



Regulatory
Institutions
Network

What roles are there for government in voluntary environmental programs?

Jeroen Van der Heijden
Regulatory Institutions Network
Australian National University

RegNet Research
Papers

2015 No. 70

Abstract

This article seeks to understand to a greater extent why and how governments are involved in voluntary environmental programs (VEPs). A better understanding of the role(s) of government in VEPs is of relevance because the current VEP literature considers such involvement one of the key conditions that may explain VEP performance. Building on the existing VEP literature, the article maps, describes and contrasts the roles of governments in 40 VEPs in the building sector in Australia, the Netherlands, Singapore and the United States. It finds that governments are involved in almost all of these VEPs (95 per cent) and that governments predominantly take up traditional roles (i.e. initiating and leading VEPs and monitoring and enforcing VEPs), sometimes combined with innovative roles (i.e. supporting VEPs, or assembling VEPs). This, the article argues, leaves opportunities for other modes of involvement unexplored, particularly those in which governments take up only innovative roles in VEPs.

Keywords

voluntary environmental programs, urban governance, governance performance, urban sustainability, built environment

Citation

This paper can be cited as:

Van der Heijden, Jeroen. 2015. 'What roles are there for government in voluntary environmental programs?'. *RegNet Working Paper*, No. 70, Regulatory Institutions Network.

The RegNet Research Paper Series is published electronically by the Regulatory Institutions Network (RegNet) at the Australian National University. Find out more about our work at regnet.anu.edu.au

© Copyright is held by the author or authors of each research paper. Electronic and paper copies may be made of a research paper, but its format may not be altered in any way without the author's permission.

Note: The views expressed in each paper are those of the author or authors of the paper. They do not represent the views of the series editor, RegNet, or the Australian National University.

Series Editor: Dr Jeroen van der Heijden

Please forward any feedback, submissions or requests to: jill.mowbray@anu.edu.au or regnet@anu.edu.au.



WORKING PAPER- A later version of this paper has been accepted for publication in Environmental Policy & Governance.

What roles are there for government in voluntary environmental programs?

Jeroen Van der Heijden, Regulatory Institutions Network, Australian National University

Introduction

Policymakers, practitioners and scholars alike have become increasingly interested in innovative approaches to environmental governance (for recent discussions in this journal, see among others Jordan & Lenschow, 2010; Klassert & Möckel, 2013; Steurer, 2011; Taylor, Pollard, Rocks, & Angus, 2012). Such innovations show a shift away from traditional prescriptive 'command and control' type environmental regulation towards governance tools that encourage self-organisation, market solutions, or both (Gunningham, Kagan, & Thornton, 2003; Wurzel, Zito, & Jordan, 2013). They also fit with a shift away from sole state authority towards the involvement of non-state stakeholders in environmental governance (e.g., Ansell & Gash, 2008; Trubek & Trubek, 2007).

Voluntary environmental programs (VEPs) are a typical example of innovative environmental governance tools. Individuals and organisations participating in VEPs pledge to change their behaviour in such a way as to create desired societal outcomes beyond what is required by state-led regulation. In return for this they receive exclusive rewards, such as the branding of their goods and services, or the ability to showcase industry leadership (deLeon & Rivera, 2010; Morgenstern & Pizer, 2007; Potoski & Prakash, 2009).

VEPs are considered a hopeful alternative to state-led environmental regulation. It is expected that the clear rewards for participants make them willing to participate in VEPs and comply with a VEP's requirements (see various discussions in Croci, 2005; Mol, Volkmar, & Liefferink, 2000; Potoski & Prakash, 2009). However, whether VEPs indeed live up to these expectations is a topic of much debate. Whilst some studies point towards successful VEP performance in terms of improved environmental behaviour on the part of VEP participants or an overall contribution to desired collective ends (Cashore, Auld, & Newsom, 2004; Morgenstern & Pizer, 2007), other studies find no or at best limited VEP performance in such terms (deLeon & Rivera, 2010; Ronit, 2012). These empirical studies highlight that various contextual and design conditions affect VEP outcomes and scholars have repeatedly stressed that a better understanding of these conditions is key for future VEP assessments (Prakash & Potoski, 2012; Van der Heijden, 2012).

One such condition that is of particular interest is the role of governmental actors in VEPs. Many real world VEP examples indeed show some form of government involvement, or are even fully developed and implemented by governments (deLeon & Rivera, 2010; Ronit, 2012). Furthermore, some studies point out that it is government involvement in VEPs that may make the difference between good performance and poor performance (see various case studies in deLeon & Rivera, 2010; Morgenstern & Pizer, 2007; Ronit, 2012). Yet, despite increasing attention concerning the role of governments in VEPs, systematic analyses of such involvement are as yet lacking. To be able to assess whether governmental involvement in VEPs does indeed contribute to desired VEP outcomes, it is necessary, at the very least, to know why and how governments are involved in these innovative governance tools. From here on, future studies can then seek to understand the relationship between government involvement in VEPs and VEP outcomes.

This then is the aim of this article. Informed by the current VEP literature, it systematically studies a stratified sample of 40 VEPs in the building sector in Australia, the Netherlands, Singapore and the United States, seeking to understand what 'governmental involvement' implies in real world VEPs. In doing so, this article contributes to a growing literature on VEPs, but it also adds to broader debates on the changing roles of the state in addressing environmental risks (Bell & Hindmoor, 2009; Giddens, 2009; Holley, Gunningham, & Shearing, 2012; Wurzel et al., 2013). After all, the involvement of governments in VEPs goes against an oft made claim that the state has retreated in governing (Rhodes, 2007) and would fit better with claims that the role of the state has changed (or is changing) rather than that it has diminished (Braithwaite, 2008).

The article is structured as follows. The next section brings together the existing literature on the roles of governmental actors in VEPs. The following section briefly discusses the research design and the approach to data analysis. The fourth section presents the research findings and a final section concludes.

