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Book Review

Energy for the Future, Ivan Scrase, Gordon MacKerron. Palgrave Mac Millan, Basingstoke (2009). 298 pp., 19.99 £, ISBN: 978-0-230-22150-5

Climate policy to a large extent is energy policy. Nevertheless, an integrated treatment of energy and climate policy remains rare. Scrase and MacKerron bring together contributions from the Sussex Energy Group at the University of Sussex that try to assess challenges for energy policy given the key task to promote climate policy and to avoid "lock in" of fossil fuel technologies. While the title suggests a global approach, the spotlight is on the situation in the UK, which was a pioneer in far-reaching liberalization and sees itself as climate policy leader. The book's 14 chapters focus mostly on the processes that led to the development of a government energy policy agenda in the UK and changes within that agenda in the last decade. The analysis has a strong normative touch based on the tenets of the "Ecological Economics" school, arguing that "policies that prioritize cost reduction appear shortsighted [...] and a more interventionist role for governments is becoming unavoidable" (p. xiii). A "social learning process" involving all stakeholders is seen as the silver bullet for defining the priorities of future energy policy.

The book starts with an overview of the challenge of energy security in a world probably having reached peak oil production, looking at the widely differing reactions of countries on the first oil shock. Then the impact of emissions from fossil fuel burning on climate change is discussed and the challenge to reconcile greenhouse gas mitigation with the often competing aims supply security, economic efficiency and social justice. The description of institutions and processes governing energy issues on the global and EU level follows. Here, the absence of a mention of IRENA is striking. It is concluded that a world energy organization would not be a panacea as it could become dominated by industry interests. The section on terminology of energy discourse is very thought-provoking, as it claims that value judgements were pervasive in moving UK energy policy documents towards a positive stance regarding nuclear power. Specific storylines are used to gain discursive hegemony. A nice example discusses using the term "fleet" for a series of new nuclear power plants evoking the past grandeur of the British Navy. Only new, convincing storylines can lead to a policy shift. In my view, however, one needs to be careful not to over-interpret policy terminology.

In the view of the authors, historically "inherited" aims of energy policy are inconsistent with a move towards a sustainable energy system. Privatization and liberalization are barriers and redirection/ redistribution of resources requires "difficult political battles". The technocratic nature of energy policy leads to a tendency of energy policy being a backwater issue until times of crisis.

For the non-British, the chapter on UK energy policy is enlightening. As the policy field tried to abolish itself with the 1982 declaration of the Secretary of State for Energy that "energy policy was dead", other political agendas invaded energy policy. Besides privatization, environmental policy issues gained importance. The dash to gas which helped the UK to reduce greenhouse gas emissions substantially is seen as a "historic accident". The period after 2000 is described in detail. While the authors evaluate the wide stakeholder involvement of the Energy Review and the 2003 White Paper as very positive, they see a capture of energy policy by government from 2003 onwards, stalling interaction with stakeholders and reviving nuclear power in a pure top-down process. The nuclear renaissance was based on a perception that energy security would be lost of natural gas was to be imported. Interestingly, Greenpeace won a lawsuit against the government as the judges found that the government had failed to give sufficient information to justify resurgence of nuclear. A White Paper issued in 2007 is seen as abandoning the search for legitimacy and reinstating authoritarian, top down policy. In a somewhat incoherent chapter, Scrase and MacKerron attempt to prove that renewable energy is necessary to prevent lock-in of fossil technologies and that free market ideology and practice serves as barrier to transitions. They argue that renewable energy reduces the risk to an overall portfolio of electricity generation options and thus is the best option, even from a purely commercially viewpoint. This argument, which is repeated in a subsequent section of the book, is difficult to judge without the underlying numbers. It essentially builds on the risk of strong fossil fuel price increases and does not take into account whether a technology can supply baseload power.

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The authors prefer a "honest brokering" procedure involving many stakeholders to a technocratic top-down policy prescription, provided the procedure is transparent, neutral, broad, diverse and open, and provides a precautionary approach. A Dutch exercise to define energy policy paths through "backcasting" from 2030 enriched with concrete technology implementation experiments is seen as exemplary, but the dominance of energy utilities in the process seen as potentially problematic. Learning, even through failures, is seen as goal in itself, while the authors are skeptical of performance criteria. With regard to technology subsidies, governments should not hesitate to choose specific technologies. Even the commercially successful combined cycle gas turbine technology initially was subsidized through military research. Here the authors do not take into account that a vast array of failed technologies tends to develop lobbies that achieve continuation of subsidies for a long time after the failure has become visible. A feed-in-tariff is seen as preferable to trading of renewables or greenhouse gas certificates. Industrial strengths should be taken into account in deciding the technology priorities. A discussion on how to achieve distributed generation is followed by a characterization of electricity consumer types. The "brown" consumer has a badly insulated house and all imaginable electronic gadgets. The "green" consumer would live in a ecohousing complex served by all forms of renewable energy, minimizing indirect energy use and applying smart meters. Community action is seen as cornerstone of educating the consumer although the authors can only muster limited evidence for its

effectiveness. Feed-in tariffs for micro-generation at the household level are proposed.

Steve Sorrel discusses whether greenhouse gas emissions trading makes sense. He rightly stresses that the stringency of targets is the decisive design element and in the absence of strong targets, emissions trading can nullify the contribution of many other policies. The pricing of emissions allowances is seen as insufficient to overcome the multiple barriers to the innovation and diffusion of low-carbon technologies. The challenge that an efficient trading scheme leads to low prices, thus discouraging innovation and therefore locking in high carbon technologies. whose proponents then weaken the trading scheme's targets is seen as paramount. While this issue is important, it has been considered by designers of trading schemes through phased tightening of the schemes. The description of the EU trading scheme is worth reading; Sorrell argues that renewable energy support policies should be maintained to overcome market failures and achieving equitable distribution of costs and benefits of emissions mitigation, even if they do no longer generate direct carbon reduction once a trading scheme has been introduced. A short chapter on "technical fixes" to greenhouse gas emissions from the electricity sector concludes that neither nuclear, nor biomass or carbon capture and storage can serve as a fix.

In three concluding chapters, the authors sum up the lessons of UK energy policy. In their eyes, sustainable energy transitions require a "whole system" perspectives, where governments provide comprehensive policy frameworks. Without a "popular mandate for change", this is not possible. Distributed generation – especially micro-generation at the household level – is seen as key, while emissions markets are poetically called "a good servant but a bad master". Only a meaningful dialog with the public would generate sufficient legitimacy for policy decisions to rein in markets. Policy instruments should include research funding, feed-in tariffs and subsidies for subsidies for purchase of lowemissions technologies as well as regulation to improve energy efficiency. All these decisions should only be made after processes including deliberation by all stakeholders.

In my view, this recommendation is based on an idealistic view of the energy consumer. Probably, the average consumer does not want to become a "green" consumer or energy stakeholder. He likely cares more about low-cost electricity supply than about climate change impacts of his energy consumption. Of course, he neither likes wind turbines nor large power plants in his backvard but is also not willing to cough off the electricity prices required to achieve the renewable energy breakthrough offshore. I would also doubt that the average citizen is willing to engage in complex micro-generation activities, as he is certainly not interested to organize maintenance of a plethora of energy systems that serve his household. It is much easier to pay one electricity bill to a utility and let them do the rest. The same applies to the deliberative processes, where I would only expect a minority of citizens to really engage. So the inclusive approach suggested by the authors may in practice backfire and deliver a high emissions policy...

Despite its normative idealism, the book is worth reading and could trigger a fruitful debate about the course of energy policy within Europe.

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