

Institution: UNIVERSITY OF BIRMINGHAM
Unit of Assessment: C21 Politics and International Studies
Title of case study: Shaping government policy on renewable energy feed-in tariffs
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Dr David Toke's research at the University of Birmingham has contributed to policy made by governments in the UK and EU, and the work and policy of environmentally concerned NGOs. Renewable Energy is a crucial aspect of EU and UK sustainable energy strategies and feed-in tariffs have now become the preferred method of incentivising renewable energy in the UK. Toke made a major contribution to generating this change through his proactive dissemination of research on feed-in tariffs and the publication of a key public policy report, at a time when little was known about this type of policy instrument.</p> <p>His research has stimulated debate among industry professionals and events organised by him have provided a forum where the industry and NGOs can develop an evidence-based dialogue. Through using popular media to disseminate his research findings, Toke has provided a source for greater public understanding of the related issues, and in particular has challenged the decisions of government. In a broader sense, his research has contributed to improving governmental and financial support for renewable energies in the UK and thus environmental sustainability.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>The underpinning research concerns analysis of the politics and efficacy of different policy mechanisms used to promote renewable energy in different countries. Toke's research identified how so-called 'market based' systems used to promote renewable energy in countries like the UK were less cost effective compared with systems where prices paid to renewable generators are set by the state. These systems which involve more government intervention in price setting are called 'feed-in tariffs', the best known of which operates in Germany. A particular problem is that market based systems lack the certainty about future returns in order to secure cost-effective investment in specific types of required renewable energy generation capacity. The market-based systems are also unsuitable for independent renewable developers compared to utility based projects, while feed-in tariffs have a good record in promoting volume growth in renewable energy.</p> <p>Toke also provided insight into the politics behind different policy outcomes on renewable energy support systems in different countries and at a pan-EU level. This included analysis of different approaches based on liberal economic theories and political economy. His research on the politics of the 2009 EU Directive on Renewable Energy showed what degree of harmonisation should be achieved between renewable energy support systems, and also whether 'market based' or 'feed-in tariff' models were most appropriate for renewable energy support mechanisms in EU member states.</p> <p>Toke's research into renewable energy and the financing of renewable energy began in the 1990s, but the impact reported below arises from two projects (full details below): First an ESRC funded project into 'Accounting for the Outcomes of Wind farm Planning Applications' from 2003-2005 which in its latter stages focused also, by agreement with the ESRC, on the financing of renewable energy. Second, an FP6 (EU funded project) programme, which ran from 2005-2007, on integration of fluctuating renewable energy into the grid and which explored a number of financial issues; this activity was particularly important in focussing attention on issues relating to feed-in tariffs.</p> <p>Toke was also co-investigator on the ESRC funded project: "Delivering renewable energy under devolution", January 2011 - December 2012. The project was led by the University of Cardiff with fellow collaborators including Queens University Belfast and Robert Gordon University. It assessed the impacts of devolution on the provision of renewable energy focusing on the cases of the UK government in Westminster as the English national level (Toke led the work stream for this area),</p>

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and the devolved governments established in Scotland, Wales and Northern Ireland since 1999. The research combined qualitative data, gathered from documentary sources and interviews with government, business and pressure groups, with quantitative data derived from data-bases of renewable energy development. The findings contributed to ongoing societal debates about the UK constitutional settlement and progress towards the 2020 EU Renewable Energy targets.

Toke undertook this research whilst being employed as a full time academic at the University of Birmingham, in the School of Government and Society and the Department of Sociology. Toke was a Research Fellow from 2001 to 2005, and from 2005 was first a Lecturer, and from 2006 - 2013, a Senior Lecturer in Environmental Policy.

3. References to the research (indicative maximum of six references)

Research Outputs:

- R1) Toke, D. (2005) 'Are green electricity certificates the way forward for renewable energy? An evaluation of the UK's Renewables Obligation in the context of international comparisons', *Environment and Planning C*, vol. 23, no. 3, pp. 361-375 [available: <http://www.envplan.com/epc/fulltext/c23/c0414j.pdf>]
- R2) Toke, D., Lauber, V., (2007) 'Anglo Saxon and German approaches to neo-liberalism and environmental policy: the case of financing renewable energy', *Geoforum*, vol. 38, no. 4, pp. 677– 687 [doi: 10.1016/j.geoforum.2006.11.016]
- R3) Toke, D., (2008) 'Trading schemes, risks and costs: the cases of the EU-ETS and the renewables obligation', *Environment and Planning C*, vol. 26, pp. 938 – 953 [doi: 10.1068/c0728j]
- R4) Toke, D., (2008) 'The EU Renewables Directive - what is the fuss about trading?', *Energy Policy*, vol. 36, pp. 2991– 2998 [doi: 10.1016/j.enpol.2008.04.008]
- R5) Toke, D., (2010) 'Politics by heuristics – Policy networks with a focus on actor resources, as illustrated by the case of renewable energy policy under New Labour', *Public Administration*, vol. 88, no. 3, pp. 764-781 [doi: 10.1111/j.1467-9299.2010.01839.x]
- R6) Toke, D., (2011) 'Ecological Modernisation, Social Movements and Renewable Energy', *Environmental Politics*, vol. 20, no. 1, pp. 60-77 [doi: 10.1080/09644016.2011.538166]