The roles of state actors in VEPs

The role of governmental actors has been discussed to some extent in the VEP literature. Four questions drive this part of the literature: Why would governments wish to be involved in VEPs? Why would non-governmental actors wish to have governments involved in VEPs? What role(s) do governments take up in VEPs and, relatedly, how does governmental involvement affect VEP outcomes?

Governments may seek to be involved in VEPs for various reasons. VEPs provide a vehicle for taking action in situations in which it is too costly or difficult to implement direct regulatory interventions, for instance due to a political unwillingness to do so (Darnall & Carmin, 2005). In such situations, VEPs may be used to test (future) policy interventions in an experimentalist manner, seeking to draw lessons on the impact of such (future) interventions (De Búrca & Scott, 2006). VEPs also provide an opportunity to showcase and market desired 'beyond compliance' behaviour, or a means of rewarding

leading firms (Saurwein, 2011). VEPs further open up the opportunity to collaborate closely with the regulated sector without forcing the latter to be involved in such collaborations (Hofman & De Bruijn, 2010).

Similarly, there are several reasons why non-governmental actors may seek government involvement in VEPs. Government involvement may provide legitimacy to VEPs in the eyes of the wider public (Solomon, 2008) and governments may be considered neutral actors by non-governmental participants, leading the latter to be more willing to become involved (Kickbusch, Hein, & Silberschmidt, 2010). Non-governmental actors may further seek to involve governments hoping to build close relationships which could help them to influence the direction of future policies (Barrett, 1991). They may seek governmental involvement to reduce the costs of developing and implementing VEPs, to reduce information asymmetries between VEP participants and other stakeholders and to disseminate VEP results to a wide audience (Delmas & Terlaak, 2001; Lobel, 2004). Also, it is often considered that non-governmental actors become involved in VEPs seeking to prevent the implementation of future state-led legislation (Reid & Toffel, 2009). By involving governments in such VEPs, non-governmental actors could then highlight that they do indeed take action.

Governments are found to take up a wide range of roles in VEPs. Some of these reflect somewhat traditional roles, whereas others reflect more novel ones. Broadly, the traditional roles discussed in the literature can be distinguished as 'initiating and leading' and 'monitoring and enforcing'. The involvement of governments as initiators and leaders of VEPs is repeatedly considered necessary to help (potential) participants of VEPs find one another, to merge diverse interests and to ensure that a group of actors will, in collaboration, reach relevant and effective solutions (Davis, 2002). Scholars argue that without such leading and initiating, non-governmental actors may lack the cohesion and co-ordination needed to achieve their intended ends (Lobel, 2004).

Scholars also point out that monitoring and enforcement is key to a VEP's success (Lyon & Maxwell, 2007; Short & Toffel, 2010). Without meaningful monitoring and enforcement, VEPs are not expected to achieve their intended outcomes (Bailey, 2008). Various forms of monitoring and enforcement are pointed out in the literature as having different impacts on VEP performance. For instance, self-monitoring by participants is considered a weak form of monitoring and enforcement, whereas third party involvement is considered a strong form (Potoski & Prakash, 2009). Governments may be involved in VEPs as a third party to monitor and enforce the behaviour of VEP participants because of their experience with monitoring and enforcing traditional regulation (Bartle & Vass, 2007; DeMarzo, Fishman, & Hagerty, 2005).

Of course some nuancing is necessary. There may be a very thin line between traditional state-led regulation and VEPs in which governments take up both initiating and leading roles, and monitoring and enforcing roles. There also remains the question of whether governments with often already limited monitoring and enforcement capacity will in fact be able to carry out this role successfully in

VEPs and whether they would indeed sanction non-compliance by VEP participants as this may scare off prospective VEP participants (Potoski & Prakash, 2009).

The novel roles of governments in VEPs discussed in the literature can broadly be distinguished as 'supporting' (cf., Giddens, 2009) and 'assembling' (cf., Overdeest & Zeitlin, 2012). Governments may be in the right position to support VEPs, even when they do not take up any other role in VEPs. Support for VEPs from governments can come in various forms. They can support VEPs financially by providing monetary incentives, for instance through reduced environmental taxes for VEP participants (Croci, 2005). They can also provide administrative or in-kind support by providing staff or office space to non-governmental VEP administrators (Croci, 2005). Alternatively, they can (indirectly) support a VEP by threatening that future regulatory interventions will be put in place if a VEP turns out to be unsuccessful in addressing an environmental problem (Reid & Toffel, 2009). Finally, governments may support VEPs by requiring their suppliers of goods and services to participate in a particular VEP, or at least to provide them with goods and services that meet requirements comparable to those provided through a particular VEP (Hofman & De Bruijn, 2010).

With ongoing growth in the number of VEPs, governments are sometimes thought to be best positioned to maintain an overview of these and to ensure their cohesion and capacity to address societal problems (Davis, 2002). They are also considered necessary to prevent VEPs coming into conflict with existing laws and regulations, or with the broader public interest (cf., Gunningham, 2009). More importantly, by keeping a birds-eye view on VEPs, governments may be able to see possible synergies between various VEPs, between VEPs and statutory regulation, or between participants in VEPs, and may try to ensure that such synergies actually materialise (Van der Heijden, 2013). This role is broadly captured as 'assembling' in this article (cf., Overdeest & Zeitlin, 2012).

In what follows, the various roles of governments in VEPs are explored further.

Research design: VEPs in the building sector

In order to understand how the roles of governments in VEPs play out in real world settings, a comparative qualitative analysis was carried out with a series of 40 VEPs (cases) that all seek improved environmental performance in the building sector in Australia (13 cases), the Netherlands (8), Singapore (4) and the United States (15). The buildings sector here is defined as the construction, maintenance and use of buildings. All the VEPs studied seek to reduce carbon emissions in this sector, predominantly by seeking reduced energy consumption.

