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EXPLORING THE EMERGENCE OF VOLUNTARY ENVIRONMENTAL GOVERNANCE ARRANGEMENTS: INSIGHTS FROM THE AUSTRALIAN BUILDINGS SECTOR

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ABSTRACT

Voluntary environmental governance arrangements (VEGAs) have focal attention in academic and policy debates. The current literature repeatedly reports that VEGAs are unsuccessful in achieving high levels of environmental performance by their participants, but at the same time reports an ongoing use of them. Based on a study of fifteen VEGAs in the Australian buildings sector this research paper analyzes how VEGAs may assist in achieving high(er) levels of environmental performance, without showing direct measurable results. Four subtle roles of VEGAs in doing so are uncovered: transformation of norms; providing business cases; filling in voids in governmental requirements; and, facilitating the implementation of governmental requirements.

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Exploring the Emergence of Voluntary Environmental Governance Arrangements: Insights From the Australian Buildings Sector

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Abstract

Voluntary environmental governance arrangements (VEGAs) have focal attention in academic and policy debates. The current literature repeatedly reports that VEGAs are unsuccessful in achieving high levels of environmental performance by their participants, but at the same time reports an ongoing use of them. Based on a study of fifteen VEGAs in the Australian buildings sector this research paper analyzes how VEGAs may assist in achieving high(er) levels of environmental performance, without showing direct measurable results. Four subtle roles of VEGAs in doing so are uncovered: transformation of norms; providing business cases; filling in voids in governmental requirements; and, facilitating the implementation of governmental requirements.

1 Introduction

Voluntary environmental governance aims to address undesirable outcomes in society through collectively agreed rules, but without the force of law. The debate on voluntary environmental governance has a long history, covers much ground, and it appears that what can be said has been said (for recent reviews of the literature, see Enjolras, 2008; Khanna & Brouhle, 2009; Potoski, 2011; Van der Heijden, 2012).

Two major issues stand out in the current literature. On the one hand it reports high expectations from scholars and policy makers about (future) VEGAs: the recent literature highlights an ongoing use of VEGAs, reports on policy makers' optimistic expectations, and on normative grounds speaks positively of their potential in terms effectiveness and efficiency (Hoffmann, 2011; Koehler, 2007; Potoski & Prakash, 2009). Following on from this literature, it may be concluded that, at least on the short term, VEGAs are a political reality and are likely to mushroom even further in different countries and sectors (but see couterclaims in Toller, 2008).

On the other hand, however, empirical studies find that individual VEGAs achieve, at best,

moderate success in improving the environmental performance of their participants (for reviews, see Darnall & Sides, 2008; Khanna & Brouhle, 2009; Lyon & Maxwell, 2007; Morgenstern & Pizer, 2007; OECD, 2003). Yet, these latter studies may be criticised for excluding interaction effects between VEGAs and environmental legislation (e.g. Trubek & Trubek, 2007); for excluding positive spill-over effects of VEGAs from participants to non-participants (e.g. Reid & Toffel, 2009); and, for downplaying the value of VEGAs as policy experiments (e.g. Hoffmann, 2011). Partly this is a consequence of the tendency in the literature to study individual VEGAs.

In short, much remains to be done in mapping the role of VEGAs in larger systems of environmental governance. Before writing off VEGAs as ineffective in solely solving environmental risks, or embracing them with overly high expectations, we need to understand what it is they can achieve on a day to day basis.

This paper attempts to take up a small part of this huge challenge by examining the development and implementation of a wide range of VEGAs in the Australian buildings sector (here defined as the construction and use of buildings). The paper sets out by briefly discussing the backdrop against which these VEGAs have emerged – the requirements set by Commonwealth, State and Territory, and local governments. The paper then introduces the various VEGAs studied and analyses their development and implementation. In line with earlier research this paper finds that the VEGAs studied have individually achieved, at best, moderate results in terms of building built (or retrofitted) with high levels of environmental performance. Yet, in concert they are experienced to have added to a changed norm towards environmental performance in the sector. Further, through these VEGAs business cases are developed, which are of importance to convince laggards in the sector to make a move to higher levels of environmental performance. Finally, the VEGAs studied are considered important to fill in the voids left open by governmental requirements, and to facilitate the sector in meeting governmental requirements. The paper concludes with the main lessons learnt.

The research presented largely builds on a stratified sample of fifteen VEGAs, which canvases the type and content of these arrangements in the Australian buildings sector. In order to understand the development process of the VEGAs, their particular form, and the role they play in environmental governance in this sector, a series of in-depth face-to-face interviews was carried out (Richards, 1996). Interviewees were selected using snowball sampling (Longhurst, 2003). This sampling resulted in 53 interviewees from various backgrounds, selected for their in-depth knowledge of and experience with one or more of the VEGAs – i.e. policy makers, administrators, investors, developers, architects, engineers, and property owners. Interviews were based on a semi-structured questionnaire which provided a structure of checks and balances to assess the validity of findings (Silverman, 2001). Further, interviews were recorded and transcribed into a report that was sent back to interviewees for validation (Fielding & Fielding, 1986). The data were processed by

means of a systematic coding scheme (Seale, Gobo, Gubrium, & Silverman, 2004) and qualitative data analysis software. By using this approach the data were systematically explored and insight was gained into the 'repetitiveness' and 'rarity' of experiences shared by the interviewees. Finally, a document study of existing information on these fourteen VEGAs and existing research on VEGAs was carried out to cross-check the validity of the data and findings.

