

Transition management and institutional reform

A transition to a sustainable energy system involves more than developing new technologies; institutions ensuring the proper functioning are also necessary. With this in mind, Daniel Scholten examines what the Dutch transition management policy has achieved in terms of institutional reforms so far.

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INCREASING FOSSIL FUEL SCARCITY and deteriorating environmental conditions urge for a transition towards a more sustainable energy system. Behind this simple notion lies a very complex reality however: such change does not only involve technical and economic aspects but also institutional reforms. As many scholars have already noted, to be effective with new technologies, 'a nation requires a set of institutions compatible with and supportive of them. The ones suitable for an earlier set of fundamental technologies may be quite inappropriate for the new' (Nelson 1994: 58). Indeed, history is full of examples where existing institutional structures pose an obstacle to the success of new technologies and complementary industries which 'require institutional reform if they are to develop effectively.'

Consider in this respect that the Dutch cabinet restated its ambition to achieve a sustainable energy system in the Energy Report 2004. It also adopted 'transition management' as the official governance framework for the energy transition. The question arises, what has transition management so far been able to achieve with regard to institutional reform? On the one hand, transition management is a promising approach because it addresses technological innovation processes within their wider institutional and societal context, claiming that changes in one without the other will remain fruitless in the long run. On the other hand, transition management is a novel policy perspective that has yet to prove itself in practice.

Promises and practice

Bruggink (2005: 6) classified an energy transition as a process of 'socio-technical evolution in which economic, institutional and technological structures develop interactively and change drastically in the long run.' To manage such a societal transformation, transition management treats institutional design as an innovation process where technologies and institutions co-evolve and intend to inject 'goal-directing processes into socio-technical transformations' (Kemp and Loorbach 2006: 22). Thus, transition management is more a governance perspective than an instrument to obtain predefined policy outcomes. Key in the proposed method are energy transition platforms where various public and private stakeholders continuously readdress visions, transition paths and experiments in an iterative and reflexive manner consisting of four phases: 1) organising a multi-actor network, 2) developing sustainability visions and transition agendas, 3) mobilising actors and executing projects and experiments, and 4) evaluating, monitoring and learning (Kemp and Loorbach 2006: 17). Finally, once a dominant technology emerges transition management advocates 'control policies to put pressure on the existing regime [...] to bring about transitions' (Kern and Smith 2008: 2). This focus on the institutionalisation of new technologies poses a step forward from the energy policies of the 1990s based on bottom-up, market oriented approaches because it not only looks at market incentives and technology push policies, but also tries to create a framework where government policy makers, industry stakeholders, NGOs and scientific institutes actively pursue accompanying institutional changes to ensure the emergence of a new energy system.

The Fourth Dutch National Environmental Policy Plan (2000) is the starting point for both a transition towards a more sustainable energy system and the introduction of transition management as the governance framework. The Ministry of Economic Affairs (EZ), in charge of energy and innovation policy, has taken the role of 'transition manager'. The heart of the energy transition project is currently based on seven

transition platforms where public and private actors meet to develop shared visions, pathways and experiments: new gas, chain efficiency, green resources, sustainable mobility, sustainable electricity, the built environment and the greenhouse as energy source (SenterNovem 2009).

Most of the seven themes stem from consultations among existing energy sector incumbents and scenario studies conducted under the long-term energy supply strategy project drawn up in 2000 (Kern and Smith 2008: 3). In addition, EZ started in 2002 with the Project Implementation Transition management which aimed to find out whether the various themes would have enough 'support, enthusiasm and commitment' from the relevant stakeholders (Kemp and Loorbach 2006: 19). The beginning energy transition also led to the government looking for new energy policy instruments and redefining its relationship with society and business (Kern and Smith 2008: 4).

After these initial developments, the Ministry of Economic Affairs started to develop the themes into strategic visions in 2003-2004. To this end, public-private transition platforms were established for each theme and were tasked to work out 'possible transition pathways along which an energy transition can be achieved' (Kern and Smith 2008: 3). The platforms consisted of stakeholders recruited from existing policy networks. Since 2005 the first transition pathways have been explored in technological niche experiments carried out by stakeholder coalitions.

2005 also saw two major organisational changes to the energy transition project. First was the introduction of the energy transition taskforce made up of high-level members from Dutch industry and the public sector to complement existing platforms. Second was the creation of an inter-departmental energy transition directorate encompassing civil servants from various relevant ministries.¹ While the taskforce is essentially an advisory group that oversees the transition process, identifies strategic directions and aims to 'strengthen the role of the platforms' (Kern and Smith 2008: 3), it is hoped that the directorate will integrate transition and other ongoing policies.