The building sector is a relevant area to consider and is also key in addressing complex environmental problems, including climate change (IPCC, 2014). The sector accounts for approximately 35 per cent of global carbon emissions, but technology is already in place to make cost-effective reductions of up to 50 per cent (Newman, Beatley, & Boyer, 2009). This makes the building sector one of the few sectors in which considerable change in terms of reduced carbon

emissions is possible in the short term (IPCC, 2014). The sector is also the context for a wide variety and a large number of VEPs in which state actors take up a variety of roles, yet VEPs in this sector have only recently begun to attract scholarly attention (Hoffmann, 2011; Van der Heijden, 2014) and are much less studied than VEPs in areas such as forestry (Cashore et al., 2004) or fishery (Gullbrandsen, 2010).

The countries were selected to include some variety in contextual settings in this study, aiming to gain insight into whether country context explains (variety in) governmental involvement in VEPs. Country choice for the current study was theory driven, but partly limited by practical constraints (time and money). The Netherlands represents a context of a country with a history of progressive environmental legislation, and a long history of experimenting with alternative policy instruments (Wurzel, et al., 2013). The United States also represents a context of a country with a long history of VEPs, including in the building sector (Morgenstern & Pizer, 2007). Australia represents a context of a country in which the adaptation of VEPs is relatively young, especially compared to the Netherlands and the United States (Beatley, 2009). Singapore, finally, was chosen as it is a country that has begun to explore VEPs, but provides a somewhat different institutional setting than the three other countries – i.e. state-guided economic development (Huff, 1995).

3.1 *Research approach and methodology*

Cases were identified based on an extensive Internet search using key words such as ‘sustainable development AND [country]’, ‘sustainable building AND [country]’ and ‘green construction AND [country]’. All 40 cases selected explicitly address the environmental and resource sustainability of buildings and their users. Furthermore, all the programs had been in operation for more than two years at the time of study. It was expected that the VEPs would need some time to achieve outcomes. Whilst case performance as well as the role(s) of governments in the cases may have changed over time, this was not included in the selection of cases. In interviews (see below) changes over time were addressed.

Having selected the 40 cases, they were clustered (for heuristic purposes) according to their design, which resulted in five dominant types of VEP design within the study. Table 1 gives a brief overview of the specific types of VEPs studied, as well as an example of each type. It is necessary to point out that this is a broad brush typology, which inevitably does injustice to the wide variety of VEPs studied. The types are: partnerships between government and non-governmental actors, certification schemes, competitive grants, novel forms of contracting, and a suite of VEPs that seek to overcome financial or legal barriers.

TABLE 1 ABOUT HERE

In order to understand the development and implementation process of the VEPs, in particular the role of governments, a series of in-depth face-to-face interviews were carried out. Interviewees were selected for their expert knowledge of and experience with one or more of the VEPs studied. A total of 138 interviewees (53 in Australia, 27 in the Netherlands, 28 in Singapore and 18 in the United States) from various backgrounds participated in this study, representing the dominant roles and positions of actors in the building sector, i.e. policy makers, administrators, investors, developers, architects, engineers and property owners. These interviewees fulfilled (or had fulfilled) key roles in the VEPs studied, for instance as initiator, administrator or participant, or were considered by their peers as expert on one or more of the VEPs studied.

The interviews were based on a semi-structured questionnaire which provided a structure of checks and balances to assess the validity of the data. Throughout the interviews, specific topics, particularly the role of governments in the VEPs, recurred by posing differently worded questions. Also, insights shared by interviewees were validated in other interviews with other participants. The interviews were recorded and transcribed in a report that was sent back to the interviewees for validation. The interviewees were often aware of and involved in more than one case. It is expected that this (partly) helped to overcome a sampling bias of administrators (and participants) who were overly enthusiastic about their 'own' VEP. Table 2 provides a brief overview of the interviewees.

TABLE 2 ABOUT HERE

A document study of existing information on the 40 cases and existing research on VEPs was carried out to cross-check the validity of the interview data and to supplement these with additional insights.

The data were processed by means of a systematic coding scheme and qualitative data analysis software (*Atlas.ti*). By using this approach, the data were systematically explored and insights were gained into the 'repetitiveness' and 'rarity' of experiences shared by the interviewees, as well as those reported in the existing information also studied. This allowed in-depth understanding of the individual cases and it further assisted in tracing across-case patterns in the data.

This is a qualitative study building on a stratified sample of 40 cases in a stratified sample of four countries. It is expected that the large number of cases and the variety of countries opens up a sufficient window to help gain a better understanding of the role of governmental actors in VEPs, but it is not claimed that the sample is (statistically) representative for all the VEPs and countries in the world (cf., Hoffmann, 2011).

The role(s) of state actors in the 40 VEPs

Table 3 gives an overview of how governments are involved in the 40 VEPs analysed. The table indicates that in almost all VEPs, governments take up at least one role (38 out of 40 cases; 95 per cent), and that in a large majority of the cases governments take up at least two roles (29 cases; 73 per cent).

TABLE 3 ABOUT HERE

It logically follows that with the four roles identified in the second section of this paper, a total of 16 possible combinations of roles for state actors in VEPs exist ($2^4=16$). That is, any combination of governments taking up none of these roles to taking up all of these roles. However, only seven of these combinations were identified. Table 4 gives an overview of the all combinations identified.

TABLE 4 ABOUT HERE

Tables 3 and 4 highlight that governments are not only very much involved in the 40 VEPs studied, but also that in the majority of cases they take up traditional roles combined with innovative roles (29 cases; 73 per cent); only in a minority of cases do they take up no role at all (2 cases; 5 per cent), or only innovative roles (9 cases; 23 per cent) – for all these cases, this is a ‘supporting’ role. Table 4 further indicates that two clusters of governmental involvement in VEPs represent the large majority of cases studied (27 cases; 68 per cent): VEPs in which governments only take up supporting roles (9 cases; 23 per cent) and VEPs in which governments take up all roles (18 cases; 45 per cent).