2 Environmental governance in the Australian buildings sector

The buildings sector provides us with a range of typical characteristics which makes the environmental problems is faces severely complex. The environmental harms of the sector spread out and relate to other sectors – such as transport and industry; buildings often have a long life span, which implies that their environmental impact lasts over decades – or are only considered as negative long after the building is erected; the sector is highly fragmented, with a wide range of professionals, supplyers, consumers and financiers involved; the assumed causes of and sollotions to the harms are a complex interplay of technology and behaviour; and, there a high economical interests at stake and strong lobby groups at play, which makes it often hard for policy makers to introduce costly requirements that aim to improve the environmental performance of the sector (I here provide a snapshot of the problems; for good reviews on "greening" the buildings sector, see Abaire, 2008; Hoffman & Henn, 2009). This is not to say that these problems cannot be addressed by traditional government intervention, and various levels of Australian government have aimed to do so.

2.1 Commonwealth government

With the passing of the *Clean Energy Bill* in 2012 the Australian Commonwealth government has sent a clear message as to their ambitions in addressing climate change. The *Bill* states the need of an overall 20% reduction of greenhouse gas emissions compared to 2000 levels by 2050 (Australian Parliament, 2011). One of the most relevant aspects of the Clean Energy Bill is the pricing of carbon that is released into the atmosphere – popularly referred to as "carbon tax". Various organizations within Australian buildings industry (representing different trades, investors, and property owners) have welcomed this carbon tax, stating that the carbon tax may be a major incentive for the improvement of the environmental performance of the Australian buildings sector (Allen Consulting Group, 2011; ASBEC, 2008; CIE, 2011; GBCA, 2011). Yet, this carbon tax only works indirectly in the buildings sector. It does not mandate builders, building owners, or investors to achieve certain results in terms of high levels of environmental performance of buildings, or how to achieve such

results. Such requirements do however exist as well.

From 2003 onwards various energy efficiency requirements have been introduced in the Building Codes of Australia (BCA), aiming to reduce greenhouse gas emissions attributable to the operation of buildings (ABCB, 2010), and are, over time, increased in stringency. Further, in 2009 a *National Partnership Agreement on Energy Efficiency* was signed by the States and the Commonwealth Government, which, again, introduces more stringent standards to the energy efficiency of buildings (COAG, 2009). Finally, since 2010, under the *Building Energy Disclosure Act 2010,* disclosure of the energy performance of commercial office spaces larger than 2,000m2 is mandatory. It is expected that such information supply helps (future) tenants of to compare commercial buildings when deciding to start on extent a lease.

2.2 State/Territory and local governments

In addition the abovementioned Commonwealth government's requirements, the Australian building sector is subject to requirements on State and Territory, and local governmental level. Through environmental planning and assessment acts and regulation State and Territory governments aim to manage the environmental performance of the buildings sector within their jurisdictions. State and Territory governments can stipulate the environmental performance of (future) buildings on a particular site, the density of development, or set limits to the spread of urban regions (Thompson, 2007). Also, through ambitious strategic plans these governments show that they are aiming to move (far) beyond the Commonwealth government's goals. For instance, the State of South Australia aims to increase the energy efficiency of dwellings by 15% by 2020 as of 2000 levels, and the energy efficiency of government buildings by 30% (Government of SA, 2011); the Northern Territory government aims at a 25% reduction of household water by 2025 as of 2009 levels (Government, 2009); and, the state of New South Wales goes so far as to aim for a 60% reduction of greenhouse gas emissions by 2050 as of 2000 levels, partly through funding the retrofitting of existing residential buildings (NSW Government, 2011).

Further, the Commonwealth government has required all State and Territory governments to prepare overarching strategic plans for their capital cities to ensure a clear set of short, mid-term and long-term objectives. This has resulted in range of highly ambitious City plans that provide clarity to both (private sector) investors and the public on how public funds will be spend (COAG, 2012). These City plans push the envelope even further in terms of reducing greenhouse gas emissions, and the part the buildings sector plays in achieving this objective. What is of interest about these plans is that they set significantly higher goals than the Commonwealth policies and legislation discussed, aim to achieve these goals on shorter terms, and provide space for experimentation and innovation in doing

so. For instance, the City of Sydney aims to reduce greenhouse gasses by 70% by 2030 as of 2006 levels (City of Sydney, 2011), and the City of Brisbane by 50% by 2026 as of 2006 levels (City of Brisbane, 2006). Another key-characteristic of these plans is that they were developed in close collaboration with business and citizen participations. These deliberative city planning processes fit a larger tendency described in the city planning literature (e.g. Evans, Joas, Sundback, & Thobald, 2005).

2.3 Critical studies

The above having been said, it is often considered that the Commonwealth government's involvement is too limited to truly address the real problems faced in the Australian buildings sector. From 2000 onwards a series of studies has been undertaken to gain a better understanding of the key-issues in the buildings sector that need attention in addressing environmental risks (for an overview, see Bond, 2011). Two conclusions recur in these studies (AGO, 2006; Johanson, 2011; Maller & Horne, 2011): existing policies, legislative requirements and regulations in the Australian buildings sector pay too limited attention to potential improvements of environmental performance of the residential sector; and, they pay too limited attention to the existing building stock.

Further, the initiatives on regional and local level face severe critique as well (e.g. COAG, 2012; EDO, 2010; Thomas, 2010). The major critique to these initiatives is that the State, Territory and City plans are not mandatory. The success of these plans depends on political will and the transposition of the ambitious goals in regulation or other instruments. To date there is little evidence available that these plans, many of which have seen a first version implemented in the first half of the 2000s, have achieved any environmental improvement in general, and in the buildings sector in particular.

3 VEGAs in the Australian building sector: unpacking the problem and filling in voids

It is against the above backdrop that a range of VEGAs studied has emerged in the Australian buildings sector. These VEGAs aim to improve the environmental performance of new or existing buildings, but all have a different approach in doing so. To give a broad brush overview before zooming into the details, the disparate VEGAs address different aspects of the larger complex environmental problem that the buildings sector poses. The VEGAs have unpacked this larger problem into smaller and more manageable problems, and specific problem owners have come together to solve these. Further, local governments have played a strong role in ensuring that the various VEGAs address the voids in the existing system of environmental governance. Table 1

provides an overview of the VEGAs studied.

