

Social acceptability of climate change policies; will energy efficiency always fail to win its case through the consultation process?

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Abstract

Which segments of society 'win' as a result of climate change policies? Actors generally support the principle of reduced emissions through decarbonising fuels, and many are convinced that reducing overall energy consumption is an essential strategy to prevent further damaging climate change. However, proposed strategies for ensuring that sufficient action is taken to reduce emissions suffer from complexity, uncertainty and dissent, especially from vested interests. The policy maker has to choose between many options, and many conflicting consultation responses, to select the most politically feasible and socially acceptable pathway.

An FP6 funded project into Adaptation and Mitigation Strategies for climate change is developing an innovative tool to support policy choice based on a mix of methods, using case studies to test the outputs. Resources include stakeholder deliberation on criteria necessary to evaluate pathway options. The first stage maps energy actors' perspectives of climate change, identifying key issues for socially acceptable policies for the 2012 – 2050 period that would either limit climate change to only 2°C increase, or provide a 'soft landing' to a world 5 degrees above present.

This paper describes this mapping exercise and indicates the issues of most debate, on which rest the criteria for social acceptability. It describes how deliberative methods can involve stakeholders more effectively in policy formation, contrasts the roles of deliberation and consultation, and discusses the engagement of powerful vested interests with this approach.

While there are considerable overlaps in perspectives of different actors, leading to specific points of contention, importantly, decisions on selection and engagement of stakeholders with the process become critical if the criteria for policy decisions are to be accepted by society.

Introduction

Who does win from climate change policies? One of the key issues engaging researchers worldwide is the quantification of the impacts of climate change on various aspects of human society, but 'win' rather depends on the definition of that word. In one context 'win' could mean maintaining current lifestyles, which is not likely to be agreed by a group whose current lifestyles are not seen by them to be desirable, such as those currently living in poverty. A sustainable development perspective suggests all should have access to a 'reasonable' lifestyle. If 'win' is given a more economic definition, it might be those sectors or businesses that improve their profits or countries whose GDP stands to improve as a result of climate change. One of the outcomes of the review of the economics of climate change by Sir Nicholas Stern (Stern 2006) was to identify the potential economic loss from climate change, and from failure to invest now in climate change mitigation and adaptation. So from a business perspective, those who are most likely to gain are those who profit from the investment to be made, especially if technological solutions to climate change, rather than behavioural or lifestyle ones, form the basis of favoured policy. Who these 'winning' actors are, and the exact investment required, depends on climate change policy decisions that need to be made urgently, at local, regional, and global levels. Businesses potentially involved in adapting to and mitigating

climate change, in coastal protection and in decarbonising the energy mix have a keen interest in policies being considered, and policy makers have a keen interest in making their policies acceptable to influential stakeholders.

Climate change policies are at a crossroads because 2012 is the end of the current Kyoto agreements and what follows needs to be developed now. The development of the Kyoto accord through Conferences of the Parties (COPs), and after ratification, through Meetings of the Parties (MOPs) continues to discuss the basis of equitable agreements, whether burden sharing can be adopted without leaving certain countries open to future liability claims, as well as the detail of agreed mechanisms such as CDMs and JI. However, already there is realisation that post-2012 strategies will have to be discussed very soon, and indeed frameworks have already been proposed (e.g. Sugiyama 2005, Wittneben et al 2005). Although this first phase of carbon dioxide cuts was only expected to be just that, a first phase, the self-exclusion of major emitters has led some commentators to suggest that the Kyoto mechanism is unworkable. If this is the case, then different policies have to be put forward immediately to enable suitable discussion. However, engagement in the post-Kyoto period discussion is currently restricted to government bodies. In the last few decades, there has been a shift in power from simple national governance. Trans-national actors that are non-governmental, including corporations, campaigning and charitable NGOs, quasi governmental organisations such as UNEP and others all exercise power through their influence on governments (Risse-Kappen 1995). And democratic governments need support from their electorate, citizens or corporations, in order to implement negotiated policies and to be re-elected to office.

So the process of policy making to mitigate and adapt to climate change may be led by governments agreeing a Protocol and emissions reductions or caps, but the policies that are drawn up have to be feasible not only in terms of delivering their objectives, but in their acceptability to citizens and to business, i.e. societal actors. Policy makers need confidence that their policies will be supported. The method in common use is consultation with stakeholders, performed by presenting a draft document, seeking responses through a number of methods, analysing the responses and creating a final document.

This paper reviews the role of consultation and asks whether this level of stakeholder engagement is sufficient to utilise the knowledge and values in society to integrate with scientific knowledge and create a more acceptable policy solution. It then outlines one approach to integrate this knowledge in form of a Policy Appraisal Framework in development, then looks at the problem in determining whether the 'right' stakeholders are asked the 'right' questions for the approach to be valuable. The paper concludes by discussing whether, on recent evidence, some stakeholders in the electricity industry have been more successful in stating their case than others.

Stakeholder involvement in climate and energy policy making

It is generally recognised that European policy development operates in what is described as a post-normative society (Hajer & Wagenaar, 2003), i.e. in order that governance can take place,

all segments of society have a role to play in both setting and deriving policy; the normative structure of government setting the rules and society obeying them is not enforceable, especially with respect to environmental policy (Vogler & Jordan 2003). Involvement of stakeholders in policy appraisal becomes the issue – how, when and where to do so, and what to do with the information or opinions gained.