Yet, whilst of interest for indicating some patterns in the data, these numbers do not explain why governments are involved in the VEPs studied, or how their involvement is experienced by actors in the building sector. In what follows, therefore qualitative insights on the various roles of governments in these 40 VEPs are discussed.

4.1 *Initiating and leading*

Governments are involved in initiating and leading roles in 29 of the VEPs studied (73 per cent). When looking closely at the data, some country-specific findings come to the fore. In Australia, the Netherlands and the United States, the development of VEPs was considered a quick route for state actors to realize certain policy ideas. For instance, in the Netherlands, normally known for its progressive and ambitious environmental legislation (Jordan, 2003), interviewees referred to the slow

process of environmental policy making and implementation related to the design, construction and use of buildings. They explained that although the Dutch national building regulations are relatively well organized to ensure that buildings are healthy and safe, their environmental ambitions are very low. Interviewees considered it striking that it took more than 20 years to get a first set of building regulations implemented in the National Building Decree's chapter on 'Environment' (also, Van Bueren & Priemus, 2002). Similar concerns are expressed about Australian and United States building regulations (Bond, 2011; Burby, 2006). In comparison, many of the VEPs studied took less than two years to develop and implement.

In addition, as the interviewees explained, the advantage of having governments involved in leading roles in VEPs may be that it ensures some continuity, particularly in times of financial or political stress. The global financial crisis (GFC) was repeatedly mentioned as having affected the willingness of actors in the building sector to improve their environmental performance. It was also considered to have affected the performance of some VEPs without governments in leading roles. An administrator of a United States based VEP that builds on an innovative form of financing (case #42) reflects:

...there was a wide range of [VEPs] to reduce greenhouse gas emissions in the building sector, but then the GFC hit. ... [Because we had ongoing] Federal funding, we could redirect the people from new construction [which was the focus of many VEPs] to retrofitting. All those things together made up for a perfect storm [referring to much interest in case #42 by developers]. (int. 179)¹

In Singapore, the leading role of governmental actors in VEPs fits the country's ideology of state-guided economic development. This ideology considers a governance framework in which the state sets goals and incentivises the private sector to fulfil these (Huff, 1995). By taking the lead in the development of less coercive governance tools, the state can maintain a rather dominant role whilst allowing non-governmental actors to be involved in policy making and implementation. In addition, as interviewees explained, Singapore seeks to become the leader in the ASEAN region in terms of energy efficiency. In doing so, it needs to open up to international investors and businesses, which may 'feel uncomfortable with a too strong command and control approach to policy making' (int. 118; see also, Prakash & Potoski, 2006). For state actors in Singapore, VEPs may then provide a means of opening up existing policies, at the same time maintaining a dominant role.

4.2 *Monitoring and enforcing*

Governments are involved in monitoring and enforcing roles in 28 of the VEPs studied (70 per cent) – these were largely the same cases in which they played an initiating or leading role. Again, some country differences are worth discussing. In Australia, the Netherlands and the United States, interviewees considered governments in monitoring and enforcing roles as necessary to ensure a

¹ In line with the custom of qualitative social science research, interviewees provided me with their insights in confidence. As such, I cannot provide the identities of my interviewees (nor those of the VEPs studied – but see note 4) unless they have given me explicit approval to do so. To give the reader insight into the range of the interviews to which I give voice in this article, I refer to them with a number (e.g. 'int. 50').

VEP's credibility. A typical insight from these countries comes from a senior consultant in the Netherlands, who has worked closely in both government-driven and non-government driven VEPs:

The Dutch national government struggles with the credibility of [VEPs] as understood by the general public. A major and necessary role for the state is to strengthen this credibility by setting the right framework conditions and looking after their compliance. (int. 70)

Yet, as the interviewees explained, in a government-driven VEP, the enforcement of requirements and the instigation of disciplinary action when violation is found may stand in the way of attracting participants. Either participants will pull out of the VEP when found to be in violation, or the VEP as a whole will become thought of as being too stringent, which may put off prospective participants from participating. Government-driven VEPs often rely on some state funding and are likely to be terminated if they do not provide timely results. Their administrators thus face a dilemma. They can choose to be somewhat softer to ensure significant participation, or to be very strict and run the risk that the VEP will be terminated due to a lack of participation or results: 'You need to balance the need for accountability with commercial reality', an administrator of an Australian VEP pointed out (int. 41). As she explained, participation may result in awareness of the goal the VEP aims to achieve at the participant level, which she expected to result in action over a longer time frame. Even if a participant did not fully live up to the goals of the VEP, she preferred participation over non-participation. This dilemma is an issue that recurs in the VEP literature (cf., Potoski & Prakash, 2009).

The overall narrative in Singapore was again somewhat different. The VEPs studied there have largely been introduced to assist developers and property owners meet legislative requirements. The monitoring and enforcement role of government in these VEPs is in line with the approach to state-guided economic development discussed earlier. For example, one of the cases studied, a certification scheme (case #28), is integrated in the statutory building regulatory framework. All new construction work needs to be certified at this certification scheme's lowest level and all work is subject to normal building code enforcement practice. At first glance, this seems to conflict with the voluntary nature of the VEP, but as the administrators explained, participants may voluntarily seek higher levels of certification – through buildings that exceed the required levels of environmental performance. With all new construction work being exposed to this VEP, its administrators find that developers are willing to seek higher levels of compliance without additional compulsion. Up to 45 per cent of developers do so (int. 110).

4.3 *Supporting*

Governments have taken up supporting roles in 30 of the VEPs studied (80 per cent). Governmental actors generally provide funding or staffing for VEPs they have initiated or administered themselves, or act as (launching) customers for VEPs in which they have lesser or hardly any other roles. The former role is widely discussed in the extant literature, whereas the latter role has received less attention to date.