On 25 February 2008 the *regieorgaan energietransitie* or energy transition directing organ succeeded the taskforce as the leading body of the energy transition for the coming five years (SenterNovem 2009). The organ consists of seven platform chairmen, three independent members and the organ's own chairman. Its main task is to advise the government how to best facilitate the market, create support for the transition by public and private actors, guard the coherence among the various platforms and experiments, and prioritise promising pathways. Whereas the taskforce aimed at sketching ambitions, planning visions and creating a high profile for the transition, the organ focuses on the execution and has therefore a more directing character.

Assessing institutional reform

Institutional reform has so far largely been neglected in the energy transition project. The core cause of this neglect is often ascribed to the over-representation in the transition platforms of stakeholders in the existing energy sector (Kern and Smith 2008: 7; Loorbach et al. 2008: 311-312). This is perhaps not surprising since transition stakeholders were mostly selected from the existing energy sector incumbents to begin with. Indicative of this is Shell's prominent position within Dutch energy transition policy; it holds the chair of the energy transition taskforce, and has representatives on the various transition platforms. Unfortunately, this dominance of business actors has led to a situation where platform members are urging for investments that primarily benefit themselves. Consequently, the focus of the platforms has been on more immediate and attainable technical and economic goals, such as CO₂ storage technologies or using hydrogen for the 'greening' of natural gas. More advanced options for the long-term, that might produce more favourable outcomes, like a transition to the use of hydrogen as a motor fuel, have been neglected. Consequently, most of the seven platform themes represent innovations that are complementary to or an extension of existing energy technologies.

The focus of transition management seems to be on incremental optimisation rather than developing radically new technologies. While this may turn out not to be a problem – the accumulation of small steps can result in big change – it is more likely that the gradual process ends in incremental change; that is to say, changes which conform to the existing technological regime.

Prospects for institutional reform

We can put transition management's neglect of institutional reforms squarely into the hands of policy makers, who failed to include sufficient innovative newcomers in the platforms.

The obvious remedy lies in the expansion of niche market actors (such as renewable energy companies with no stake in the current energy infrastructure), NGOs and other societal groups. However, in defence of policy makers, it may still be too early to assess transition management's track record on institutional reform. In the early phases of a transition the focus is on exploring and developing technical alternatives. This renders institutional change premature as one does not know which technology is going to be the next big thing and, in turn, which institutional requirements need to be fulfilled.

Hisschemöller et al. (2006: 1234) approach the issue from a different angle. They state that transition management 'reveals an institutional bias in that it articulates opportunities for collaboration and competition in a particular way, thereby creating a context for policies, regulations, and instruments.' Consider in this respect that the government plays the role of a facilitator and not an authority. Finding consensus among stakeholders might inhibit quick and responsive decisions, consequently leading to a more incremental change process favouring business as usual options. As such, stakeholder dialogue on innovation might inhibit exactly what it aims to achieve: innovation. Hisschemöller et al. (2006: 1234) hypothesize further that 'the more complex infrastructure requirements, the greater the likelihood that major government interventions will be needed' and doubt whether low profile governance is able to really include advanced technical options into the energy transition project.

As technical change has economic repercussions, struggles between incumbent industry actors and innovative newcomers are an important dynamic behind the emergence of new technologies and accompanying institutions. Transition management addresses these struggles during 'institutionalisation' but does not address how these struggles influence and condition policy options, formulation and implementation beforehand. As such, the transition may well be determined by politics before it gets started.

Summing up, the key problem in assessing the lack of institutional reforms seems to be whether the cause is decisions by policy makers that can be remedied in the future or that transition management itself is inherently biased and that therefore improvements are unlikely to occur. Although this could serve as closure on transition management's efforts concerning institutional change, there is one thing I feel is sincerely neglected in the debate so far. There has been no serious attempt to address the two difficulties in aligning institutions to technologies as developed by Nelson (1994: 61): a) it is not yet clear how various institutions can be represented so as to compare them to technologies in order to align them; b) it is unclear how the (social) (co) evolutionary processes involved in changing institutions, can be operationalised (and influenced). On both accounts transition management has made no relevant effort to date.

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Notes

1. Economic Affairs (EZ); Housing, Spatial Planning and the Environment (VROM); Transport, Public Works and Water Management (V&W); Agriculture, Nature and Food Quality (LNV), Finance (Fin); Development Cooperation (OS) (part of Foreign Affairs).

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