Table 1 – the specific problems and problem owners the VEGAs studied address, and their approach

Specific problem	**Problem owners**	**VEGAs (and reach)**	**Approach (and type)**
First-mover disadvantages (government driven)	Developers, builders and owners of new and existing commercial buildings; and new and existing residential buildings	Buildings Innovation Fund (South Australia); Sustainable Development Grant (Brisbane); Smart Green Apartments (Sydney); Lord Mayor Grant (Brisbane); Zero Carbon Challenge (South Australia)	Financial incentives (Best-performance grants)
First-mover disadvantages (specific regulatory barriers)	Developers and future owners of new commercial and residential buildings	Green Door (Queensland)	Regulatory relief (Intensive regulatory support)
First-mover disadvantages (market driven)	Developers, builders and owners of new and existing commercial and residential buildings	EnviroDevelopment (Australia-wide); Green Star (Australia-wide)	Marketing performance (best-of-class benchmarking)
Split incentives (property owners)	Owners of existing commercial buildings	1200 Buildings (Melbourne); Environmental Upgrade Agreements (Sydney)	Financial intercession (Tripartite financing)
Split incentives (tenants)	Tenants of existing commercial buildings	CitySwitch Green Office (Australia-wide)	Information collection and sharing (Information networks)
Split incentives (on precinct level)	Major property owners	Better Building Partnership (Sydney)	Information sharing (Elite networks)
Residential buildings	Households	Climate Smart Home Service (Brisbane); Energy Efficiency Program for Low Income Households (Adelaide); ResourceSmart (Melbourne)	Information sharing (Intensive behavioural interventions)

3.1 Addressing first-mover disadvantages

Traditional direct government involvement in a sector may be critiqued for only aiming to bring laggards up to the standards (Gunningham & Sinclair, 2002). Leadership, however, is needed to experiment with new approaches in addressing environmental problems, which may ultimately become the new norm or benchmark. *First-mover disadvantages* may however stand in the way for

actors to show leadership. First-mover disadvantages relate to the financial, legislative and cultural risks organizations face when bringing a new product or service to the market (c.f. Dobrev & Gotsopoulos, 2010; Lieberman & Montgomery, 1988). That is, the new product or service may be considered too expensive by clients; may conflict with existing legislation; or may face resistance when it is considered 'ahead of its time', or 'too fast for the market' (Robinson & Min, 2002). The VEGAs studied address these first-mover disadvantages by providing tools that allow for showing leadership; and take away financial and legal barriers.

Three types of VEGAs in the Australian building sector address first-mover disadvantages: best-performance grants, intensive regulatory support, and best-of class benchmarking.

Best- performance grants

Addressing first-mover disadvantages through subsidies is a well-known tool in environmental governance (Haywood, 2011; e.g. Stewart, 2006); for instance, the provision of subsidies to households and firms for the instalment of solar panels. Yet, questions have arisen as to how successful traditional subsidies are in improving environmental performance, and sometimes it is even argued that subsidies may be harmful in doing so (Pearce, Porter, Steenblik, Pieters, & Potier, 2003). Addressing these problems, and aiming to make recipients of financial support to move beyond mere bottom-line compliance with the financial arrangements' rules (e.g. merely installing solar panels), a range of Australian governments have introduced best-performance grants. Best-performance grants challenge recipients to come up with innovative solutions to achieve high environmental performance of their (future) buildings. Competition among the grant-applicants is expected to raise the bar of these solutions.[1]

Typically these best-performance grants are initiated and administered by local or state governments in Australia. They are the result of a collaborative development process in which these governments work together with businesses and non-government organizations. A representative example is South Australia's Buildings Innovation Fund, where the state government collaborates with the Adelaide City Council, the Property Council (a building sector interest group) and the University of South Australia in developing grant criteria and assessing applications. The strength of these grants, so explained a grant administrator, is that the outcomes provide 'solid business cases that innovative solutions to reduce carbon emissions [in the buildings sector] can be cost-effective' (South Australian Department of the Environment and Natural Resources, 22/3/2012 #51).

[1] Former and present grant administrators in Adelaide, 22/3/2012 #51; Brisbane, 31/1/2012 #27; Melbourne, 4/10/2011 #13.

Intensive regulatory support

Besides providing funds to limit or take away first-mover financial risks, governments may support first-movers by taking away legislative barriers (Frynas, Mellhali, & Pigman, 2006). The buildings sector is notorious for legislative barriers that stand in the way of improved environmental performance (cf. Bond, 2011); for instance, with current technologies it is possible to reclaim and reuse wastewater; however, sewage and drinking-water regulation often prevent this technology to be implemented (e.g. Power, 2010).

Through intensive regulatory support the Queensland Government aims to provide regulatory relief to applicants of development proposals that aim to be leaders in terms of environmental performance. The Queensland Government works collaboratively with the development industry, local governments and referral agencies to identify the most sustainable development proposals in Queensland and helps these to overcome regulatory barriers. Under this VEGA, development proposals that are identified as 'the most sustainable in Queensland' are fast-tracked in order to ensure that 'exemplary sustainable developments delivered sooner throughout Queensland' (Queensland Government, 2011, 4). Or, in the words of a representative of a property and development interest group:

> It was an acknowledgement that if they [the government] want to reach a certain state of outcomes, they need to make it easier for the people to go through the system (Urban Development Institute of Australia, 2/2/2012 #31).