Interviewees in all countries consider governmental support to be of considerable importance to ensure that VEPs are successful in achieving meaningful outcomes in terms of buildings which are built or retrofitted with high levels of environmental performance. Governments are a dominant group of consumers of office space. By demanding office space with high levels of environmental performance, governments in the various countries not only show leadership or set an example, they can also add to the success of VEPs. One of the Dutch interviewees stated that:

A major role for the state to play is that of launching customer. By requiring more sustainable products and services themselves, they hold the power to change the market. This is a role that non-state actors cannot take up, simply because they lack the volume. (int. 70)

In all the countries in the sample, governmental actors at different levels of government now demand a certain benchmark rating of a VEP when acquiring or leasing new office space. A policymaker in a major Australian city explained: 'When [case #1, a certification scheme] was introduced, we had no idea how quickly it would be taken up, especially in the early days. By demanding [case #1] for our buildings, we helped to launch [case #1]' (int. 8). Accounts by administrators of these voluntary certification schemes (i.e. case #1, case #27 and case #55) in the various countries supported this role for governments in making this particular type of VEP a success.

However, not only positive insights were shared. The same policymaker in Australia referred to a problem that governments face when mandating a VEP that is largely developed without governmental involvement: 'Using [case #1] as legislation was difficult to do. It undoes the voluntary nature of [case #1] and it raises questions about the stringency of [case #1]' (int. 8). Mandating a VEP, he continued, also implies that one program is chosen over another. In this example, the Australian city could just as well have chosen case #2 (another voluntary certification scheme), or even an internationally accepted voluntary certification scheme, such as case #55, developed in the United States. The choice of one VEP over another means that the participants of the selected VEP stand to gain; in contrast, participants from the other VEP are excluded from certain contracts with governmental actors. As this and other interviewees explained, such choices can produce difficulties in terms of equity – along with potential accountability failures when governmental actors may gain personally from choosing one VEP over another.

4.4 *Assembling*

Governments have taken up assembling roles in 21 of the VEPs studied (53 per cent). To illustrate this role, an example from the Australian cases is telling. A major Australian city has long been a very active proponent of VEPs in the building sector. Among others, it initiated case #6, which helps building owners to find funds for building retrofits, as banks are normally unwilling to provide funds for this purpose (cf., Managan, Layke, Monica, & Nesler, 2012). In this VEP, the city government collaborates with a number of finance providers, as well as with its major commercial property

owners. Through the VEP, these commercial property owners now have access to funds for building upgrades.

At the same time, another national Australian VEP, case #3, addresses another part of the commercial building sector. This VEP considers that the way (office) tenants use their buildings is likely to be as important as the environmental credentials of the buildings. After all, if a highly energy efficient building is used inefficiently by its tenants, it will not achieve much in terms of energy savings. Equally, a prudent tenant might be able to reduce its energy consumption even if it does not occupy a top-class energy efficient building (cf., Pivo, 2010).

Yet, for some years these two VEPs were disjointed and operated outside each other's field of influence. Recently, an agency dedicated to urban sustainability within this city started to bring the participants and administrators of both VEPs together. As one staff member of this agency explained: 'We try to connect the two, [the landlord, participating in case #6, and the tenant, participating in case #3], so that they can inform each other on how to move forward' (int. 26). The interviewees considered that these two VEPs achieve more together than individually because the property owners now collaborate with their tenants in seeking solutions to problems they face. One of the issues uncovered, for example, is that property owners often find it difficult to reflect the costs of a retrofit in the tenancy, or to ask its tenants to ensure that a retrofitted building is used in a particular way so that it will achieve its energy goals. The agency is now trialling a new form of 'green' leases in which landlord and tenants come to agreement on such issues.

Similar agencies exist in other Australian cities as well as in cities in the United States. In a comparable case in the United States (case #46), an administrator even considered such assembling of VEPs by governments 'one of the secret weapons' because 'it cuts a lot of red tape' (int. 185) for participants who – in an assembling situation – do not have to fill out similar forms, apply for comparable funding and so on, when they wish to be involved in different VEPs.

In the Netherlands and Singapore, such agencies are in place at the national level. It is likely that the sheer size of Australia and the United States and their relatively low density (especially compared to Singapore and the Netherlands) mean that these roles come naturally to city governments and not to national agencies. Experiences shared by these agencies in relation to their assembling role were comparable to the Australian example as, for instance, a member of staff of the national agency in the Netherlands explained:

An organisation like ours is able to influence the market significantly. Even without financial incentives, there is much to be achieved by connecting people and organisations. (int. 79)

That said, interview accounts also point to the fact that in Australia, the Netherlands and the United States, governments could take up even stronger assembling roles. As one of the interviewees, a United States building sector representative, explained:

My overall insight, after having been in the industry for many years now, is that the sustainable building movement is very fragmented. Everyone moves in the same direction, but hardly anyone is working together. Some do, but most are in their own little tower. A future of things would be to seek more synergy between the [VEPs]. (int. 183)

This interviewee considered governments as being well positioned to generate such synergy. Also, now that the number of VEPs is growing, it may become unclear to prospective participants which VEP they should choose to participate in. Again the interviewees considered governmental actors as being in the right position to ensure coherence:

There's much uncertainty in the industry [in the Netherlands]. There are so many certificates and [other VEPs] around. People have a hard time understanding what is required in terms of sustainability. The government may take up a role of streamlining all this. We don't need more fragmentation. (int. 78)

5 Discussion and Conclusion

This article has sought to understand to a greater extent why and how governmental actors are involved in VEPs and what this implies in real world settings. As indicated in the introduction, these are important questions to ask given that it is assumed that governmental involvement in VEPs affects their performance (see various case studies in deLeon & Rivera, 2010; Morgenstern & Pizer, 2007; Ronit, 2012). Whilst it was beyond the scope of this study to explore the efficacy hypothesis, it has sought to carry out some of the groundwork needed for future studies that do address that hypothesis.

As with any research, this study comes with a number of caveats. The research approach – a qualitative comparative analysis of a stratified sample of 40 cases from four countries – inevitably results in limitations in terms of the reach of the conclusions drawn, as explained previously. That said, the study provides a number of insights that may advance our thinking about VEPs and the role of the state in (environmental) governing more generally.