It is claimed (van de Kerkhof 2004) that highly complex problems benefit in three ways from stakeholder involvement. Firstly, that participation improves decision-making as stakeholder involvement improves the legitimacy and accountability of the decisions that are made. Secondly, that it improves scientific claims where there is uncertainty by helping to make the science 'socially robust' and thirdly, that it enables structuring of the problem under investigation, enabling the problem to be defined in such a way that all the different views (including conflicting ones) are taken into account, considered and compared. In the EU and Member States, there are many examples of what is now a recommended process of consultation with societal actors. Most recently, reports on the consultations on the EU Green Paper on Energy Efficiency and the UK Energy White Paper analysed responses to both specific defined questions, and more general comment and evidence (EC, 2006; DTI, 2006). However, it is not clear that stakeholders have been asked the right questions, and whether there is agreement on the problem and the way it is defined, as shown by the successful Greenpeace challenge to the UK process (BBC 2007).

The consultation process itself may cause problems when societal actors point out that views expressed have not changed the draft documents in any way. The evaluation of such consultations is not transparent, and the criteria for incorporating views unknown, even though, as in the US, the existence of these views and a response to them may be published. While some segments of society are more powerful than others, that power is expressed in ways that are not transparent (Newell 2000), and often powerful groups are able to oppose policy moves that are potentially damaging to them, unless an equally powerful interest is in opposition (Michaelowa, 1998). The lobbying industry has developed to the stage where new forms of analysis provide policy makers with the opportunity to distinguish between stakeholder views and organised campaigns, and therefore reduce the impact of a volume of response on key issues (Roper, 2002).

Policy makers are hampered by uncertainty over climate change and over paths for the electricity sector. Decisions have to be made although outcomes, the causes, and the degree of impacts are uncertain. 'How much?' and 'how soon?' are critical discussions that precede the 'how?' question. The questions are complex, and radical moves can be opposed by powerful lobbies. It is often recommended that large problems should be divided into smaller chunks in order to solve them one step at a time. Thus it seems to have developed within the EU. Its first response to its commitments under the Kyoto Protocol was to develop the first European Climate Change Programme (ECCP I). Its main aim is to halve the difference between the projected emissions of the EU in 2010 and the target set at Kyoto i.e. an 8 % global reduction in greenhouse gas emissions (Europa 2001). ECCP I has a number of strands, including the introduction of the Emissions Trading Scheme and four other types of

measure – ‘cross-cutting’ energy, transport, and industry. The programme provided the basis for the Energy Performance of Buildings Directive; Energy End Use and Energy Services Directive; Framework Directive on Eco-design requirements for Energy Using products; the Cogeneration Directive, as well as the Action Plan on Energy Efficiency. It also proposed an initiative on increased energy efficient public procurement that promotes demand for energy efficient technology from the public sector, a public awareness campaign and a campaign to disseminate the results of actions and spread best practices.

However, the impacts of these initiatives do not add up to the required 8 % cut, as Commissioner Dimas described at the launch of the new Climate Change programme, ECCPII (Dimas 2005). What the first phase of ECCP did not do was to require electricity producers to decarbonise electricity, partly due to the then focus on market liberalisation and the sovereignty of Member States (MSs) over energy policy. Lower carbon content is encouraged through Cogeneration and Renewables Directives, but selection of electricity sources is almost entirely a choice for the market. The main constraint for generation is the IPPC (Integrated Pollution Prevention and Control) regulations, although many MSs also have policies to promote cleaner generation as part of their ambition for achieving the Kyoto commitment (as well as economic considerations). The main constraint for generators is their compulsory inclusion in the EU Emissions Trading System (ETS). However the new approach to Energy Policy (EC 2007a), and the communication ‘Limiting Global Climate Change to 2 degree Celsius’ (EC 2007b) are more focused on these issues and may provide sufficient direction for tough decisions, especially in respect to the transmission system, to be taken.

Is the EU right to focus on the market for supply side and on directives to promote demand side carbon reductions? Is more radical action required, a greater investment in new technologies such as might be inferred from the Stern Review? In the energy efficiency world there is sometimes a perception that investment in energy efficiency is not considered as important as investment in power supply, generation, transmission and decisions on which technologies to use. This returns us to the complaint that consultations may be carried out, but the results of them are not transparent.

Deliberation versus Consultation

The operation of a consultation process is familiar ground. Forms range from the prescribed consultation points within an Environmental Impacts Assessment, to a wider process of publishing a document and requesting responses, (which may be in answer to specific questions within the document, or free-form) that has been utilised within EU and MSs. Engagement of stakeholders has been the subject of much research ranging from who to involve in participation, and why, to the benefits gained from participatory methods (e.g. Rayner & Malone 1998, Chambers 1999).