Best-of-class benchmarking

VEGAs fitting this type allow for comparing buildings against each other based on their environmental performance. Benchmarking arrangements in the buildings sector rate the environmental performance of buildings on a certain scale – e.g. a certain number of stars indicates a certain performance. Criteria against which buildings are assessed are set by the arrangement's administrator, and assessment is generally carried out by a third party certifier. In order to meet a certain level of certification a building has to meet a number of criteria. The more criteria are met, the higher the level of certification – i.e. 6-star rating. Generally these arrangements leave it to the building owner or designer to choose the a certain mix of criteria to meet and reach a certain level of certification (cf. Cooper & Symes, 2009; Corbett & Muthulingam, 2007; Horvat & Fazio, 2005). Two voluntary benchmarking arrangements have emerged in Australia: *Green Star* and *EnviroDevelopment*.

Green Star was introduced in 2002 by the Australian Green Building Council (GBCA) – a public company limited, which board members represent industries and governments. One of the drivers of its development was a report by the Australian Greenhouse Office (AGO, 1999), which identified the office market as an area where, in terms of greenhouse gas emission reductions, much gains were to be expected against limited costs. Different actors in the industry considered this as a possible profitable market, and aimed to develop a label that would distinguish their buildings as performing well beyond the Building Code of Australia (cf. Heyes & Maxwell, 2004).

EnviroDevelopment is developed and administrated by the Urban Development Institute of Australia (UDIA) – a not-for profit industry body. When implementing *EnviroDevelopment* in 2009 it aimed at the residential sector, which then was a niche market left aside by *Green Star*.[2] Over the years however, *EnviroDevelopment* has broadened its scope and now also addresses commercial buildings.

3.2 Addressing split incentives

Another particular problem in the buildings sector is *split incentives*. For instance, developers of buildings have different incentives than buildings owners in (not) improving the environmental performance of buildings; property owners have different incentives than their tenants; and, the government responsible for a certain precinct has different incentives than individual property owners within that precinct (cf. Abaire, 2008; Hoffman & Henn, 2009). The costs of environmental underperformance (electricity, heating, water use, etc.) often come to building users, and building developers or building owners therefore do often not see a need to improve the environmental performance of buildings as they do not bear the costs of underperformance. For building users, especially those temporary using a building, it is often not cost-effective to improve the buildings they use themselves, as the cost of improvement has a longer payback time than the time they will spend in the particular building (ibid.). The VEGAs studied address these conflicting interests by financially supporting building owners in improving the environmental performance of their (future) buildings; and, and by supporting building users in achieving such improvements of the buildings they lease.

Tripartite financing

Property owners often cannot find the necessary financing to upgrade their buildings. Banks are risk

[2] EnviroDevelopment administrator, Brisbane, 2/2/2012 #30.

averse in supplying mortgages as the cost of the upgrade are not (yet) represented in an increase in the buildings market value – i.e. the cost of the upgrade will be paid back by lower amenity costs, and expected higher rent rates (cf. Pivo, 2010).

Addressing this particular issue, the Cities of Melbourne and Sydney have introduced VEGAs based on *tripartite financing*. These VEGAs are referred to as *1200 buildings* in Melbourne and *Environmental Upgrade Agreement* in Sydney. In both cities the particular arrangements are founded in their overall city planning strategy – see above. The arrangements address the specific financing problem, but also provide strong tool for governments to achieve results. As an administrator of *1200 buildings* explained:

> [T]he voluntary needs to come with a tangible benefit. If you step back a bit you find that governments need to find out what their value proposition is. Without the [tripartite financing] our value proposition was limited to promotion, networks and knowledge. The finance incentive has created a strong value proposition and something that many Melbourne building owners are interested in (Melbourne City Council, 17/1/2012 #26).

These VEGAs bring together local councils, a national bank, a major fund manager, the Australian Carbon Trust, and property owners in the cities' central business districts. The VEGA is a vehicle to allow the local councils to enter into agreements with building owners and finance providers as a way of funding works to improve environmental performance of those buildings. Under these VEGAs, the finance provider lends funds to a building owner for environmental upgrades to its buildings, and this loan is repaid through a local council charge on the land – i.e. the local council charges a fee, which is then used to pay off the loan. The agreement states the future environmental performance that is to be achieved, and stipulates a time frame for achieving this result (NSW Government, 2010).

Information networks

Tenants are often unaware as to how to improve their environmental performance. *CitySwitch Green Office,* first developed and implemented in Sydney, but now is implemented throughout Australia addresses this issue. The VEGA aims to make tenants aware of the energy they use and how they can reduce this. It is administrated by local councils and state governments and serves as a platform for office tenants to learn about energy efficiency, share information, network, and showcase good practices. It further helps tenants to put pressure on their landlords to improve the environmental performance of their buildings.

In participating in the arrangement, office tenants come to agreements with councils on their

future environmental performance, and the council then provides support to help them meet these goals. Certain councils provide financial support; others facilitate meetings and ensure an ongoing supply and distribution of information.[3] In return for signing off an agreement with a local council on future targets to be met, participants may use the promotional *CitySwitch Green Office* logo; and, early awards have been introduced to recognise leading practice.[4] The ability to showcase leadership is considered a strong driver for participation:

> It is about leadership, it is about being seen to participate. … The program helps leaders to feel good about what it is they are doing, and to have a place to speak about it. (Sydney City Council, 15/2/2012 #41).

Elite networks

In achieving a high overall environmental performance of the buildings sector, it is important to move beyond the level of individual buildings. Especially the interaction of infrastructure such as water and electricity supply, sewage and waste collection, and transport of people and goods to and from buildings has a significant impact on the environmental performance of buildings. In making investments in future infrastructure cities may wish to know whether building owners and developers are willing to move to higher performing buildings; and if so, what is needed for them to do so. Building owners may wish to be informed on the direction a city may take in its infrastructure investments and legislative framework before making investments to improve their buildings' environmental performance.