First, whilst the current literature on the role of the state in contemporary governing sometimes refers to a retreat of the state in governing (Rhodes, 2007), this study does not support that claim. In a stratified sample of 40 VEPs in the building sector in Australia, the Netherlands, Singapore and the United States, governmental actors are found to be involved in the large majority (95 per cent). Whilst the sample to some extent supports statements that the role of the state has shifted rather than diminished (Braithwaite, 2008), it does not show a sweeping shift in the role that governments have taken up in these VEPs. In the majority of the 40 VEPs studied, governments have taken up traditional roles (73 per cent), often in combination with novel roles; only in a small number of cases have governments taken up novel roles only (23 per cent). It seems more likely that – at least in the 40 VEPs studied here – governments have embraced these innovative governance tools, but use

them in a rather traditional manner (through initiating, leading, monitoring and enforcing these VEPs) to achieve public goals (cf., Chhotray & Stoker, 2010).

Second, what has further become clear is that 'state actor involvement in VEPs' can mean a variety of things. Here, four specific roles for state actors were uncovered in the current literature, and further explored through the qualitative study: initiating and leading, monitoring and enforcing, supporting, and assembling. These four different roles (and more can most probably be uncovered) may help future research to gain a better understanding of VEP performance. For instance, future studies may not only be interested in whether VEPs with governmental involvement are more effective than VEPs without governmental involvement, which is a topic of debate in contemporary VEP studies (deLeon & Rivera, 2010; Morgenstern & Pizer, 2007), but may also wish to explore whether any or more of the distinct roles for governments in VEPs are related to desired VEP performance. In connection with this, future studies may further explore whether any particular combination of roles for governments in VEPs is more likely to result in desired VEP outcomes than other combinations.

Third, in this study it is of interest that out of 16 possible clusters of role combinations, only seven clusters were uncovered, with two clusters being dominant. In addition, the seven clusters highlight that governments are very conservative in how they wish to be involved in the 40 cases studied. They predominantly take up traditional roles and combine these with novel roles. This indicates that governments may very well leave opportunities unexplored in terms of how they can be involved in VEPs. For instance, in none of the VEPs studied have governments taken up a sole assembling role, whereas this particular role was highly appreciated by the VEP participants and administrators interviewed. An assembling role appears relatively undemanding for governments in terms of funds or staff required, but it may yield considerable results (although this assumption needs further testing). Assembling also appears to be a role that governments can take up over the lifecycle of one or more VEPs and may help to boost VEPs that perform poorly. Another interesting insight that has come to the fore are experienced complications with the supporting role. Particularly when governments are in a position to favour one VEP over another tensions may rise as the example of mandating a VEP in Australia (case #1) indicated. Scholars may wish to further explore, in particular, such assembling and supporting roles and the opportunities and tensions that may come with these.

To conclude, government involvement in VEPs is not blunt intervention and does not go against the voluntary nature of VEPs. It can be subtly tailored to the need of a VEP and its specific context, as many of the insights from the interviews highlight. It is now time to explore in greater depth whether the roles of government do indeed improve the performance of VEPs.

Table 1 - Types of VEPs studied.

Type	Description	No.
<i>Partnerships</i>	In these VEPs, governments have entered into partnerships with non-state actors or signed covenants that seek to improve the environmental performance of the latter. The <i>Better City Partnership</i> (fictional name, ² case #9 in this article) is a partnership between the city government of a major Australian City and the major commercial property owners in that city. The Partnership seeks to significantly reduce the carbon emissions of the commercial property of the property owners. Through the Partnership these organisations seek to overcome existing barriers property owners (often as landlords) face in improving the sustainability performance of their buildings, and to achieve substantial improvements of the environmental performance of their buildings. The City supports the property owners in achieving this aim.	10
<i>Certification schemes</i>	These VEPs build a set of criteria that a building, building product, individual or organization has to meet in order to get a certain rating. A typical example is the <i>United States' Green Building Certificate</i> (fictional name, case #53). This VEP consists of a set of sustainability criteria for buildings. Building designs and construction work are assessed against these criteria and the more criteria met, the better the rating (e.g. a 6 star rated building highlights that it outperforms a 3 star rated structure).	7
<i>Competitive grants</i>	These VEPs have been introduced to help property owners and developers improve the environmental performance of their buildings. This type of financial support awards projects that are expected to achieve the best results in terms of environmental performance within a pool of projects seeking this financial support. The <i>Positive Energy Home Competition</i> in one of the major cities of the United States (fictional name, case #52) challenges architects, engineers and developers to design a house that produces more renewable energy than the energy it consumes. The teams with the most promising designs are awarded a prime building location in the city to realise the design.	5
<i>Novel forms of contracting</i>	Typical examples of VEPs that build on novel forms of contracting in all the countries included in the study are <i>Energy Service Companies</i> , or ESCOs. ESCOs manage energy consumption and energy provision for building owners. They usually install energy producing and energy reducing technology, such as	4

² I have promised the interviewees anonymity and agreed to refer to the various real world cases studied in this article using fictional names (but see note 3).