Generally, participation can take place at three different levels, each of which has an increasing potential for the participants to exchange information with policy makers and scientists involved in the policy making process (so that knowledge is gained from participants and participants learn in turn). These are:

- Information: providing participants with information to make them aware of scientific findings and policy plans
- Consultation: gauging opinions on policy problems, options and strategies
- Active involvement: in-depth interaction and deliberation amongst participants about policy problems, options and strategies (Haxeltine et al 2006)

Information as a participation strategy clearly allows for an increase in understanding of the problems involved, but neither engages with stakeholders nor gains understanding of stakeholder response to the issues. Consultation, whilst gathering large amounts of information, has been criticised from both sides of the consultation. Those carrying out the consultation have the problem of sorting disparate views, and classifying them into useable information. Tools and systems exist to aid this process such as keyword analysis and the computer program NVivo (Gibbs, 2002). However, reports on consultations such as the Green Paper on Energy Efficiency (EC 2006) are unable to reflect the difference between popular and valuable points of view, as they conclude ‘there are broad ideas that receive either strong consensus or even unanimous support, while other ideas are more divisive’. Nervousness from policy makers that consultation might be unduly biased by well organised campaigns led to a clear distinction between responses by ‘campaigns’ shown as form letters versus individual and organisation responses to the UK’s Energy White Paper (DTI 2006). This strategy is well supported by research into deliberative democracy (Zavestoski et al, 2006) but the approach needs to be clarified as part of the presentation of the consultation process.

Information overload from consultation and a clearer understanding of the divisive issues can be addressed through deliberative methods. These work with stakeholders to restate and understand the problem at the heart of the policy in question, and it does so from the diverse perspectives of all the actors engaged. A well designed deliberative exercise will develop, in a transparent way, a set of criteria for evaluating policy options or strategies that make them more acceptable to society, and therefore, more likely to be feasible in implementation. Developing criteria using stakeholder input in this way uses deliberation as opposed to consultation, and has been applied to complex problems such as disposal of nuclear waste (Burgess et al, 2004), health care choices (Warburton, 2006) and the ethics of organ transplants (Davies & Burgess 2004), among others. However, this can be resource intensive.

How can this enhanced approach to stakeholder dialogue be integrated into policy appraisal when the system and scope of the subject are complex, uncertain and have already had multiple stakeholder input? The next section describes a framework in development that is being applied to electricity policy for climate change mitigation.

Participation as part of the appraisal process – the Policy Appraisal Framework

The ADAM project – Adaptation and Mitigation strategies supporting European climate change policy – is an integrated research project running from 2006 to 2009 that will lead to a

better understanding of the trade-offs and conflicts that exist between adaptation and mitigation policies at global, regional, national and even local scales. Its ambition is to improve the quality and relevance of scientific and stakeholder contributions to the development and evaluation of climate change policy options within the European Commission, in order to deliver the medium-term climate policy objectives and help inform development of a longer-term climate strategy. ADAM will examine the extent to which existing policy trajectories in Europe will deliver Europe's commitments to these agreements and will co-develop (with stakeholders) portfolios of policy options where current trajectories are insufficient.

Most importantly, ADAM will also develop a Policy Appraisal Framework that will engage policy communities within Europe and allow policy advisors to examine and explore the effectiveness of different policy options against specific yet contrasting criteria

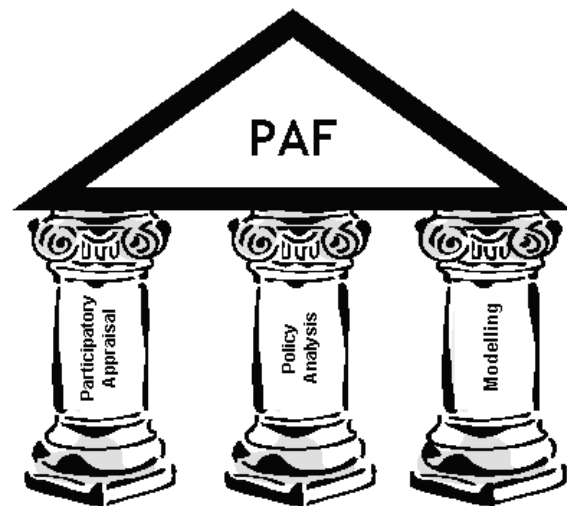
This Policy Appraisal Framework (PAF) will enable policy makers to address climate change by increasing capacity to integrate complex issues. The PAF is a tool to guide and support the development and appraisal of responses to climate change. It provides guidance and supporting resources for conducting an appraisal as a knowledge generation, synthesis and evaluation process. This appraisal process is founded on work of previous EU funded projects, and particularly Methods and Tools for Sustainability Assessment (MATISSE: Framework 6 Project no: 004059-2-IP) and Sustainability A-test (de Ridder, 2006).

The overall vision for the PAF is to provide a web based resource with the following features:

- The PAF appraisal procedure: guidance on a set of procedural tasks for developing, exploring and appraising options/strategies for action on climate change adaptation and mitigation
- A set of resources such as scenarios of climate change (baseline scenarios for future socio-economic trajectories, scenarios of climatic changes and associated impacts, etc); case studies and examples; guidance notes on current policy and regulation; guidance notes on "illustrative" options for adaptation and mitigation of climate change
- A mechanism and process for embedding the PAF within societal processes that need to address climate change.