The most direct way of engaging with businesses for governments is by bringing them together to start a debate. This is what the *Better Buildings Partnership* aims to achieve. The *Better Buildings Partnership* is an elite network of the City of Sydney and 13 major commercial landlords representing approximately 60 per cent of the office floor space across Sydney's central business district. The *Partnership* was started in 2011 following examples in London and Toronto.[5] The program recognizes that although commercial property owners have the ability to make major improvements to their individual buildings, they and the City of Sydney can achieve greater results if they collaborate. As an administrator of the *Partnership* explained:

> [T]here is only so much they can do with their own portfolio and their own buildings. The next jump [can only be achieved] by actually working together (Sydney City Council, 16/2/2012 #42).

[3] *City Switch* administrators in Sydney 15/2/2012 #41; Adelaide 21/3/2012 #50; and Brisbane 3/2/2012 #35.
[4] www.cityswitch.net.au
[5] www.sydneybetterbuildings.com.au

Through the *Partnership* the City and the property owners aim to overcome the existing barriers faced in improving the sustainability performance of the buildings sector. A Memorandum of Understanding is signed by the various parties stating that the property owners commit to the City's vision (the earlier discussed *Sydney 2030* city plan) and that the city will support them in doing so. Being involved in the policy making process, public recognition and peer-pressure appear strong drivers for property owners to join and participate. As a representative of one of the participating landlords highlighted:

> The value for us is in being at the table with our competitors and peers. I'm not sure what other value actually comes from the initiative than just being a part of what everybody is a part of at the moment (Sydney based landlord, 17/02/2012 #44).

3.3 Addressing residential buildings

A final particular problem addressed in the series of VEGAs studied is the difficulty of *improving the environmental performance of residential buildings.* Two specific issues stand in the way for doing so. First, existing property rights often do not allow that new regulation applies to existing buildings – i.e. existing buildings often have to meet the regulatory requirements as in force when these buildings were designed or build. As such many existing buildings, and in particular residential buildings, do not have to meet new and more stringent environmental regulation (ABCB, 2011). Second, changing the environmental behaviour of households (as users of residential buildings) is hampered by their awareness of the environmental problems faced and their willingness and ability to change their behaviour (Berglund & Matti, 2006). This challenge is strengthened as the information available on both the environmental problems faced and the possibilities for behavioural change is highly complex (Hoffman & Henn, 2009). An obvious, and oft chosen approach to increase the knowledge of households on environmental problems are information campaigns (Stewart, 2006). However, such campaigns are often found to have limit effect (Henry & Gordon, 2003; Weiss & Tschirhart, 1994).

Intensive behavioural interventions[6]

These arrangements aim to make households aware of their behaviour and environmental performance, and to provide them with information and tools to improve this. Generally, a consultant visits a household and audits the household's environmental performance (e.g. based on their energy and water bills). Following on from the audit, the consultant advises the household as to

[6] A term I borrow from the field of psychology (e.g. Howlin, Magiati, & Charman, 2009).

how it can improve its environmental performance *and* supplies it with actual means to do so.[7] A former administer of one of the VEGAs studied explained:

> Basically it was advice over a cup of coffee. Measuring the flow rate out of the showerhead, changing the showerhead if necessary, or putting some compact fluorescent light bulbs in, or looking at the fridge seals. Very basic things. … And it may not be the thing that makes the big difference, but it is about engaging people in that. It is an initial behavior change. And if they in their own minds start to see themselves as energy consumers and conservers, that can lead to bigger and more successful changes (South Australian Department of the Environment and Natural Resources, 22/03/2012 #51).

Typically, large numbers of households is included in these VEGAs – from 12,000 households in Melbourne to 16,500 households in Adelaide. In these VEGAs local governments play a prominent role – i.e. providing funds and manpower.

4 Analysing the VEGAs: A story of limited success and mixed expectations

Fully in-line with earlier studies on VEGAs, individually the VEGAs studied have achieved little success in terms of numbers of buildings built or retrofitted with high levels of environmental pergormance. To give some examples, in its ten years of existence roughly 400 projects have been certified under the *Green Star* arrangement, representing 18% of Australia's central business district (CBD) office space (GBCA, 2012); since its initiation in 2009 roughly 40 projects have been certified under the *EnviroDevelopment* arrangement[8]; roughly 350 tenants, representing about 400 office buildings, have entered into agreements with local councils under *CitySwitch*; and, less than 10 *Environmental Upgrade Agreements* have been signed in Sydney, and less than 50 buildings currently participate in the *1200 buildings* arrangements in Melbourne.[9] These numbers are bleak in contrast with the vast size of the Australian buildings sector. For instance, only in the state of Victoria yearly about 45,000 residential buildings are built; and, currently Australia holds about 4,500 office buildings.[10]

Although interviewees were critical regarding the impact of the VEGAs in terms of numbers of buildings built or retrofitted, they speak possitively about these VEGAs' impact on the buildings sector.

[7] Administrators in Melbourne, 03/10/2011 #11; Brisbane, 31/01/2012 #27; and, Adelaide, 22/03/2012 #51.
[8] Note: a project may consist of more than one building.
[9] VEGA administrators in Sydney, 15/2/2012 #39; Brisbane, 2/2/2012 #30; Sydney 15/2/2012 #41; Sydney 16/2/2012 #42; Melbourne 17/1/2012 #26.
[10] Data from: www.hia.com.au, www.pulse.buildingcommission.com.au and www.propertyoz.com.au.

4.1 Changing the norm

There is consensus amongst the interviewees that these VEGAs have achieved more than a number of buildings with a high environmental performance. Interviewees hold the opinion that VEGAs in the Australian buildings sector have added to a changed norm of developing high performing buildings:

> The strength of [arrangements] like this is that it creates a culture and a sense of this [high environmental performance in the buildings sector] is the normal way to do it (Sydney City Council, 15/02/2012 #34).