Grants:

- Marsh, D (PI) with Toke, D (CI) Accounting for the Outcomes of Windfarm Planning Applications, Sponsor: Economic and Social Research Council, 2003 – 2005, £148,515.81
- Toke, D (PI) *EC Non Framework : SEANERGY 2020 - Intelligent Energy – Europe*, Sponsor: Commission of the European Communities. May 2010 – June 2012, £51,125
- Cardiff University (PI) with Toke, D. (CI) Delivering renewable energy under devolution, Sponsor: Economic and Social Research Council. January 2011- December 2012, £17,950.

4. Details of the impact (indicative maximum 750 words)

The impact occurring in the period 2008 – 2013, draws upon earlier activities undertaken by Toke in late 2007. Based upon the research listed above, Toke was invited to produce a report for the NGO 'The World Future Council' on the possibilities for renewable energy feed-in tariffs in the UK, called 'Making Renewable FITTER' [see source 1 below]. The World Future Council is an environmentally-oriented NGO funded mainly by German based charitable benefactors interested in building support for feed-in tariffs. This is a system that is widely perceived as being effective in promoting renewable energy in Germany and was hoped would have a similar effect in the UK if implemented. The main recommendation of Toke's report for the World Future Council was the establishment of feed-in tariffs for small renewable energy projects. This report was submitted to the UK Government's review of renewable energy funding in September 2007. During this period, Toke discussed the report with a range of NGOs, journalists, government officials, regulatory officials, and also a junior Treasury Minister.

Since 2008, Toke's research and in particular, the report on renewable energy and wider activities supporting the work of NGOs, has **contributed to changes in government policy**. The report proved to be an important factor in a process leading to the passage of a significant piece of legislation, the Energy Act 2008, establishing a system of feed-in tariffs for small renewable energy projects. This Act which was in line with the recommendations made in Toke's 2007 report [source

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2]. It is notable that the Act was adopted in the context of a successful lobbying campaign focused partly on persuading backbench MP's to put pressure on the Government to introduce feed-in tariff legislation. Toke's work contributed to the initial spur for the campaign organised by NGOs including Friends of the Earth, the World Future Council, Solar Century and the Renewable Energy Association. The campaign was led at a backbench Parliamentary level by Alan Simpson MP. Toke has been a leading member of the campaign for a feed-in tariff approach since 2006 [source 3]. In this way Toke's research can also be seen as **influencing the work of NGOs, and indirectly, the work of UK MPs.**

The feed-in tariff system came into effect in 2010 and was immediately successful. Not only did it increase financial support for the providers of renewable energy systems, but through incentivising the installation of renewable energy sources, the system made a notable contribution to environmental sustainability (a total installed capacity of 1.657MW has been registered under Feed-in Tariffs to December 2012 [source 4, p1]).

Since 2010 Toke has continued to be active in supporting the feed-in tariff agenda, particularly through his work with environmental NGOs. Most recently, Toke's research and advice has informed **the development of further work on energy issues and campaigning by Friends of the Earth** (2011-2013 in particular). In December 2012 Friends of the Earth published a report by Toke entitled "A Proven Solution - How to Grow Renewables with a Fixed Feed-in Tariff" [source 5]. In June 2012, he submitted written evidence to the Select Committee on Energy and Climate Change during its scrutiny of the Energy Bill [source 6], and through this, his 'green energy blog' (<http://realfeed-intariffs.blogspot.co.uk/>), letters and other activities has made a significant contribution to the argument in favour of giving incentives for renewable energy. He has also been in the forefront of campaigns to ensure that nuclear power does not receive preferential treatment to renewable power through articles and letters in local and international news outlets [source 7].

