

Australian Experience with Greenhouse NEPIs

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The Spread of New Environmental Policy Instruments (NEPIs) to Australia

Much of the theoretical and empirical discussion of 'new' environmental policy instruments (NEPIs) focuses on European experience and relates to *ecological modernisation* or *industrial transformation* (Anderson and Massa 2000; Christoff 1996; Gibbs 2000; Jordan *et al.* 2000, 2002, 2003a, 2003b; Knill and Lenschow 2002; Wurzel 2001). These perspectives concentrate on the contemporary evolution of interactions between environment, economy, society and public policy. Government imposed command and control measures to manage polluters are seen to be 'old' instruments that will be phased out with a shift to self regulation and incentives for industry. An intermediary phase of co-existence of 'new' and 'old' policy instruments together with 'new' and 'old' institutional structures to facilitate the implementation of agreements is expected. The theoretical assumption regarding NEPIs is that they have greater effectiveness and efficiency. The concept that such a change in the role of government would have positive environmental outcomes was initially academic but has been embraced by politicians in several European nations (Weale 1992). Micro-scale (voluntary agreements, eco-labelling, environmental and carbon taxes, and emissions trading) and meso-scale initiatives (national environmental plans and strategies for sustainable development) have been instituted. Jordan *et al.* (2003a) identify eight driving forces for the implementation of NEPIs:

1. dissatisfaction with environmental regulation
2. perceived superiority of NEPIs
3. neo-liberal ideas about deregulation
4. influence of the European Union in forcing adoption of NEPIs by some member states
5. growing international competition and economic recession driving a search for more cost-effective policy instruments
6. growing domestic support from elected politicians
7. interaction between different types of NEPI (e.g. the threat of environmental taxes has popularised voluntary agreements and emissions trading)
8. climate change has pushed governments to actively explore emissions trading and voluntary agreements.

In particular, implementation of the 1992 Framework Convention on Climate Change (FCCC) has been characterised by adoption of NEPIs and notably voluntary agreements. Governments including those in the EU, the US, Canada and Australia have taken steps to reduce greenhouse gas emissions via NEPIs. This has been in anticipation of the Kyoto Protocol coming into force. Article 4.2 of the FCCC states that each developed country party shall:

‘...adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modify long-term trends in anthropogenic emissions consistent with the objective of the Convention.’

Also Article 2.1 of the Kyoto Protocol states:

‘Each Party...shall...Implement and/or further elaborate policies and measures in accordance with its national circumstances, such as...encouragement of appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases...’

Both of these Articles point towards development of new policies and measures.

Policy formulation and implementation in relation to NEPIs in Europe has been underway for nearly two decades. However, according to Jordan *et al.* (2003a):

‘Attempts made in the late 1980s and early 1990s to replace regulation with NEPIs did not amount to much. In fact, there is now a widespread recognition that regulation is a necessary aspect of NEPI design and use.’ (Jordan *et al.* 2003a)

They report that barriers to NEPI introduction in Europe have included:

1. lack of expertise and familiarity
2. opposition from environmental pressure groups
3. opposition from vested interests (e.g. energy intensive industry opposition to carbon taxes and emissions trading)
4. fears about competitiveness
5. public protests related to distributional impacts of environmental taxes (i.e. related to rising fuel prices)
6. EU requirements (e.g. voluntary agreements taking the form of legal contracts)

(Jordan *et al.* 2003a)

From the early 1990s onwards, NEPI adoption moved beyond Europe along with greater internationalisation of environmental policy via environmental regimes. The report of the World Commission on Environment and Development (Brundlandt 1998), the UN conferences in Rio in 1992 and Johannesburg in 2002, and the influence of international organisations such as UNEP, the OECD and the Global Ecological Labelling Network all have strongly shaped and influenced the direction of environmental policy both locally and globally. Tews *et al.* (2001) observe that:

‘The recent shift in the prevailing policy pattern from a sectorially fragmented and largely legal regulatory mode to an integrated environmental policy approach relying increasingly on ‘softer’ and/or more flexible instruments such as voluntary instruments, ecolabels, or ecological tax reforms is equally proceeding on a global scale. ... in addition to the national demand for adequate environmental policy instruments, the spread of policy innovations is influenced by

- the presence or absence of international platforms or promoting agencies, which have placed the advancement of certain NEPIs on their agenda; and
- the specific characteristics of the policy innovation itself.’