> You get to a tipping point where it becomes the norm. So we don't have to actually intervene into what will happen naturally. It is about chipping away, and it is about finding our niches - where can we value add or facilitate [through new environmental governance arrangements] (Brisbane City Council, 31/1/2012 #27).

> The cycle is very long, but the [commercial] projects that you see in the last two or three years… I would say it is almost the norm of any project that you see, that it has on its very first page of the brochure that it has these features [as stipulated under a new environmental governance agreement] (Urban Development Institute of Australia, 2/2/2012 #31).

That being said, this changed norm was only perceived in the top-end of the commercial buildings sector where large property owners and developers see the advantage of attracting clients that are willing to pay for the extra costs of buildings with high levels of environmental performance. In other areas of the buildings sector, and especially in the residential sector, interviewee accounts do report limited success as the owners of this property do not see the economic value of high environmental performance of their buildings. As an interviewee explained:

> However, I should note that we are talking about the top-end of town here [where VEGAs are taken up] e.g. government, blue-chip companies, financial institutions, lawyers, and accounting firms. But there is another level where the consumer does not currently see the benefit of green [sustainable buildings] and they don't want to pay for it. And even if they do see the benefit, they probably are not willing to pay a premium for it. This is the next major challenge (Lend Lease (major developer), 17/2/2012 #47).

Related to the above, interviewees stated the importance of VEGAs to provide business cases for the buildings sector, to 'push the envelope of what can be done' and to 'show the industry that innovation can be cost-effective' (South Australian Department of the Environment and Natural

Resources, 22/03/2012 #51). Within the buildings sector such business cases appear key in achieving a move towards higher levels of environmental performance given the high financial risks involved of owning or developing a building. An interviewee noted:

> It is pretty much critical mass. If you are doing a commercial building … you take a commercial risk to not go Green Star [one of the VEGAs studied] rated at the moment. And this is because it is now a bit of a default. If it is not Green Star it is considered [lesser] from the day it is built. There it is. That market is hit ... but this does not relate to the residential market. It is not proven residents want to pay for it. It is not a clear business-case (Australian Green Development Forum, 1/2/2012 #29).

4.2 The limits of VEGAs

Whilst positive about the role VEGAs have played in changing the norm in the Australian buildings sector, interviewees throughout the buildings sector were critical as well to what it is VEGAs may achieve. There was a shared perception among interviewees that VEGAs are insufficient in addressing those areas in the buildings sector where a business case for higher levels of environmental performance is absent. Here interviewees argued that government intervention through regulation may be needed to actually achieve higher environmental performance throughout the buildings sector:

> The speed in which we react is out of sync with the problems we face. Although a lot of voluntary programs make sense, they are not fast enough in addressing problems. Regulation is needed. Yes, there is much change to be seen over the last ten years, but change has only occurred in the top-end of the construction market (Australian Green Development Forum, 1/2/2012 #29).

> Mandatory is the way to go. And that probably is a funny answer from somebody who runs a voluntary program. Well, there probably is room for both. But if we make the changes in the timeline we need to make them, then we've got to toughen up here (Sydney City Council, 15/2/2012 #41).

> There was a recognition that … that industry could only go so far … We operate in an environment where the market drives a lot of things, but in certain areas there needs to be government intervention, or government regulation, or government participation in order to push or progress the agenda to the point where it needs to move to (Australian Sustainable Built Environment Council, 16/11/2011 #21).

That is not to say that interviewees hold that future regulation should replace VEGAs.

Interviewees shared the opinion that direct governmental regulation may improve the uptake and success of VEGAs. And, on their turn, VEGAs may assist in meeting governmental requirements. For instance, the recently implemented carbon tax (see under 2.1) was considered to be a driver for an increased uptake of the discussed VEGAs:

> Obviously, being involved in [a VEGA] isn't mandatory but with carbon pricing, it's becoming more important for businesses to prioritize energy efficiency (Brisbane City Council, 2/2/2012 #30).

> The thing that is starting now, and that will make a difference is the cost of energy … People will start looking for ways to reduce costs and [this is where VEGAs come in]. Dollar difference is important to them (Mirvac (major developer) 17/2/2012 #45).

5 Conclusion

This research article studied the emergence and implementation of a range of VEGAs in the Australian buildings sectors. It was found that the individual VEGAs have achieved limited success in terms of buildings built or retrofitted with high levels of environmental performance. This underlines the critical literature on the limited effects of VEGAs (e.g. OECD, 2003). Does this imply that VEGAs should be abolished from the environmental governance toolkit? Certainly not. Taking into account the care with which the mostly qualitative and anecdotal data collected need to be treated, it may be concluded that the VEGAs studied fulfil, at least, four valuable roles in environmental governance in the Australian buildings sector.

First, the VEGAs studied fulfil a *transformative role* in changing the norm of sustainable practice and behaviour in the Australian buildings sector. These VEGAs allow leaders to showcase their leading practice (and be recognized as such); and, through collaborative development of VEGAs various actors in an industry may become aware of the environmental issues faced. Yet, as the case highlights, such a change of norms should not be expected from implementing a single VEGA. In the case of the Australian buildings sector the various VEGAs addressed different actors (i.e. property owners, tenants, households), different types of buildings (i.e. commercial, residential, new, existing), and different problems (i.e. financing environmental upgrades, regulatory barriers). It is in their variety that these VEGAs have a wide reach throughout the sector.