	<p>solar panels and low energy lighting. The ESCO pays for the investment and is rewarded with the monetary value of the energy savings achieved. Governments often seek to support ESCOs by changing legislation, or by developing ESCO contracts.</p>	
<p><i>Overcoming financial or legal barriers</i></p>	<p>The remaining VEPs all seek to reduce legal or financial barriers that hamper increased environmental performance of buildings in other ways. For instance, a major Dutch city is experimenting with a <i>Revolving Sustainable Investment Fund</i> (fictional name, case #24). This fund provides low interest loans to property developers and property owners who wish to develop sustainable buildings with higher levels of environmental performance than Dutch building regulations require, but who cannot get mortgages for doing so. Once the loans are paid back by developers and property owners, the fund will supply loans to others. The costs of administrating the fund are paid for by the low interest on the loans supplied. There is a potential major win for the city council, which has also made an international pledge to reduce this city's carbon emissions significantly. If the fund proves to be successful, it can also be implemented in other Dutch cities.</p> <p>An example of a VEP that seeks to overcome legal barriers is <i>Green Gate</i> (fictional name, case #33) in a major Australian city. This VEP seeks to fast track development proposals that meet high levels of urban sustainability, but that also face legal barriers as they propose solutions that are not yet accepted under current building codes (e.g. particular solutions for collecting and using rainwater).</p>	<p>14</p>

Table 2 - Interviewees' background

Interviewee background	Government	Non-government
Policy maker	14 (4A/4N/6S/1U)*	
Administrator	41 (22A/4N/12S/3U)	30 (12A/3N/3S/12U)
Architect, engineer, advisor		14 (5A/6N/3S)
Contractor, developer		12 (3A/4N/5S)
Property owner		9 (4A/3N/2S)
Other	3 (3S)	15 (3A/3N/7S/2U)
Total	58 (26A/8N/21S/4U)	80 (27A/19N/20S/14U)

*Abbreviations: A=Australia; N=Netherlands; S=Singapore; U=United States

Table 3 - Summary of data³

Case type and number		Role of government in VEPs			
		<i>Initiating/ Leading</i>	<i>Monitoring/ Enforcing</i>	<i>Supporting</i>	<i>Assembling</i>
<i>Australia</i>					
Certification scheme	1	absent	absent	present	absent
Certification scheme	2	present	present	present	absent
Partnership	3	present	present	present	present
Barrier relief	4	absent	absent	present	absent
Barrier relief	6	present	present	present	present
Partnership	9	present	present	present	present
Certification scheme	11	absent	absent	absent	absent
Competitive grant	12	present	present	present	present
Barrier relief	14	present	present	present	present
Barrier relief	15	present	present	present	present
Competitive grant	17	present	present	present	present
Partnership	18	present	present	absent	absent
Barrier relief	33	present	present	absent	present
<i>Netherlands</i>					
Novel contracting	19	present	present	absent	absent
Partnership	20	present	present	present	present

Barrier relief	21	absent	absent	present	absent
Novel contracting	23	absent	absent	present	absent
Barrier relief	24	present	present	present	absent
Partnership	25	present	present	present	absent
Partnership	26	present	present	present	present
Certification scheme	27	absent	absent	present	absent
<i>Singapore</i>					
Certification scheme	28	present	present	present	absent
Partnership	29	absent	absent	present	absent
Competitive grant	31	present	present	present	present
Novel contracting	32	present	present	present	present

Table 3- continued

Case type and number		Role of government in VEPs			
		<i>Initiating/ Leading</i>	<i>Monitoring/ Enforcing</i>	<i>Supporting</i>	<i>Assembling</i>
<i>United States</i>					
Competitive grant	13	present	present	present	present
Partnership	22	present	present	absent	absent
Barrier relief	42	present	present	present	absent
Novel contracting	43	absent	absent	absent	absent
Partnership	45	present	present	present	present
Barrier relief	46	present	absent	absent	present
Partnership	47	present	present	present	present
Barrier relief	48	present	present	present	present
Barrier relief	49	present	present	present	present
Barrier relief	50	absent	absent	present	absent
Barrier relief	51	present	present	absent	present
Competitive grant	52	present	present	present	present
Certification scheme	53	absent	absent	present	absent
Barrier relief	54	present	present	present	present
Certification scheme	55	absent	absent	present	absent

Table 4 – Clusters of government involvement in VEPs

Role(s)	Country:*				Total
	A	N	S	U	
<i>None</i>	1			1	2
<i>Supporting only</i>	2	3	1	3	9
<i>Leading/initiating + Monitoring/Enforcing</i>	1	1		1	3
<i>Leading/initiating + Facilitating</i>				1	1
<i>Leading/initiating + Monitoring/Enforcing + Facilitating</i>	1			1	2
<i>Leading/initiating + Monitoring/Enforcing + Supporting</i>	1	2	1	1	5
<i>Leading/initiating + Monitoring/Enforcing + Supporting + Facilitating</i>	7	2	2	7	18
Total	13	8	4	15	40

*Abbreviations: A=Australia; N=Netherlands; S=Singapore; U=United States

References

- Ansell, C., & Gash, A. (2008). Collaborative Governance in Theory and Practice. *JPART*, 18(4), 543-571.
- Bailey, I. (2008). Industry Environmental Agreements and Climate Policy. *JEPP*, 10(2), 153-173.
- Barrett, S. (1991). Environmental Regulation For Competitive Advantage. *Business Strategy Review*, 2(1), 1-15.
- Bartle, I., & Vass, P. (2007). Self-regulation within the regulatory state. *Public Administration*, 85(4), 885-905.
- Bell, S., & Hindmoor, A. (2009). *Rethinking Governance*. Cambridge: CUP.
- Bond, S. (2011). Barriers and drivers to green buildings in Australia and New Zealand. *Journal of Property Investment & Finance*, 29(4/5), 494-509.
- Braithwaite, J. (2008). *Regulatory Capitalism*. Cheltenham: Edward Elgar.
- Burby, R. (2006). Hurricane Katrina and the Paradoxes of Government Disaster Policy. *ANNALS of the AAPSS*, 604(1), 171-191.
- Cashore, B., Auld, G., & Newsom, D. (2004). *Governing Through Markets*. New Haven: Yale University Press.
- Chhotray, V., & Stoker, G. (2010). *Governance Theory and Practice*. Houndmills: Palgrave.
- Croci, E. (2005). *Handbook of Environmental Voluntary Agreements*. Dordrecht: Springer.
- Darnall, N., & Carmin, J. (2005). Greener and Cleaner? *Policy Sciences*, 38(2-3), 71-90.
- Davis, G. (2002). Policy Capacity and the Future of Governance. In G. David & M. Keating (Eds.), *The Future of Governance* (pp. 230-243). St Leonards: Allen & Unwin.
- De Búrca, G., & Scott, J. (2006). *New governance and constitutionalism in Europe and the US*. Oxford: Hart.
- deLeon, P., & Rivera, J. (Eds.). (2010). *Voluntary Environmental Programs*. Plymouth: Lexington Books.
- Delmas, M. A., & Terlaak, A. K. (2001). A Framework for Analyzing Environmental Voluntary Agreements. *California Management Review*, 43(3), 44-62.
- DeMarzo, P. M., Fishman, M. J., & Hagerty, K. M. (2005). Self-Regulation and Government Oversight. *Review of Economic Studies*, 72(3), 687-706.
- Giddens, A. (2009). *The Politics of Climate Change*. Cambridge: Polity Press.
- Gullbrandsen, L. (2010). *Transnational Environmental Governance*. Cheltenham: Edward Elgar.
- Gunningham, N. (2009). The New Collaborative Governance. *Journal of Law and Society*, 36(1), 145-166.
- Gunningham, N., Kagan, R. A., & Thornton, D. (2003). *Shades of Green*. Stanford: Stanford University Press.
- Hoffmann, M. (2011). *Climate Governance at the Crossroads*. Oxford: OUP.