In order to achieve its vision to promote the generation of socially robust, integrated and sustainable knowledge on adaptation and mitigation strategies, the PAF allows for the combination of different analytical tools and methods in the appraisal. It uses three analytical pillars as its basis: modelling, participatory assessment and traditional policy analysis.

Each of these three pillars plays a role in creating a broad knowledge base in the course of the appraisal; however, a successful application of the PAF may not require all of the approaches to be applied at the same time or to the same extent. The analytical perspective used depends on various factors including the structure of the problem, the research goals and appraisal questions, and the availability of resources. Guidance on the contextual appropriateness of the use of these three pillars for the various appraisal tasks is included within the PAF resources.



(Source: Haxeltine et al, 2006)

Figure 1: Three Pillars of the PAF

The first prototype (Haxeltine et al, 2006) frames the appraisal procedure as a number of procedural building blocks, supported by six further cross-cutting building blocks that support the procedures at different times. The cross-cutting building blocks are: Contextualisation, Knowledge Integration, Coping with Uncertainty, Identification and Selection of Stakeholders, Tool Selection, and Social Learning.

Contextualising the appraisal, in terms of both the science of climate change and the policy context, involves specifying the role of specific types and sources of information that inform strategies for climate change adaptation and mitigation (at the level of corporations, public sector, and other relevant agents). It also requires an assessment of the differing perspectives and understanding of the issues at stake by the different agents involved and exploring the influence that this might have on the development, and acceptability, of different climate strategies. Knowledge integration involves embedding different types of knowledge, not only that formed in the research arena, described as traditional academic, fiducial and bureaucratic (Hunt & Shackley 1999), but also that knowledge or natural capital held by societal stakeholders as part of their understanding of the 'way things work'. Guidance on handling uncertainty is critical in climate change science both for managing and communicating information based on predictive data and for manipulating data within which further uncertainty may be introduced due to assumptions made in the course of that manipulation. Social learning refers to the development of societal understanding of climate change, the issues and the shifting of perspectives gained from working with others who do not share the same culture and values.

As indicated by the choice of appraisal 'pillars', tool selection is a critical issue. The PAF has been considerably informed by the outputs from Sustainability A-test (De Ridder, op. cit.) which provides a database of appraisal tools. Participatory methods can be classified into three levels of actor involvement: at the passive level, information; at the interaction level, consultation, and the engagement level, deliberation (Haxeltine et al, op. cit.). For a participatory appraisal to be relevant it must include the relevant stakeholders, hence guidance is provided on selection

of stakeholders both to avoid bias and to ensure inclusion of appropriate stakeholders at different procedural stages of the appraisal, not just in interviews or workshops.

The PAF is still in development, and is currently being applied in a number of case studies, including the electricity sector. One issue that will be addressed during the evaluation of the process is the range and depth of appraisal that may be needed, and the associated timescales. In the academic world, freedom to experiment may use resources and particularly timescales that may not result in an easily administered tool for real-world policy makers. Consequently, a scaled version of the PAF is intended as an output from the project, but one where deliberative methods can be used to identify more socially acceptable policies. The tension between what is achievable in an academic project and what might be required in a fiduciary exercise leads to critical decisions that are discussed later in this paper.

Energy sector actors' perspectives

SELECTION OF STAKEHOLDERS

In applying the PAF to the electricity sector case study, one of the most difficult problems has been agreement on the selection of stakeholders, indeed on the scoping of the electricity sector as a system of reference.

Three options for a sector map have been presented. In the first, the focus is a simple market model with electricity producers on the one hand, and electricity users on the other. Electricity users have been subdivided into major electricity users (e.g. manufacturers belonging to national and international energy intensive users federations), other commercial users and domestic users. This has the virtue of simplicity, but whilst agency (i.e. the capacity to change or influence the system) of electricity producers and major users is described relatively easily, agency of other users is not. Initial proposals suggested omitting other commercial users entirely. For domestic users (consumers), agency could be described by various actors operating on consumers' behalf including electricity suppliers, for whom domestic users are customers, lobby groups acting with a societal focus or consumer protection remit, manufacturers of electricity using technologies (EUTs) for the domestic market, and manufacturers of electricity (energy) saving technologies (ESTs) in the same market. Thus expanding the first idea to this more complex one, a map can be drawn that makes a first analysis of the principal perspectives of these actors that could be tested in a participatory exercise (shown in Table 1). This mapping is based on analysis of stakeholder responses to previous consultations (UK Energy Review, EU Green Paper on Energy Efficiency, op. cit.), on published reports (e.g. WBCSD 2006) and industry position papers.

