al 2008). Financing support for renewable energy (and indeed wider policies such a carbon pricing) through cost pass-throughs initially looked like a good strategy, since these were far less visible politically than direct taxation, and in the mid-2000s they were still relatively small. However, they began to be identified and labelled by a hostile media and the Conservative opposition as part of a strategy of ‘stealth taxes’ being pursued by the Labour administration, and especially Gordon Brown. This was especially the case following the adoption of the 2020 targets for renewable energy in 2008 and the publication of the Low Carbon Transition Plan in 2009 brought policies more to the fore. By the end of the 2000s, levies and cost pass-throughs had been relabelled as ‘green taxes’ which became the target of frequent critical coverage, especially in parts of the print media (e.g. Derbyshire 2008a, 2008b, Henderson 2009, Moore 2009, Shaw 2009, Ingham 2010, Mortished and Whitwell 2010, Leach and Gray 2010, Wardrop 2011, Macrae 2011, Poulter 2011).

It is not possible to understand this degree of hostility to policy costs, and the nervousness of politicians about such costs, in terms of hostility to renewable energy per se. Public attitude tracking surveys by the government have shown consistently high levels of support for
renewable energy in the region of 75-80% (DECC 2009, DECC 2016b). However, while renewable energy is popular, there is at the same time limited willingness to pay for it – in a 2010 survey, for example, Spence et al (2010) found 36% of respondents unwilling to anything more for renewable electricity, and 88% unwilling to pay more than £10 a month. Eurobarometer surveys give similar findings.

This contrast between support for renewables in principle and unwillingness to pay can only be explained within the context of the wider political economy. Over the 1980s, the median real wage in the UK rose relatively quickly. However, the pace of growth slowed in the 1990s and by the early 2000s it had stagnated, subsequently falling from 2008 as the recession following the financial crisis kicked in Gregg et al (2014). The median wage trend disguises dramatically different patterns at the top and the bottom of the labour market. Wage growth for the top 10% grew faster throughout the whole period since the end of the 1970s, while wages for the bottom 10% rose (at a slower rate) in the 1980s but since then have fluctuated, not rising above their 1990 level. Goos and Manning (2007) provide evidence that this polarisation of wages is related to a hollowing out of the middle part of the labour market. The fall in employment in Britain between 1976 and 1995 for jobs in the mid-part of the wage distribution was as high as 20%. This suppressed wages in the middle but also at the bottom, as workers move out of the medium-skilled into the low-skilled job market.

Thus, as discussed in general in section 2 above, the period from around 1990 in particular has seen what is often characterised as a ‘squeeze’ on the middle part of the labour market in the UK. As wage growth has slowed and then stopped, attitudes to tax have hardened. British Social Attitudes tracking survey data show that the proportion of respondents supporting an increase in tax and spending fell from a level of around 60% in the early 1990s to around 30% by 2010, with the decline accelerating form the start of the 2000s.15 This period also saw the setting up of the Taxpayers Alliance, a lobby group whose small size belies its influence and reach which derive from a close relationship with the same print media that has been so hostile towards policy costs on energy bills.16

By contrast, those in the low-to-mid part of the labour market have not obtained much of the policy rent associated with renewable energy support. The vast majority of wind power assets in the UK are owned by the six large energy utility companies and other large and medium sized wind companies. The remainder are owned almost all by landowners. The distribution of ownership of solar PV is more complex, with about half of assets now in the form of larger installations owned by companies and half owned by households as roof-top installations.17

How ownership of roof-top solar is distributed is not known, but it is likely to be concentrated amongst better-off households (Grover 2013). A very small proportion of renewable energy assets - 60MW in 2014, representing around 0.3% of the total (DECC 2014b) – are community owned. The concentration of the benefits of renewable energy support policies in the hands of corporations, especially the six large utilities, is also difficult politically, since these companies are generally unpopular and are not trusted.

If households in the low-to-mid part of the labour market owned shares in the companies capturing the lion’s share of policy rents, then this picture would not be so stark. However, they generally do not. This can be seen in the distribution of private pensions and financial savings, both of which could include shares. In 2010/12, employees in the 10th and 25th percentiles on average have no private pension wealth at all and their financial savings are negative (i.e. they are net debtors), while the figure for those in 50th percentile is £21,400 (DWP 2014). By contrast, employees in the 75th percentile have an average combined private
pensions and financial savings wealth of £93,000, while the total for the 90th percentile is £260,000.