- Hofman, P., & De Bruijn, T. (2010). The Emergence of Sustainable Innovation. In J. Sarking, J. Cordeiro & D. Vasquez Bruzt (Eds.), *Facilitating Sustainable Innovation through Collaboration* (pp. 115-133). Amsterdam: Springer.
- Holley, C., Gunningham, N., & Shearing, C. (2012). *The New Environmental Governance*. London: Routledge.
- Huff, W. G. (1995). The developmental state, government, and Singapore's economic development since 1960. *World Development*, 23(8), 1421-1438.
- IPCC. (2014). *Climate Change 2014*. Cambridge: CUP.
- Jordan, A. (2003). The Europeanization of National Government and Policy. *British Journal of Political Science*, 33(2), 261-282.
- Jordan, A., & Lenschow, A. (2010). Environmental Policy Integration. *EPG*, 20(1), 147-158.
- Kickbusch, I., Hein, W., & Silberschmidt, G. (2010). Addressing Global Health Governance Challenges through a New Mechanism. *Journal of Law, Medicine and Ethics*, 38(3), 550-563.
- Klassert, C., & Möckel, S. (2013). Improving the Policy Mix. *EPG*, 23(5), 311-322.
- Lobel, O. (2004). The Renew Deal. *Minesota Law Review*, 89(2), 263-293.
- Lyon, T. P., & Maxwell, J. W. (2007). Environmental Public Voluntary Programs Reconsidered. *The Policy Studies Journal*, 35(4), 723-750.
- Managan, K., Layke, J., Monica, A., & Nesler, C. (2012). *Driving transformation to energy efficient buildings*. Washington: Institute for Building Efficiency.
- Mol, A., Volkmar, L., & Liefferink, D. (2000). *The Voluntary Approach to Environmental Policy*. Oxford: OUP.
- Morgenstern, R., & Pizer, W. (2007). *Reality Check*. Washington, DC: RFF Press.
- Newman, P., Beatley, T., & Boyer, H. (2009). *Resilient Cities*. Washington: Island Press.
- Overdevest, C., & Zeitlin, J. (2012). Assembling an experimentalist regime. *Regulation & Governance*, 6(x), 1-29.
- Pivo, G. (2010). Owner-Tenant Engagement in Sustainable Property Investing. *The Journal of Sustainable Real Estate*, 2(1), 183-199.
- Potoski, M., & Prakash, A. (2009). *Voluntary Programs*. Cambridge: MIT Press.
- Prakash, A., & Potoski, M. (2006). Racing to the Bottom? *American Journal of Political Science*, 50(2), 350-364.
- Prakash, A., & Potoski, M. (2012). Voluntary environmental programs. *Journal of Policy Analysis and Management*, 31(1), 123-138.
- Reid, E. M., & Toffel, M. W. (2009). Responding to public and private politics. *Strategic Management Journal*, 30(11), 1157-1178.
- Rhodes, R. A. W. (2007). Understanding Governance. *Organization Studies*, 28(8), 1243-1264.
- Ronit, K. (Ed.). (2012). *Business and Climate Policy*. Tokyo: UN University Press.
- Saurwein, F. (2011). Regulatory Choice for Alternative Modes of Regulation. *Law & Policy*, 33(3), 334-366.

Short, J., & Toffel, M. W. (2010). Making Self-Regulation More Than Merely Symbolic. *Administrative Science Quarterly*, 55(2), 361-396.

Solomon, J. (2008). Law and Governance in the 21st Century Regulatory State. *Texas Law Review*, 86, 819-856.

Steurer, R. (2011). Soft Instruments, Few Networks. *EPG*, 21(2), 270-290.

Taylor, C., Pollard, S., Rocks, S., & Angus, A. (2012). Selecting Policy Instruments for Better Environmental Regulation. *EPG*, 22(2), 268-292.

Trubek, D., & Trubek, L. G. (2007). Narrowing the gap? *The Columbia Journal of European law.*, 13(3), 539-564.

Van Bueren, E., & Priemus, H. (2002). Institutional barriers to sustainable construction. *Environment and Planning B*, 29(1), 75-86.

Van der Heijden, J. (2012). Voluntary Environmental Governance Arrangements. *Environmental Policies*, 21(3), 486-509.

Van der Heijden, J. (2013). Is new governance the silver bullet? *Urban Policy and Research*, 31(4), 453-471.

Van der Heijden, J. (2014). *Governance for Urban Sustainability and Resilience*. Cheltenham: Edward Elgar.

Wurzel, R., Zito, A., & Jordan, A. (2013). *Environmental Governance in Europe*. Cheltenham: Edward Elgar.