Jänicke and Jörgens (1998) also reflect that environmental policymaking at the domestic level has come under considerable international scrutiny and the influence of epistemic communities. As Hass (1992) describes, these groups are knowledge based networks of environmental bureaucrats, diplomats and scientists who influence environmental policy innovation on the international environmental agenda and develop shared perceptions of innovations that should be adopted at the national level.

Australian officials and scientists have been active participants in these international environmental fora and processes from the early 1990s. After the Rio conference, Australia adopted several meso-scale 'new' environmental policy instruments including a *National Greenhouse Response Strategy*, a *National Strategy for Conservation of Australia's Biodiversity*, and a *National Strategy for Ecologically Sustainable Development* (Commonwealth of Australia 1992a, 1992b, 1992c).¹ All of these initiatives arose from international agreements or commitments and arguably from a desire to maintain Australia's image as with a good environmental citizen. However, Australia has a very different economic base to the European nations such as Germany, the Netherlands, Denmark, and the United Kingdom which have also been proactive epistemic community participants. As Walker (1994) has said:

'Australia's dependence on exports of primary or minimally processed products, the dominance of foreign capital in manufacturing investment, and the large size of the service sector...all create strong pressures on governments, state and federal, for economic growth mythologised as 'development'...the interlocking of Australian business, government and bureaucracy is pronounced reflecting a convergence of government and private interests in 'development.'

Regulatory policy in Australia is responsibility of the states and has been characterised as 'haphazard, ad hoc and piecemeal' (Walker 1999a) and 'generally reactive' (Walker 1999b). It has been over the last two decades been accommodative towards industry. In many cases environmental regulations that are put in place are not well implemented or monitored due to lack of resources available to regulatory agencies. Also stringent regulatory standards are not set when it is perceived industry is not able to comply with them.

At the same time the precautionary principle, measures directed towards ecologically sustainable development and public participation in the policymaking process have come to underpin regulatory, legislative and institutional undertakings at federal, state and local government levels in Australia over the last decade. Crowley observes that:

'There is no doubt that policy rhetoric has become more eco-friendly recently, with the adoption of notions such as ecological integrity, sustainability, diversity, precaution, synergism, whole-of-life-cycle planning and best practice environmental management.' (Crowley 1999)

In particular, development, implementation and review of environmental policies and programs at the micro level have focussed on the goal of international best practice. The now standard directive given to consultants by federal and state environmental agencies as a component of policy reviews is to research and make recommendations taking into account best practice. This aspiration for international best practice policies to be adopted and especially NEPIs would appear to conflict with developmentalist goals of enhancing an economy largely dependent on resource extractive and energy intensive industries. However, NEPIs are not seen in Australia as a constraint on development (Papadakis and Grant 2003).

¹ The *National Greenhouse Response Strategy* was subsequently revised and reissued as the *National Greenhouse Strategy* (Commonwealth of Australia 1998) (Bulkeley 2000; Taplin 1994; Taplin and Yu 2000).

Environmental micro-policy critique has been seen as being potentially fruitless in the current Australian situation with the argument being that ‘...many Australian theorists fail to focus upon micro detail...when politics is so clearly driving environmental policy performance...’ (Crowley 1999). By contrast the remainder of this chapter does address the micro level of Australian NEPI implementation so as to derive some case study understanding of what the political status and role of NEPIs is in Australia.