Second, the VEGAs helped to timely *fill in voids* in formal legislative requirements. In the Australian buildings sector severe shortfalls in the legislative requirements relate to a lack of attention to existing buildings and a lack of attention to residential buildings. Many of the VEGAs studied particularly aim to address these issues. As opposed to formal legislative requirements

VEGAs may face shorter development time, or are less costly to develop as they remain outside the realm of administrative processes and procedures (cf. Lyon & Maxwell, 2007; Short & Toffel, 2010). As one of the interviewees criticized: 'the Builing Codes of Australia [are] very slow when it comes to change and taking up environmental issues' (Brisbane City Council, 31/01/2012 #27). It should be noted that this 'advantage' of VEGAs of speedy implementation may result in severe accountability issues (Scott & Holder, 2006).

Third, the VEGAs studied play a strong role in generating *business cases*. Where traditional steering tools (i.e. direct regulation, subsidies) leave it to policy makers to set levels of environmental performance, the various VEGAs discussed often leave it to the participants to show improved levels of performance. Especially best-performance grants and the intensive regulatory support appear tools that challenge participants to make significant advances in terms of innovation. These types of VEGAs may be considered as helping governments to provide business cases to the buildings industry in terms of cost-effective improvements of environmental performance.

Fourth and final, the VEGAs studied were considered to fulfil a *facilitative role* in meeting governmental requirements. Especially in the case of carbon pricing it is left to individuals and organizations as to how to reduce their carbon emissions (or pay for emitting). VEGAs here may provide 'evidence based' approaches for doing so.

To conclude, VEGAs are often considered as an experimental form of governance (e.g. Hoffmann, 2011). Experiments are about trial and error. As such we may learn valuable lessons from VEGAs: some may prove successful, whilst others don't; and, most will probably fail in successfully addressing environmental harms. This study once more showed that VEGAs are no panacea in addressing environmental risks. Yet, as this study indicated, it is too black-and-white to state that without high levels of environmental performance VEGAs have no merit. Through subtle roles they may help to build the critical mass that will ultimately achieve the necessary change towards high levels of environmental performance in a sector.

References

Abaire, J. (2008). Green Buildings: What It Means To Be "Green" and the Evolution of Green Building Laws. *The Urban Lawyer, 40*(3), 623-632.

ABCB. (2010). *Energy Efficiency Provisions for BCA 2010: Volume Two*. Canberra: Australian Building Codes Board.

ABCB. (2011). *BCA 2011*. Canberra: Australian Building Codes Board.

AGO. (1999). *Australian Commercial Building Sector Greenhouse Gas Emissions 1990–2010*. Canberra: Australian Greenhouse Office.

AGO. (2006). *Scoping Study to Investigate Measures for Improving the Environmental Sustainability of Building Materials*. Melbourne: RMIT.

Allen Consulting Group. (2011). *The carbon price mechanism and the property sector*. Melbourne.

ASBEC. (2008). *The second plank: Building a low carbon economy with energy efficient buildings*. Sydney: Australian Sustainable Built Environment Council.

Australian Parliament. (2011). *Clean Energy Bill 2011*. Canberra: The Parliament of the Commonwealth of Australia.

Berglund, C., & Matti, S. (2006). Citizen and consumer: the dual role of individuals in environmental policy. *Environmental Politics, 15*(4), 550-571.

Bond, S. (2011). Barriers and drivers to green buildings in Australia and New Zealand. *Journal of Property Investment & Finance, 29*(4/5), 494-509.

CIE. (2011). *Effects of a carbon price on the building and construction industry*. Canberra: Centre for International Economics.

City of Brisbane. (2006). *Our shared vision: Living in Brisbane 2026*. Brisbane: City of Brisbane.

City of Sydney. (2011). *Sustainable Sydney 2030*. Sydney: City of Sydney.

COAG. (2009). *Council of Australian Governments' Meeting, Communiqué*. Darwing: Council of Australian Governments.

COAG. (2012). *Review of capital city strategic planning systems*. Sydney: COAG Reform Council.

Cooper, I., & Symes, M. (2009). *Sustainable Urban Development. Volume 4. Changing Professional Practice*. London: Routledge.

Corbett, C., & Muthulingam, S. (2007). Adoption of Voluntary Environmental Standards: The Role of Signaling and Intrinsic Benefits in the Diffusion of the LEED Green Building Standards, *unpublished manuscript*.

Darnall, N., & Sides, S. (2008). Assessing the Performance of Voluntary Environmental Programs: Does Certification Matter? *Policy Studies Journal, 36*(1), 95-117.

Dobrev, S., & Gotsopoulos, A. (2010). Legitimacy vacuum, structural imprinting, and the first mover disadvantage. *Academy of Management Journal, 53*(5), 1153-1174.

EDO. (2010). *The State of Planning in NSW*. Sydney: Environmental Defender's Office NSW.

Enjolras, B. (2008). A Governance-Structure Approach to Voluntary Organizations. *Nonprofit and Voluntary Sector Quarterly, 38*(5), 761-783.

Evans, B., Joas, M., Sundback, S., & Thobald, K. (2005). *Governing Sustainable Cities*. London: Earthscan.

Fielding, N. G., & Fielding, J. L. (1986). *Linking Data*. London: Sage.

Frynas, J. G., Mellhali, K., & Pigman, G. A. (2006). First mover advantages in international business and firm-specific political resources. *Strategic Management Journal, 27*(4), 321-345.

GBCA. (2011). *Putting a price on pollution:* . Sydney: Green Building Council of Australia.

GBCA. (2012). *Evolution. A year in green building*. Sydney: Green Building Council of Australia.

Government, N. (2009). *Territory 2030*. Darwin: Norhtern Territory Government.

Government of SA. (2011). *In a great state*. Adelaide: Government of South Australia.

Gunningham, N., & Sinclair, D. (2002). *Leaders and Laggards: Next Generation Environmental Regulation*. Sheffield: Greenleaf Publishing.

Haywood, C. (2011). Carbon Leakage – The First Mover Disadvantage: Australia's Trade-Related Assistance Measures for Emissions-Intensive, Trade-Exposed Industries. *Review of European Community & International Environmental Law, 20*(1), 78-90.