Table 1: Mapping of actor perspectives in the electricity sector

Actor group (and subsets)	Electricity producers			Electricity suppliers	Network operators	Energy Regulators	Policy makers	End users			Energy Agencies	NGOs
	Traditional	Renewable	Nuclear					Domestic	Industry	EUT / ESTs		
<i>Perspective</i>												
Cost/profit	●	●	●	●					●	●		
Access to int. markets	●	●	●									
Investment in new plant	●	●	●									
Competitive electricity market						●	●					
Competitive m/f sector							●	●	●	●		
Removal of unfair subsidies	●	●										
Availability of fuel	●	●	●									
Meeting regulatory requirements				●	●	●						
Legislative burden/ assistance									○	○		
Sufficient electricity to meet demand				●	●	●	●					
Network functional/ accessible		●		●	●	●	●					
Development of new technology	●	●			○		●			●		
Reliable supply				●	●			●	●	●		
Efficient use of electricity											●	○
Socio-economic benefit (e.g. employment)							●	●	●	●		
Consumer protection						●	●	●	●	●		○
Energy prices						●	●	●	●	●	●	
Carbon emissions	●	●	●				●	●	●	○		●
Green electricity/ green products				○				○		○		

● General interest ○ interest to some

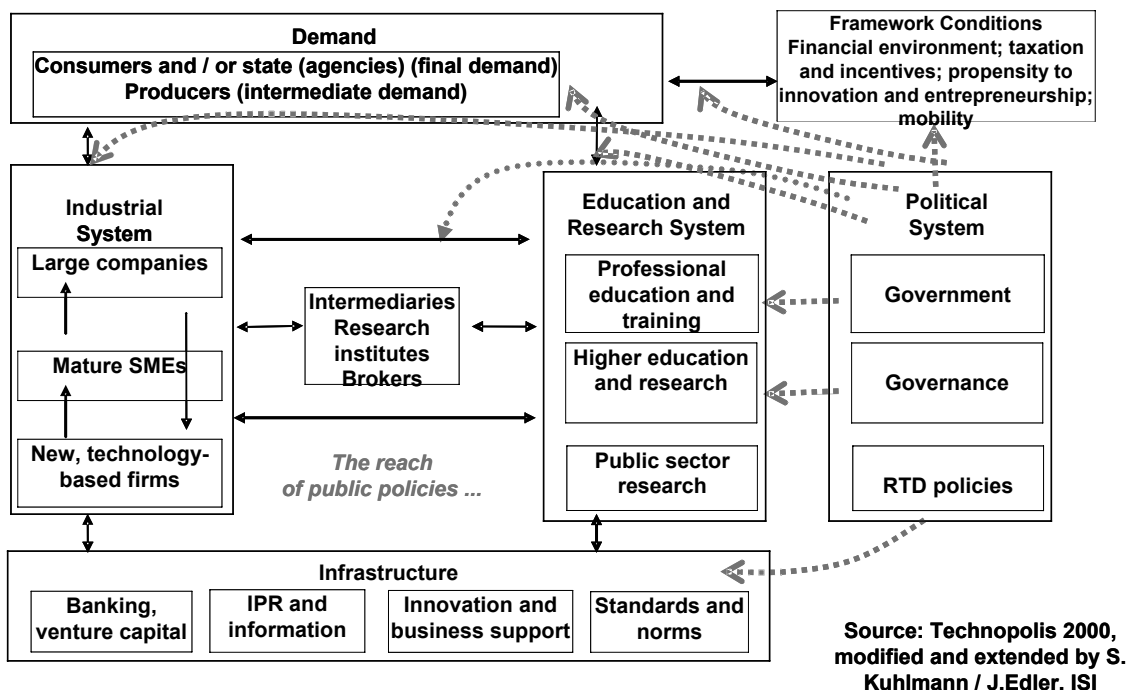


Figure 2: Innovation System; a heuristic

However, a more complete description of the electricity sector includes the actors involved in innovation that are crucial to the mitigation of climate change and the transition to a low-carbon economy. A map describing this system, without an attempt to identify shared perspectives, is shown in Figure 2.

This provides the basis for a more complete map include actors that have agency for achieving policy implementation, such as investors. But to what extent do these actors have agency in policy design as opposed to policy implementation? The answer to that question depends on the specification of the question being addressed in an appraisal, the scope of the system being appraised, as well as the perspective of the appraiser of the benefits of stakeholders being involved at early stages of policymaking (Pett & Guertler 2005).

A further perspective can be placed on selection of stakeholders by utilising transition theory. Transition theory considers the levels of *landscape*, *regime* and *niche* where the landscape describes the rather long-term economic, cultural and environmental trends of the society; regime describes the dominant culture technologies, practices and assumptions embedded in the infrastructure of society, and niche describes peripheral technologies and cultures that are sources of innovation (Geels 2005). Actors do not belong in the landscape; they are part of the regime or occupy a niche, but it is proposed here that actors in the regime can be considered as two types. The first are those who are aware of changes in the landscape, e.g. climate change, depletion of fossil fuels, and respond to them, by mobilising resources including those from niches, utilising niche players to develop adequate responses to changes in the landscape (Smith et al 2005). These are labelled here as landscape responders. The second are those who are embedded in the regime as it is at the present, are not responding to landscape changes, and to whom niche operators may present a threat.