Australian Greenhouse NEPIs

Aspects of Australian experience with NEPIs have been discussed by Papadakis and Grant (2003). Also Jordan *et al.* (2003a) have compared Australian adoption of NEPIs with the uptake in European nations. Papadakis and Grant (2003) comment that Australian NEPIs are predominantly controlled by the state which has ‘...genuine interest in and experimentation with new tools...’ and that the regulatory situation with respect to command and control regulation versus adoption of NEPIs is characterised by:

‘...continuity in traditional regulatory approaches, with several qualifications: growing emphasis in voluntary agreements, targeting of resources to encourage the creation of competitive eco-efficient industries, the importance of strategic (rather than operational) interventions by the Commonwealth and other agencies and research on economic or market-based systems (such as emissions trading).’ (Papadakis and Grant 2003)

Australia is not seen internationally as a leader in the adoption of NEPIs (Jordan *et al.* 2003a) in comparison to the Netherlands, Germany and Finland but has undertaken a range of NEPI initiatives and, in particular, in relation to climate change. Experience with two particular NEPIs administered by the Australian Greenhouse Office, the Greenhouse Challenge and Greenhouse Friendly programs, is discussed here. These policy instruments have been implemented, together with numerous other greenhouse policy initiatives, notwithstanding the Howard Liberal-National Coalition Government’s negative position regarding the Kyoto Protocol (Yu and Taplin 2000). This standpoint was stated openly by the Prime Minister in a speech in November 2002:

‘Currently it is not in the national interest to ratify the Kyoto Protocol because, under the terms of this arrangement, many of our competitors do not face the obligations we would face. Australia would lose investment to these countries and the greenhouse gases would simply change location. Indeed many countries have less stringent environmental standards than Australia...For example, under the Kyoto Protocol, a company wishing to establish a new aluminium plant in Australia may face a greenhouse-reduction cost penalty that they would not face in countries like China or India. In a competitive global market, this cost burden may be enough to see the plant is built elsewhere, leaving Australia the poorer without any global gain.’ (Howard 2002)

The Greenhouse Challenge and Greenhouse Friendly Programs

A fundamental underpinning of the Greenhouse Challenge and Greenhouse Friendly programs is that they were formulated in line with the ‘no regrets’ framework set out in the *National Greenhouse Strategy* (Commonwealth of Australia 1992a; 1998) and accordingly are not intended to compromise business objectives of profitability and growth. Aspects of the operation of these programs are given below.

The Greenhouse Challenge Program

The Greenhouse Challenge program was initiated in 1995 in response to a request from major Australian industry players (many having transnational affiliations) for a voluntary agreement on greenhouse between government and industry. At the time there had been considerable public debate in Australia about the potential introduction of a carbon tax although little serious interest had been expressed by the federal or state governments or elected politicians. Major industry actors approached the Keating Labor Government to institute a voluntary greenhouse program with a view to avoiding a carbon tax (Commonwealth of Australia 1999). The business impacts of carbon taxes that were being reported from other countries undoubtedly drove this request for a greenhouse NEPI in Australia.

Voluntary agreements on greenhouse abatement have been taken up in several countries (Commonwealth of Australia 1999; WBCSD and WRI 2001). Such agreements were instituted from 1992 onwards and include:

- Netherlands: Long Term Energy Efficiency Agreements (1992)
- Canada: Climate Challenge Voluntary Challenge and Registry (1994)
- New Zealand: Industry Challenge (1994)
- USA: Climate Challenge Program (1994); EPA Climate Leaders Initiative; Voluntary Reporting on Greenhouse Gas Emissions (1605b Program)
- Germany: Joint Declaration of the German Industry on Global Warming Prevention (SVE) (1995)
- Japan: Keidanren Voluntary Greenhouse Action Plan for the Environment (1997)
- UK: Greenhouse Reporting Program (1999)²

Accordingly, it can be seen that voluntary agreements on greenhouse were already underway in the Netherlands, Canada, New Zealand and the US when the Australian Greenhouse Challenge program was initiated.