Thus the wider context for understanding the politics of renewable energy policy costs is one of a ‘squeezed middle’, rising inequality and increasingly hostile attitudes towards tax on the one hand, and exclusion from the direct financial benefits of the policy on the other. These developments have made political elites nervous of tax increases, or anything that can be construed as a tax increase, because the squeezed middle also makes up an important part of the electorate. As Ford and Goodwin (2013) document at length, this was the group ‘left behind’ by globalisation, and the group that has been most likely to defect from Labour and the Conservatives to UKIP. This is also the group that is most likely to be sceptical of climate change (Poortinga et al 2013) and most oppose to renewable energy. In this context, the significance of the Levy Control Framework is that it relocates support to renewable energy from the spheres of energy and the environment to the sphere of budgetary control, and from the arena of policy to that of politics.

5. Conclusion

Capitalist democracies are attempting to decarbonise their economies during a period in which neo-liberal policies and technical change have polarised labour markets, sharply increased inequality, shifted the share of income in favour of capital against labour, and led to chronic debt as a strategy for meeting the expectations of citizens, which in turn has driven austerity to satisfy creditors. The key link between these dynamics and climate policy is the politics of tax. I have argued that the only coherent way to understand the development of the Levy Control Framework in UK renewable energy support policy is within a framework that contains the above elements.

A majority of business and political elites in democratic capitalist countries want to decarbonise, but within the current political economy it is difficult if not impossible to get capital to absorb the immediate financial costs of climate policies, as businesses will almost always pass these costs through to consumers. Where they cannot, as in energy-intensive export industries, exemptions have been granted. However, governments have become reluctant to see an open-ended burden on publics, for the same reason that the politics of increasing taxes more generally has become so difficult.

Most other European countries have an approach to financing the policy costs of renewable electricity support as the UK, i.e. from cost pass-throughs or levies on bills, although in a few, such as Spain and Portugal, policy costs are covered by taxation (CEER 2015). The UK is unusual in having brought renewable energy under budgetary control in such a formal multi-year framework. In the Netherlands budget caps for the SDE/SDE+ support systems for renewable electricity are set by the Ministry of Economic Affairs, Agriculture and Innovation, but only on an annual basis. Other countries do not have budgetary control per se, but the same underlying dynamics in which policy costs provoke political resistance and policy change can also be seen. In Germany, where a major debate on policy costs flared up ahead of the 2013 general elections, reforms changed support policy from an open-ended system under the 2001 EEG to a system with capacity growth ‘corridors’ where growth in excess of the corridor automatically triggers a digression in support rates and slowing of the programme. This in effect a move from setting price to setting quantity. In many other countries, including Spain, Greece, and the Czech Republic, the reaction to rapid growth in
policy costs, mostly associated with faster than expected investment in solar PV, has been to choke back growth through huge cuts in support rates (sometimes retrospective), or in suspension of programmes (Fouquet and Nysten 2015). Outside of Europe, cost also played a part in the difficulties faced by Ontario’s renewable energy support programme over the 2000s (Stokes 2013).

If the analysis presented here is correct, several implications arise. One is that the absence of social justice might actually slow progress to environmental sustainability, meaning that sustainable development without social justice might not only be definitionally impossible but also substantively difficult. In the case of renewable energy support policy costs, the fear, expressed by Garman and Alridge (2015: 7) is that ‘Ramping up these levies so significantly in coming years would lead to a high risk of a more sustained public backlash, which might be stoked and amplified by influential critics of climate policy in parliament and in the media. This could cause an unravelling of the entire policy framework that underpins the low-carbon transition in this country…’ Such a backlash would undermine the acceleration of decarbonisation hoped for by environmentalists, optimistic after the success of the Paris CoP. This is what appears to have happened in countries such as Spain, where investment in renewables has collapsed after policy reversal. The Levy Control Framework in the UK was put in place precisely to avoid such a set of events. However, by introducing budgetary caps on top of price and quantity setting, it has created new uncertainties which have confused investors.

A counter-argument to the analysis presented here is that the despite the challenges of decarbonising in the era of the squeezed middle, the biggest political risks are now over. The current policy costs of some renewable energy technologies, notably onshore wind and solar have fallen fast, and may be close to being competitive with conventional fossil fuel generation. However, while this is true, much of the costs passed through to bills to 2020 and beyond will be legacy costs. At the same time, there will be new costs as renewables grow further, especially to do with expanding network infrastructure and making it smart. For example, the 2050 Roadmap for moving to a low carbon economy produced by the European Commission envisages investments of €270 billion annually between 2010 and 2050 (Hedegaard 2011). Probably the largest factor working in favour of reducing the political challenge of decarbonisation without a major change in the underlying political economy is the sharp fall in fossil fuel prices, which has taken some of the heat out of the politics of policy costs.