For the PAF application in the ADAM project, this suggested that a useful way of covering a broad range of stakeholders in a small number of interviews would be to select those actors who operate as landscape responders to gain a broad perspective from a number of different angles and to get a more detailed view of the issues of interest by addressing the main agents as well. This leads to the following groups or organisations as the target, but clearly some groups of stakeholders are missing:

- Policy makers (landscape responder; agent)
- Trade associations & networks (landscape responder; agent)
- Investors in electricity technology (landscape responder)
- Environmental and societal NGOs (landscape responder)
- Policy researchers (landscape responder)
- Government delivery agencies (agent)
- Electricity generators (agent)
- Electricity suppliers (agent)
- Regulatory bodies (agent)

The research team had considerable difficulty agreeing the methodology for this selection, together with an appropriate geographical spread. Concentration on actors operating in the electricity sector seemed to negate the perspective of energy demand, eliminating the importance of energy users as agents. The next step, engaging with targeted individuals, provides a second problem for a deliberative approach in participative appraisal. When using the consultation mode, participants can 'self-select' if the consultation is advertised broadly, or they can be targeted. In any procedure for targeting participants the size, scale and particularly timescale of an appraisal may lead

to pragmatic selection of actors that is not representative. Some actor segments may be omitted and others over-represented. Indeed, some actors may only be willing to engage within their own peer groups, which may be difficult if the number of physical events is restricted, as is often the case in a funded research project. The important issue is that a careful selection procedure ensures that the stakeholders engaged in the appraisal maximises and secures ‘output legitimacy’ (i.e. effective problem solving and usefulness of the appraisal outcomes for policy) as well as ‘input legitimacy’ (balanced representations of interests, fair, transparent procedures) (Bäckstrand 2006).

In a complex system with many different actors and perspectives such as in electricity sector, these known difficulties of stakeholder selection for participatory appraisal become even more complicated and critical.

CONSULTATION AND DELIBERATION IN THE ELECTRICITY INDUSTRY

What evidence exists from the electricity sector of the uses of deliberation? What does it have to offer compared with consultation?

As described earlier, deliberative methods have been adopted by policy makers to consider criteria for disposal of nuclear waste and other contentious issues. One influential work using deliberation with energy stakeholders was the COOL project. The Climate OptiOns on the Long term project was a Dutch integrated assessment project supporting the development of long-term climate policy in the Netherlands in a European and global context, which was completed in 2001. The main objective of this project was to develop ideas for strategies on how to achieve drastic reduction in greenhouse gas emissions in the Netherlands in the long term, in a European and global context, using a participatory approach. It included the sub-project referred to as the National Dialogue. One of the most striking issues at the start of the project was the differing positions of the stakeholders, not in respect of the acceptance of climate change science, but of policy options for mitigation. The DGM (Directorate for Environmental Protection) “had the opinion that lifestyle changes and renewable energy would not be sufficient to achieve drastic reductions of CO₂ emissions.... the stakeholders needed to become aware ... that technology could do the job at relatively low costs” (van de Kerkhof 2004, p97). However, other actors in society came to the discussions with different perspectives, ranging from potential resource scarcity to lifestyle changes, from business opportunities for renewables to wider concerns about sustainable development.

The National Dialogue ran in three phases from 1999 to 2001, with stakeholder dialogue at different levels of intensity throughout. There were four groups of stakeholders, one of which was the Industry and Energy group. This group showed a high degree of commitment 70 % attendance over the phase of the first 6 participation workshops and 65 % at the final two plenary workshops, which were optional for them to attend. One of the questions for the research team was the quality of the argumentative process, which was based on the diversity of arguments, or constructs used in the analysis of the problem, described by dialectic, which is a debate around the contradictory viewpoints on the topics. The dialectic used by the Industry and Energy Group is shown in Table 2.

Table 2: Constructs that came out of Repertory Grid analysis in the National Dialogue of the COOL project (Source: van de Kerkhof 2006b, p24)

Dialectic of the constructs	
High cost effectiveness	Low cost effectiveness
Need for technical innovation	Option already available
High societal support	Low societal support
Central level	Decentral level
Supply side	Demand side
Renewable energy	Fossil energy
No safety risks	Option not fully safe
Broadly applicable	Limited application
Focus on direct CO ₂ reduction	Energy efficiency
Permanent CO ₂ reduction	Temporary CO ₂ reduction
High innovation potential	Low innovation potential
Secure energy supply	Risk of shortages
High spatial constraints	Low spatial constraints
Controllable by government	Not controllable
Need for incentives	No need for incentives
Source oriented	End-of-pipe oriented

This dialectic was interpreted as a set of criteria for climate policy dominated by the claim for long-term climate policy not to focus on a specific technology, leaving options open – these were supported by criteria on CO₂ effectiveness, cost effectiveness, and market conformity. Selection of options by market mechanism was also important, but there was recognition that there could be a possible conflict between cost effectiveness and sustainability, between CO₂ effectiveness and innovation potential. Cost effectiveness was seen as cost per tonne of CO₂ reduced, whereas the Building group prioritised cost effectiveness based on the cost per tonne of sustainably reduced CO₂. These conflicts in priorities for the different groups required further deliberation to come to a societally agreed set: the Housing and Construction group prioritised sustainability, social support and consumers freedom of choice; Agriculture and Nutrition selected societal support, sustainability and cost effectiveness, whereas the Traffic & Transport group selected cost effectiveness and climate awareness (van de Kerkhof, 2006b). One of the overall outcomes of this intensive process of deliberation for the project as a whole was that in the final stages of the Dialogue, the stakeholder participants had rather fewer problems making choices under scientific uncertainty than the scientists, provided the assumptions on which the choices were made were transparent and acceptable to them.