The Greenhouse Challenge Office (GCO) was set up in Canberra in 1995 as a federal interdepartmental effort and was overseen by three agencies: the Department of Primary Industries and Energy (DPIE), the Department of Environment, Sport and Territories and the Department of Industry, Science and Tourism. The GCO was located in DPIE offices. When the Howard Coalition Government gained power in 1996, the program was allowed to continue notwithstanding cuts to other areas of funding for climate change. In 1998, the GCO was transferred to the status of a program administered by the Australian Greenhouse Office (AGO) with the inception of the agency.

The Greenhouse Challenge program facilitates the establishment and monitoring of cooperative agreements between members of industry and government. Industry members undertake to abate their greenhouse gas emissions through energy and process efficiency and by enhancing greenhouse sinks. As indicated above, the program is administered by the Commonwealth but does not have legislative backing. In May 2003, there were 820 participants in the Greenhouse Challenge program.

Organisations that volunteer to join the Greenhouse Challenge program enter into a cooperative agreement that is non-binding and is not a legal contract. Cooperative agreements can be individual, facilitative or aggregate:

- Individual cooperative agreements are agreed with a company to reduce emissions for the company
- Facilitative agreements are made with a representative body such as industry association which actively encourages its members to join the Greenhouse Challenge

² Also interestingly the World Wildlife Fund instituted a voluntary Climate Savers Program for industry (WBCSD and WRI 2001).

- An aggregate agreement is made an industry sector, or part thereof, with an industry association entering into agreement to reduce emissions on behalf of named member companies (e.g. Cement Industry Federation).³ (Commonwealth of Australia 1999)

Greenhouse Challenge members are required to prepare an action plan for greenhouse emissions abatement and under their agreements to report annually on their progress with emissions reductions. Actual details of member reports are confidential but summative information is publicly reported. Also aggregate agreement reports from industry associations do not identify abatement by individual corporate entities but only for the sector as a whole (e.g. cement and aluminium industries). As such, there is a considerable lack of transparency in aspects of handling of information by the program.

The *Greenhouse Challenge Factors and Methods Workbooks* (AGO 2003a) are the key supporting documents of the program. The workbooks outline the process of how a business organisation can calculate the greenhouse gas emissions associated with its operations. Data inputs required by the workbooks include quantities of solid fuels, gas and electricity consumed. Confidence in greenhouse gas calculations directly corresponds to the accuracy of these measured amounts. The success of the Greenhouse Challenge Program in turn relies on the accuracy of greenhouse reporting. The focus on accurate emissions reporting has ramifications for potential involvement of Australia in carbon trading (domestically or internationally under the Kyoto Protocol) and environmental reporting.

The issue of the quality of reported greenhouse emissions data under the Greenhouse Challenge Program first arose during the 1999 review of the Greenhouse Challenge program and subsequently with the 2002 independent verification. Reporting varies from 'comprehensive and detailed documents' to inconsistent (i.e. not annually) reporting of variable quality. The *Greenhouse Challenge Evaluation Report* stated:

'Because reporting requirements were not defined at the beginning of the program there has been a blurring over time of what is required, and this has resulted in inconsistent reporting across participants and uncertainty among some participants...Much of this has been because, in an attempt to keep the program flexible to encourage broad participation, no standard format for agreements was originally developed.'³ (Commonwealth of Australia 1999)

Commentary from participants in the Greenhouse Challenge program included:

'We used the workbook to put together the first progress report. There was no consistency and we didn't know what they were looking for. We did a brief report, while others did huge reports.'³ (Commonwealth of Australia 1999)

Some standardisation of the annual report format has occurred since these comments were made with the implementation of an electronic proforma report format. However, consistency in reporting is still proving a challenge due to the variations in types of members and industry sectors involved and the capacity of companies to fulfil reporting requirements.