Henry, G., & Gordon, C. (2003). Driving less for better air: Impacts of a public information campaign. *Journal of Policy Analysis and Management, 22*(1), 45-63.

Heyes, A. G., & Maxwell, J. W. (2004). Private vs. Public Regulation: Political Economy of the International Environment. *Journal of Environmental Economics and Management, 48*(2), 978-996.

Hoffman, A. J., & Henn, R. (2009). Overcoming the Social Barriers to Green Building. *Organization & Environment, 32*(4), 390-419.

Hoffmann, M. (2011). *Climate Governance at the Crossroads*. Oxford: Oxford University Press.

Horvat, M., & Fazio, P. (2005). Comparative Review of Existing Certification Programs and Performance Assessment Tools for Residential Buildings. *Architectural science review, 48*(1), 69-80.

Howlin, P., Magiati, I., & Charman, T. (2009). Systematic Review of Early Intensive Behavioral Interventions for Children With Autism. *American Journal on Intellectual and Developmental Disabilities, 114*(1), 23-41.

Johanson, S. (2011, 22 August 2011). Australian homes still the world's biggest*. The Sydney Morning Herald*.

Khanna, M., & Brouhle, K. (2009). The effectiveness of voluntary environmental initiatives. In M. A. Delmas & O. R. Young (Eds.), *Governance for the Environment: New Perspectives* (pp. 144-182). Cambridge: Cambridge University Press.

Koehler, D. A. (2007). The Effectiveness of Voluntary Environmental Programs - A Policy at a Crossroads? *The Policy Studies Journal, 35*(4), 689-722.

Lieberman, M., & Montgomery, D. (1988). First mover advantages. *Strategic Management Journal, 9*(1), 41-58.

Longhurst, R. (2003). Semi-structured Interviews and Focus Groups. In N. J. Clifford & G. Valentine (Eds.), *Key methods in geography* (pp. 117-132). London: Sage Publishers.

Lyon, T. P., & Maxwell, J. W. (2007). Environmental Public Voluntary Programs Reconsidered. *The Policy Studies Journal, 35*(4), 723-750.

Maller, C., & Horne, R. (2011). Living Lightly: How does Climate Change Feature in Residential Home Improvements and What are the Implications for Policy? *Urban Policy and Research, 29*(1), 59-72.

Morgenstern, R., & Pizer, W. (2007). *Reality Check: The Nature and Performance of Voluntary Environmental Programs in the United States, Europe and Japan*. Washington, DC: RFF Press.

NSW Government. (2010). *Local Government Amendment (Environmental Upgrade Agreements) Act 2010 No 110*. Sydney: Government of New South Wales.

NSW Government. (2011). *NSW 2021*. Sydney: New South Wales Government.

OECD. (2003). *Voluntary Approaches for Environmental Policy*. Paris: OECD.

Pearce, D., Porter, G., Steenblik, R., Pieters, J., & Potier, M. (2003). *Envrionmentally harmful subsidies: Policy issues and challenges*. Paris: OECD.

Pivo, G. (2010). Owner-Tenant Engagement in Sustainable Property Investing. *The Journal of Sustainable Real Estate, 2*(1), 183-199.

Potoski, M. (2011). Voluntary programs, compliance and the regulation dilemma. In D. Levi-Faur (Ed.), *Handbook on the Politics of Regulation* (pp. 84-95). Cheltenham: Edward Elgar.

Potoski, M., & Prakash, A. (2009). *Voluntary Programs: a club theory perspective*. Cambridge: MIT Press.

Power, K. (2010). *Recycled water use in Australia: regulations, guidelines and validation requirements for a national approach*. Canberra: National Water Commission.

Queensland Government. (2011). *Green Door information paper*. Brisbane: Queensland Government.

Reid, E. M., & Toffel, M. W. (2009). Responding to public and private politics: Corporate disclosure of climate change strategies. *Strategic Management Journal, 30*(11), 1157-1178.

Richards, D. (1996). Elite Interviewing: Approaches and Pitfalls. *Politics, 16*(3), 199-204.

Robinson, W., & Min, S. (2002). Is the first to market the first to fail? Empirical evidence for industrial goods businesses. *Journal of Marketing Research, 39*(1), 120-128.

Scott, J., & Holder, J. (2006). Law and New Environmental Governance in the European Union. In *Law and New Governance in the EU and US* (pp. 211-242). Oxford: Hart Publishing.

Seale, C., Gobo, G., Gubrium, J. F., & Silverman, D. (2004). *Qualitative Research Practice*. London: Sage.

Short, J., & Toffel, M. W. (2010). Making Self-Regulation More Than Merely Symbolic: The Critical Role of the Legal Environment. *Administrative Science Quarterly, 55*(2), 361-396.

Silverman, D. (2001). *Interpreting Qualitative Data. 2nd edition*. London: Sage.

Stewart, R. (2006). Instrument Choice. In D. Bodansky, J. Brunnée & E. Hey (Eds.), *The Oxford Handbook of Environmental Law* (pp. 147-181). Oxford: Oxford University Press.

Thomas, I. G. (2010). Environmental policy and local government in Australia. *Local Environment, 15*(2), 121-136.

Thompson, S. (2007). *Planning Australia*. Cambride: Cambridge University Press.

Toller, A. E. (2008). Kooperation als Trend? *Zeitschrift für Vergleichende Politikwissenschaft, 2*(2), 315-246.

Trubek, D., & Trubek, L. G. (2007). New Governance & Legal Regulation: Complementary, Rivalry, and Transformation. *Columbia Journal of European Law, 13*(3), 539-564.

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

Weiss, J., & Tschirhart, J. (1994). Public information campaigns as policy instruments. *Journal of Policy Analysis and Management, 13*(1), 82-119.