In the ADAM project, the case study of the application of the PAF to the electricity sector aims to contribute to openness and transparency in climate change policies by increasing understanding of stakeholder values. It also aims to increase understanding of methodologies for increasing social acceptability of long-term climate policy.

The first stage of this case study is to survey an initial group of stakeholders to identify what policy options they consider most desirable and feasible, and determine on what basis they make that judgement. This will test the mapping of electricity actors perspectives in the ADAM project as shown in Table 1, before experimenting on the acceptability of alternative options in a deliberative process. The problem for the project, as indicated above, is whether too narrow an initial selection of

Table 3: Constructs derived from perspectives in the electricity sector

Dialectic of the electricity sector	
Development of new technology	Technology available
Sufficient electricity to meet constrained demand	Capacity to meet forecast growth
Transmission & distribution network open access	Network closed and tightly controlled
Direct reduction of CO2 emissions	Energy efficiency
Cost effective CO2 reductions	Fundamental CO2 reduction
Consumer Protection	No societal concern
Business threat	Business opportunity
Regulatory requirements	No regulatory requirements
Reliable supply	Constraints on availability
Diverse energy mix	Constrained energy mix
Environmental footprint of products	No concern over environmental claims
Energy price constraints	Market decides
Removal of unfair subsidies	Market decides
Competitive regulated EU electricity market	Global unregulated market
Socio-economic benefit	No concern for community
Competitiveness of manufacturing sector	Market decides
Access to international markets	European market
Availability of fuel within EU	Import dependence
Legislative burden/assistance	Limited legislative framework

stakeholders will bias the perspectives included in later phases of the project. One of the strengths of the PAF is that it is designed as an iterative approach, so that outcomes of an initial appraisal can lead to a re-scoping of the system using the insights gained from the first iteration, and a reframing of the problem for further investigation. The criteria analysed so far therefore cover the points shown in Table 3 (presented in the same dialectic format as Table 2).

There are a considerable number of these constructs that relate directly to the current operation of the EU's internal electricity market. The proposals in the Energy Policy for Europe (EC 2007a) and in the report of the Inquiry into the European gas and electricity sectors (EC 2007c) recognise that in order to meet the climate change objectives, the internal energy market needs to be fully functioning. Consequently, a number of actions have been proposed for implementation in the next three years in order to enable the target of 20 % reduction by 2020 to be reached. This affects analysis of perspectives of the electricity actors on climate change by removing transmission issues, this interpretation being shown in Table 4. At this stage, the criteria appear to be less dominated by technical concerns, and arguably becomes a set with appeal to a wider set of sectoral stakeholders. The dialectic becomes more clearly differentiated into supply versus demand, environmental credentials of products, and social aspects. The set seems more directed towards three pillars of sustainable development.

It is this concern over the wider interests of stakeholders that is now at the heart of the argument. As shown in the COOL dialogues, even closely associated groups can have widely different priorities as a result of their differing perspectives. These criteria can be tested within the PAF through a series of deliberative exercises, refining them with stakeholders through debate. However, if the PAF is applied to the group of stakeholders selected in the previous section, does it cover all those groups who are engaged with the debate? As an academic research exercise it can provide valuable information constrained to the views of that set of stakeholders, but as a European project

does it provide appropriate, valid information from the 'right' stakeholders? This returns us to the debate over selection of stakeholders, the transparency, representation and validity of the choices, and whether a set of policies based on the criteria agreed by one group can be socially acceptable to the wider community.

Are energy efficiency actors influential?

The main contention of this paper concerns the influence of energy efficiency stakeholders in new policy development. If policy makers need to find policies for climate change mitigation and adaptation that are socially acceptable in order for them to achieve their objectives, then what is the role of energy efficiency stakeholders in determining social acceptability of energy policies? Will these tools in development (such as the PAF) affect the level of influence the actors currently exert? And does the power and influence of vested interests in the energy sector negate the process of participatory approaches anyway?

Starting with the perception of the influence of energy efficiency stakeholders, the contention of the rubric of Panel 1 appears to suggest that other stakeholders are perceived to be more influential than energy efficiency ones. "... many of the powerful actors have since long determined their agenda and have concluded that they have a lot to lose and only little to gain from radical rethinking. In the world of energy research and policy our reaction has been to identify barriers to energy efficiency and attack many of them successfully" (ecee, 2006). Based on previous experience the perception of a proposed integrated energy policy is that energy efficiency will be overshadowed by energy supply (Nilsson, 2006). Even if the words are there, "three central pillars; a true internal energy market; accelerating the shift to low carbon energy, and energy efficiency" (EC 2007d) somehow it is difficult to believe that energy efficiency will really get the attention needed when the investments start to be required.