Verification by independent environmental auditors is seen to be a mainstay of the Greenhouse Challenge program as it '...continues to play an important role in improving the quality of reporting...as well as enhancing the level of program transparency and public accountability.'³ (AGO 2003b). The 2002 Independent Verification of the Greenhouse Challenge was the third independent verification organised by the AGO³ and arguably more comprehensive than previous rounds. Twenty-three members' reports and reporting procedures were verified under commercial-in-

³ A pilot independent verification was run for four members in 1998. In 2000, 31 Greenhouse Challenge members were independently verified.

confidence requirements regarding company data. The independent verification found that:

- '16 Members were verified as having reporting that was comprehensive, comparable and free from material discrepancies;
- 1 Member had a material discrepancy in relation to their greenhouse gas inventory;
- 3 Members has material discrepancies in abatement estimates (2 of these Members also could not be fully verified due to a lack of supporting documentation); and
- 3 other Members could not be verified due to a lack of some supporting documentation.' (AGO 2003b)

These results would be unacceptable for a financial audit as would the generous materiality threshold of 10% that was adopted for the verification (AGO 2003b). Any discrepancy of greater than, or equal to, 10% of abatement reported was considered material or significant. This is quite a liberal materiality threshold as voluntary greenhouse programs implemented in European nations use 5%. Lack of systematic emissions and sink data archiving by companies proved to significant problem that arose during the verification with several of the members revealing that they were not able to retrieve their records (AGO 2003b). Also some verifications for companies were delayed due to overdue annual reports and/or delays in report approval by the AGO (AGO 2003b).

A final and important aspect of the operation of the Greenhouse Challenge program is the role of the Joint Consultative Committee (JCC) which was first established in 1998. The JCC provides a decision-making forum for government and industry representatives on key program and implementation issues for the Greenhouse Challenge program. All members of the JCC need to reach consensus for decisions on issues such as materiality, the requirements for reporting, and content of documents and guidelines that are prepared in relation to the program. This means that industry via the JCC has considerable influence on the program's implementation and may block any decisions that are considered detrimental to industry's economic viability.

Several recommendations for improvement of the Greenhouse Challenge reporting procedures and the independent verification process were made by the AGO in 2003. These included moving to a 5% materiality threshold for the next round. The AGO report on the 2003 independent verification stated:

'...a general conclusion that can be drawn from this verification round is that ongoing refinement of verification procedures and more explicit guidance to both verifiers and Greenhouse Challenge members is required to ensure that reporting and verification standards continue to move towards world's best practice.' (AGO 2003b)

The goal of international best practice for the program has several barriers due to the implementation of the program to date. These include:

- right of veto by industry to any modifications or new initiatives associated with the program
- lack of reporting stringency
- non-binding nature of the cooperative agreements
- lack of data transparency due to commercial-in-confidence considerations particularly with industry association aggregate reporting
- uneven implementation by members

Some Greenhouse Challenge members take their obligations seriously and report regularly and accurately but the quality of reporting of some members is not of an acceptable standard.

Greenhouse Friendly Product Labelling Program

The Greenhouse Friendly program was launched in 2001 and involves promotion and certification of ecolabelling for climate change abatement. Consumer goods and services that have all *cradle to grave* greenhouse gas emissions offset by corresponding emissions abatement can be certified. Independent environmental auditors verify the life cycle assessments of products that companies submit to the AGO.

Unfortunately the Greenhouse Friendly program has not been embraced by industry or the consumer. By the end of 2003, the only products certified, somewhat incongruously, were petroleum and electricity products: 'Ultimate' premium unleaded fuel, and Global Choice commercial fuels marketed by BP; and electricity by AGL. BP has provided sink abatement to offset their emissions associated with their products. The greenhouse emissions associated with AGL electricity are offset through landfill gas flaring projects.

Although this program is directed towards consumers, it is questionable whether the Australian public is even aware of the Greenhouse Friendly ecolabel and whether AGO resources directed towards the program have resulted in effective greenhouse abatement action.