Toke has **publically challenged** the UK government's 'Electricity Market Reform'. Through articles and letters to the *Guardian*, the *Sunday Times* and other media on the subject of renewable energy funding and the Government's Electricity Market reforms, Toke has used his research findings of this research to demonstrate that the Government has done too little to set up effective support mechanisms for renewable energy. However thanks to public pressure, the Energy Bill has been amended to include a mechanism that could support a recognisable renewable energy programme. Toke's work has been instrumental in shaping opinion that has led to reform. Indeed, Toke has sought not only to effect change in policy, but **to change public awareness** with regard to the detrimental effects of existing government policy on the environment and the renewable energy industry.

Toke's research is now beginning **to influence policy beyond England and Wales**. In 2011 he became a member of an expert group established to advise the Green Group of MEPs in the European Parliament on the subject of renewable energy policy. His contribution was mostly in the areas of financial support mechanisms for renewable energy and nuclear power funding. Other members were drawn from public policy think tanks, green NGOs, renewable trade associations, expert consultancies and academia. The report, which will influence the direction of EU policy, was published by the Heinrich Boll Foundation and lists Toke as one of the contributing experts [source 8]. Toke was also invited to advise the Scottish Government's Energy related civil servants in June 2012, when he led a seminar on the EMR proposals and the impact on the Scottish independence debate. This input demonstrates that the financial viability of renewable energy is a growing concern and that Toke's research continues to be in demand by policy-making bodies. Furthermore, his research has also received significant press coverage after the publication of the final report (including *Herald Scotland* and *The Guardian*), and thus contributed to the public debate and understanding.

Toke's research has also **stimulated and facilitated debate** among industry professionals, NGOs and government. In January 2013, Toke issued a Birmingham Brief - an expert comment piece, which aims to provide concise, relevant and timely expert comment for policy makers and the media. Toke also hosted an open debate the same month, involving representatives from both the

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energy and policy sectors. Key speakers included Rachel Cary (Senior Policy Advisor, Green Alliance); Gaynor Hartnell (Chief Executive of the Renewable Energy Association); Doug Parr (Chief Scientist, Greenpeace UK); Dave Timms (Energy and Climate Campaigner, Friends of the Earth); and Alan Whitehead MP (Chair of the Parliamentary Renewable and Sustainable Energy Group). The conference explored the policies needed to underpin a feed-in tariff system for funding renewable energy, and also the sort of policy environment that is needed to ensure the maximum expansion of renewable energy [source 9]. The event coincided with the passage through Parliament of the Energy Bill implementing Electricity Market Reform (EMR) which concerned giving priority to a low-carbon electricity strategy. Following the conference in January 2013, Tom Greatrex MP, the Shadow Energy Minister, personally requested Toke's views. Toke's reports have also been requested by Alistair Darling MP (former Chancellor of the Exchequer and Secretary of State for Scotland) and Lord Foulkes of Comnuck.

5. Sources to corroborate the impact (indicative maximum of 10 references)

- [1] Toke, D., (2007) *Making the UK Renewable Programme FITTER*, World Future Council, http://www.worldfuturecouncil.org/fileadmin/user_upload/Rob/Toke_WFC_UK_FIT_summary.pdf
- [2] Energy Act 2008, Part 2, 41-43 <http://www.legislation.gov.uk/ukpga/2008/32/contents>
- [3] Toke, D (2008) Time to Stop Playing Fast and Loose with Renewables Target, Guardian, 8th April 2008: <http://www.guardian.co.uk/environment/2008/apr/08/renewableenergy.alternativeenergy?INTCMP=SRCH>
- [4] Ofgem Feed-in Tariff Update Quarterly Report Issue 11: <https://www.ofgem.gov.uk/ofgem-publications/75734/feed-tariff-update-quarterly-report-issue-11-revised-july-2013.pdf>
- [5] Friend's of the Earth report, http://www.foe.co.uk/resource/briefings/david_toke_fits.pdf
- [6] Energy and Climate Change Committee - Draft Energy Bill: Pre-legislative Scrutiny Written evidence submitted by Toke: <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenergy/275/275vw40.htm>
- [7] Example of letters to the Media: http://www.huffingtonpost.co.uk/david-toke/will-government-write-a-blank-check-for-nuclear-construction_b_1979027.html
- [8] A European Union for Renewable Energy – Policy Options for Better Grids and Support Schemes, commissioned and published by the Heinrich-Böll-Stiftung, European Union: http://www.boell.eu/downloads/A_European_Union_for_Renewable_Energy_eng_web.pdf
- [9] Details of the conference: <http://www.birmingham.ac.uk/schools/government-society/departments/political-science-international-studies/events/2013/feeding-renewable-policy.aspx>