Table 4: Analysis of more strategic concerns assuming Internal Energy Market fully operational

Dialectic of the electricity sector	
Development of new technology	Technology available
Supply side	Demand side
Direct reduction of CO2 emissions	Energy efficiency
Cost effective CO2 reductions	Sustainable CO2 reduction
Consumer Protection	No societal concern
Business threat	Business opportunity
Diverse energy mix	Constrained energy mix
Environmental footprint of products	No concern over environmental claims
Competitive regulated EU electricity market	Global unregulated market
Socio-economic benefit	No concern for community
Competitiveness of manufacturing sector	Market decides
Access to international markets	European market
Availability of fuel within EU	Import dependence
Government control	Not controlled

The Energy Policy appears to have taken full account of the consultation on the EU Green Paper on Energy Efficiency (EC, 2005) which resulted in the Energy Efficiency Action Plan (EC, 2006). This suggests that energy efficiency stakeholders are being effective in promoting their values, views and interests. The combination of consultation and lobbying by businesses and interest groups seems to have been influential, although the power of the Energy Commissioner in support of efficiency is undoubtedly a major asset. Research on the combination of business and NGOs indicates that this can be a very successful strategy on a wide range of societal issues, depending on the nature of the governance regime (Risse-Kappen, 1995), and the EU regime is appropriate for collaborative approaches. However lobbying is effective only as long as pressure is maintained, so there is no need to give up yet, as collaboration between COGEN Europe, CECED, EURIMA and others demonstrates (COGEN, 2006).

The benefit of consultation and lobbying for any stakeholder is that they can opt in to a debate. The process of selection of stakeholders is 'self selection'. In environmental issues, and particularly in energy efficiency, the wide variety of organisations involved, especially smaller ones, encourages the belief that more involvement is better. The problem for policy makers is that anyone can join, and any control of whose responses to give weight to is subject to complaints of lack of transparency and bias, the very things that a good stakeholder consultation exercise should seek to avoid. As discussed earlier, the use of deliberative approaches is partly in response to the need to overcome lack of transparency and to ensure that all the stakeholders in a system of reference, such as the energy system, are adequately represented. However, it can also mean that only those stakeholders who have time to commit to the extended interaction required in a deliberative exercise participate. Commitment may be prompted if stakeholders perceive they are not adequately represented by the regime in power. On the other hand, the selection of stakeholders is critical to fairness and transparency if deliberation is adopted by policy makers. Consultation may exclude or include certain actor groups due to self-selection, but this may equally be the case with deliberation. And do actors such as major commercial companies, who already exert power and influence, need to commit the

time necessary for deliberative approaches? Earlier research on the reasons why businesses attend stakeholder workshops and seminars suggested that it was solely to *promote* their interests (Newell, op. cit). However, it is now suggested that they engage in more participative approaches to not only *ensure representation* of their interests, but also promote network building, enable them to influence the scientific and/or policy agenda, gain insights in the newest scientific findings and learn from other stakeholders (van de Kerkhof 2004). The COOL exercise included major companies, but this was a national debate that was not expected to be repeated in the short term. Consultations, on the other hand, seem to be continually available if a 'hot topic' is under examination. Companies choose whether to devote resources full time to these consultations, or to be selective about which responses to make. The role of trade networks in lobbying and representation becomes vital.

Other researchers have suggested that the line of demarcation between consultation and deliberation does not really exist, that there is a continuum of policy debate in participation, within which the negotiation of parties plays an important part (van Hove 2004). It is into this area that vested interests become most relevant, as negotiation, if based on transparent criteria rather than 'behind closed doors' discussions, becomes part of the deliberative process. In an integrated assessment such as the PAF, this then becomes incorporated into the assessment, increases social learning, and may lead to the reframing of the question itself.

If use of deliberative approaches led to the development of an agreed set of criteria on which to develop the energy aspects of climate change policy then actors from both demand and supply sides would surely engage with the process. Do energy producers and energy efficiency actors differ on their approaches to consultation issues? Can these form an agreed set of criteria for deliberative approaches? The derivation of the dialectic in Table 4 suggests that the debate is worthwhile.

Conclusions

The perspectives of all the actors in the energy sector, including users, represent such different value systems, and have such varied overarching objectives, that it is not surprising that con-

sultation responses leave policy makers with an information overload. However mapping perspectives suggests that there is more common ground than might at first be obvious, and the traditional supply-demand side rift may be illusory.

Consultation processes and lobbying continue to form the tools by which interest groups can exert their influence on policy makers, but in order to develop policies which are more acceptable to society, new methods of agreeing the criteria for debate should be adopted. These methods, such as the PAF, gather knowledge embedded in society in a structured way and integrate it with other forms of knowledge. Radical change may not be easily supported by policy makers, but if the criteria are agreed upon through deliberation, far more radical moves might be made acceptable. If the criteria are known and understood, actors are more likely to be able to accept that some things will get worse to make others better (van de Kerkhof, 2006a). This becomes even more important if there are 'winners' and 'losers' from climate change policies.

The suggestion that energy efficiency actors are currently disadvantaged in the process does not appear to be born out by the policies proposed by the EU, but a major deliberative process could identify the agreed constructs, points of contention and establish clear criteria by which policy will be assessed. EU policy needs to be seen to be supported by societal actors, especially if new initiatives such as international energy efficiency agreements are to be adopted globally. These criteria need to be transparent and agreed by other regimes outside Europe, thus overcoming one of the major barriers in the Kyoto process, the application of environmental justice. Deliberation provides a valuable mechanism, but it will take time and commitment from all parties, and an inclusive selection of stakeholders, to make it worthwhile.

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