Ecolabels have been very successful in Europe and particularly in the Netherlands and Germany where they are widely supported by industry, the public and NGOs. Part of the reason for industry's support in these nations appears to be that ecolabels often have been the precursor for tax benefits. However, Australian experience with ecolabels has been less satisfactory (Johnson and Lundie 2002). This has been due to environmental NGO and consumer association concerns about *greenwash* together with industry critique of ecolabels. In particular, the Australian Government initiated 'Environment Choice Australia' label was withdrawn after two years of operation in 1994 due to lack of industry support. Recently in 2002, a new NGO environmental labelling body has been established as a further attempt to promote ecolabelling in Australia. This new program has not had significant impact as yet. Given this background, the Greenhouse Friendly ecolabel was probably doomed from the very start.

Concluding Discussion

NEPIs in the form of voluntary agreements have been used extensively in the Netherlands, Germany and the United Kingdom. As mentioned earlier in the chapter, Jordan *et al.* (2003a) have noted that European Union as a whole has been reluctant to adopt voluntary agreements entirely free of a legislative superstructure because of:

- the suspicions or mistrust of environmentalists
- perceived transparency problems with VAs
- officials' concerns about long-term enforceability and effectiveness
- industry's preference for tradition regulation because of its *level playing field* nature.

These transparency, enforceability and level playing field concerns parallel the shortcomings of the Greenhouse Challenge program in Australia and call into question the effectiveness of voluntary agreements as currently adopted in Australia in comparison to the traditional regulatory approach.

Examination of aspects of the Greenhouse Challenge program reveal that it is currently a weak NEPI. Capacity building has been undoubtedly the most significant achievement of the program to date. Training has been provided for consultants in greenhouse gas reporting and the program has provided information to professionals in numerous business and industry sectors related to greenhouse emission assessment. This capacity building for could have long-term benefits if Australia eventually

becomes involved in domestic or international emissions trading. In addition, the program has assisted in facilitating the uptake of energy efficiency upgrades and the reporting of these by small and medium enterprises (SMEs); arguably energy improvements by major industry players may have been implemented for financial reasons regardless of the program.

If the Greenhouse Challenge NEPI is to become more effective, improvement with regard to quality of reporting, adherence to data archiving, the materiality threshold and provision of a level playing field for all members is essential. Also public accountability issues such as transparency of industry association agreements and industry control of the JCC are significant concerns.

Examination of the Greenhouse Friendly ecolabel reveals that it is a failing NEPI although ample resources have been allocated to it. This has been due to lack of industry interest and participation. It is difficult to appreciate why the Greenhouse Friendly program was initiated given previous lack of business support for ecolabelling programs in Australia.

The limited effectiveness of the Greenhouse Challenge and Greenhouse Friendly NEPIs can be attributed to several factors:

- lack of industry incentives for participation. Industry involvement has been patchy; in some cases participation has been exemplary but in others the response has been unmotivated;
- the AGO's implementation procedures;
- the AGO's capacity to put into effect compliance with agreements; and
- the design of the process for collaboration and information sharing between the AGO and industry.

As mentioned earlier, the political backing of the Greenhouse Challenge program moved from the Keating Labor Government to the Howard Coalition Government. Both Governments were supportive of *light handed* regulation or deregulation and were accommodative towards industry's desire for the establishment and continuation of voluntary greenhouse mitigation and reporting. Although considerable Australian Government and industry resources have been directed towards the Greenhouse Challenge NEPI, its impact has been inconsistent. If the program is not carefully supported, monitored and reviewed with legislative and legally binding contractual improvements made to enhance effectiveness, it has the potential to move to the status of symbolic policy (Edelman 1964). Whether this happens is dependent on political support. Crowley (1999) has observed about the current Australian Government that unfortunately:

'Today notions of federal environmental responsibility have sunk to previous unknown depths under the conservative Howard Coalition Government, even as it claims to be staking out new policy terrain...'

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