Another implication of this approach is that whether we might expect to see patterns between how far climate policies are undermined by budgetary factors on the one hand, and how far national political economies follow the trends discussed above. The major contrasts we might perhaps expect to see here is between those countries where labour market deregulation, polarisation in wages, de-unionisation and public service reductions have gone furthest (broadly in liberal market economies in the Anglophone world), and those where such changes have been muted or absent because alternative solutions to the democratic capitalist dilemma have been found. Recent work by Kathleen Thelen (2014) implies that Denmark represents a paradigmatic case of the latter group. In this context it is suggestive that Denmark’s levy system for renewable support, the Public Service Obligation, is not considered part of the budgetary domain and is determined not by the finance ministry but by a technical energy body. However, what is needed here is a more systematic comparative assessment which is beyond the scope of this paper.
A final point is about the relationships between democracy, capitalism and sustainability. One common view is that capitalism is not compatible with sustainability because it is fundamentally a growth model. Here the argument is slightly different; it is that trying to bring about environmental sustainability within the political economy of contemporary capitalist democracies is a project that faces certain challenges. By extension, the argument is also that, even if contemporary capitalist democracies succeed in decarbonising their economies, they will not, without fairly fundamental structural changes, produce greater social justice. They will therefore not provide successful examples of sustainable development, on the approach indicated in the Introduction above.

This view is somewhat at odds with the benign view of democracies as being more successful than non-democracies at decarbonisation, for which the emerging literature gives qualified support, at least to date (Burnell 2012). This view, again prevalent in the climate policy sphere itself, is consistent with the position that liberal democracy and markets are natural partners, and that their relationship is mutually supportive. However, as Streeck (2014b) notes, until the second half of the 20th century, capitalism and democracy had long been considered adversaries. The current trends towards authoritarian populism, itself a reaction to the structural trends in neo-liberal capitalism discussed above, would seem to support him.

Notes

1 Even if such individuals use private education and health services, these rely on underlying public systems, for example for trained teachers, nurses and doctors.
2 An example is the attempt by the British government (and specifically the Chancellor) to cut the value of tax credits while at the same time introducing a ‘living wage’ at a level significantly higher than the minimum wage, in the autumn of 2015. The existence of tax credits in the first place, as mentioned above, reflects the unwillingness of capital to pay wages sufficient to meet basic living standards. To avoid a crisis of political legitimacy that would arise out of mass in-work poverty, governments have stepped into the gap by topping up incomes for low paid workers. However, over time spending on tax credits has grown – it is now around double that of income support for the unemployed. It is not surprising that cutting tax credits should become a target for fiscal consolidation. However, the Chancellor knew that such cuts would have a political cost. This is why the ‘living wage’ measure was brought in, to appear to offset to losses of reduced tax credits. In effect, this was an attempt by a government to seek a solution to the balancing act required in democratic capitalism by requiring capital to meet more of the social contract directly. With unions now far too weak to force higher wages at the bottom of the labour market, the government itself has taken on this function. In the event, however, the fact that the living wage would far from compensate for tax credit losses became clear. The resulting political reaction was far stronger than the Chancellor anticipated, and he backed off.
3 These points are discussed further below in the context of carbon pricing and renewable energy support.
4 Prior to this, renewable electricity projects could benefit from the Non-Fossil Fuel Obligation, but this mechanism was mainly designed to support nuclear power, and while some bids were made to build windfarms with NFFO support, in practice few were built (ref – Woodman and Mitchell?)
5 Technically, in the CfD Fit the immediate counter-party is a government backed company, but the costs incurred by that company in setting up CfD’s is then allocated to suppliers through a formula based on demand they meet.
6 See the written Ministerial Statement by Lord Bourne of Aberystwyth on 22 July 2015, Available at:
7 See Ed Davey’s comments at:
8 http://www.carbonbrief.org/levy-control-framework-unanswered-questions
9 See, for example, the letter from Lord Deben, Chair of the Committee on Climate Change, to Amber Rudd, Secretary of State for Energy and Climate Change, 22 September 2015, available at:
Some accounts (see for example Benson and Russell 2014) do not appear to have taken on board that LCF elements, which are now far larger than any low-carbon spending directly out of tax, now form part of the budget.

A widely held view is that energy policy under the current government is effectively made by the Chancellor George Osborne rather than the Energy Secretary Amber Rudd; see for example: http://www.conservativehome.com/platform/2015/10/dennis-clark-rudds-energy-policy-failure-and-how-she-must-turn-it-around.html

At the point that the LCF was introduced, the ONS had ruled on the RO but was still considering whether the small scale FiT should be similarly classified. However, on the basis that the RO decision made it very likely that the ONS would reach a similar conclusion on the FiT, the government moved to include the FiT within the LCF as well.

Vallely (2008) cites Conservative Party spokesman Peter Ainsworth arguing that the disguising of stealth taxes as green taxes has so “poisoned the well of public goodwill that I’m beginning to wonder whether green taxes will ever be possible”.

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