

# 8. A Recent Scandal: The Home Insulation Program

Chris Lewis

## Introduction

The policy debacle that was the Rudd Labor Government's Home Insulation Program (HIP) cannot be disputed.<sup>1</sup> First, four young Australians died installing insulation in homes before the program was cancelled on 22 April 2010. Further, about \$1 billion (approximately 40 per cent) of the \$2.45 billion cancelled scheme was, in the end, used to cover its costs, including safety and quality inspections for about 200 000 homes fitted with ceiling batts or foil (Berkovic 2010f). As of 10 December 2010, the number of fire incidents attributed to the HIP since May 2009 had reached 202, including 165 attended by fire authorities, with another 37 confirmed through roof inspections, although 87 per cent of incidents (176 households) resulted in no structural damage (DCCEE 2010).

The HIP came under fire from many quarters. In July 2010 a senate committee called for a royal commission in order 'to unravel the gross and systematic failures in the development and implementation of the Program' (Environment, Communications and the Arts References Committee 2010, ix). Julia Gillard, who replaced Rudd as Prime Minister on 24 June 2010, stated during the election campaign that 'the insulation scheme was an absolute mess' (Karvelas and Franklin 2010). And the Auditor-General, while acknowledging its role as part of the Government's response to the global financial crisis (GFC) in terms of generating economic stimulus and employment (and possible energy efficiency gains), concluded that 'stimulus objective overrode risk management practices that should have been expected given the inherent program risks'. The Auditor-General stated that the HIP 'has been a costly program for the outcomes achieved', that there 'still remains a range of safety concerns' with 'serious inconvenience to many householders', that reputational damage had been caused to the insulation industry, and events had 'harmed the reputation of the Australian Public Service for effective service delivery' (Auditor-General 2010, 26–7).

---

<sup>1</sup> This chapter refers to the Home Insulation Program (HIP) throughout; the scheme was known as the Home Owner Insulation Program until September 2009.

In analysing the HIP as a case study, focusing on the Rudd Government's determination to implement a program speedily without adequate consultation and planning, this chapter argues that the HIP did not give sufficient attention to key measures advocated by widely used texts on Australian public policy, even allowing for differences between them. For instance, the *Australian Policy Handbook* (Althaus et al. 2007) (hereinafter *APH*) provides a normative/guidelines approach to public policy by illuminating various stages of policy planning and implementation, while Hal Colebatch (2006, 1), in *Beyond the Policy Cycle: The Policy Process in Australia*, cautions that 'the world of policy is populated by a range of players with distinct concerns, and that policy-making is the intersection of these diverse agendas, not a collective attempt to accomplish some known goal'.

Both these texts advocate policy recommendations that would have improved the operation of the HIP if implemented. Instead, as this article will highlight, the HIP proved a debacle on three counts. First, in terms of leadership, the Rudd Government's determination to implement a policy speedily undermined any chance of formulating a more balanced and effective policy approach while also placing immense pressure on the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) and State/Territory governments. Second, the Government downplayed the importance of the consultation—a crucial dimension to the HIP given that various safety and training concerns were expressed by a number of industry players. Third, there is the art of judgment: the Government displayed a lack of commonsense in failing to anticipate the possibility of substantial fraud and rorts.

## The Role of Government Leadership

With any public program, the quality of ministerial leadership is crucial to success. In this regard, the *APH* and Colebatch approaches are similar: they both acknowledge the influence of powerful ministers and departments. As Scott Prasser observes, 'the public bureaucracy is now expected to be more responsive to the demands of elected governments and their policy agendas' (2006, 268–9). The *APH* also states that 'the policy domain speaks through the heads of central agencies such as [the Department of the] Prime Minister & Cabinet (PMC), the Department of Finance and Administration (Finance) and Treasury, though policy itself is typically developed within the relevant policy department. The central agencies also speak for the final domain, administration' (Althaus et al. 2007, 26).

For the Rudd Government, the major goal was speedy implementation rather than a policy that was supported by all involved players. It has been documented

that DEWHA had earlier favoured a five-year roll-out of the HIP given its nature and size, yet the Government wanted a two-and-a-half-year roll-out (Auditor-General 2010, 69). The Government's decision—approving the HIP as part of the \$42 billion Nation Building and Jobs Plan (Rudd 2009a, 2009b)—followed Treasury's advice that the GFC provided an unprecedented external negative shock that needed a stimulus package to counter its likely impact in 2010–11 given that gross domestic product (GDP) would fall and unemployment would increase (SERC 2009, E3–E4).

The Government promoted large-scale participation as quickly as possible. The HIP included a rebate of \$1600 for householders (intended to run until 31 December 2011); Medicare was responsible for online registration and payment to installers where approved by DEWHA (Auditor-General 2010, 49). According to DEWHA, the \$1600 rebate was designed 'to achieve maximum impact in line with the economic stimulus and employment objectives of the program' (DEWHA 2009b, 14). The Insulation Council of Australia and New Zealand (ICANZ), in 2007, estimated that it would cost \$1200–1500 to have ceiling insulation professionally installed in an average home, and that a \$500 rebate would achieve only a 28 per cent uptake over three years (D'Arcy 2010, 72; Deloitte Insight Economics 2007, 6; ICANZ 2010a, 11).

To manage risk, DEWHA did follow part of the policy framework suggested by the APH by commissioning (in March 2009) Minter Ellison to undertake a *Risk Register and Management Plan*. Completed in April 2009, and publicly released in February 2010, the *Risk Register* listed 19 individual risks. These included an extremely limited time frame for moving from a system where householders paid the installer and then claimed \$1600 reimbursement to a full rebate system with no upfront payment (by 1 July 2009); inadequate regulation to prevent fraudulent or inappropriate behaviours; inadequate training; and quality issues (Minter Ellison 2009, 1).

Although Minter Ellison urged that the start of the rebate scheme be delayed three months to 30 September 2009 given the above concerns (Minter Ellison 2009, 1), DEWHA decided not to do so on the basis it had addressed the risks identified. From 1 July 2009, if the contracted price was less than the \$1600 rebate limit, householders paid nothing for insulation. Installers were paid directly through Medicare's claim-processing system (Environment, Communications and the Arts References Committee 2010, 10). Further, under the *Risk Register and Management Plan*, fraud risk was transferred from the Commonwealth to providers where possible; installers were required to be insured properly and indemnify the Commonwealth against claims/loss arising from installers' actions (Minter Ellison 2009, 1).

The above measures demonstrate the Government's determination to implement the HIP with minimal delay. As one document reveals, the Nation Building and Jobs Plan was overseen by the Commonwealth Coordinator-General (then within the Department of the Prime Minister and Cabinet, PM&C), whose purpose was to 'break red tape and get work happening on the ground as quickly as possible' (Australian Government 2009, 12). Michael Mrdak, former Coordinator-General, has stated that

the Government had clearly set out a very ambitious program for the rollout of a number of these infrastructure initiatives...The time frames were set out in the National Partnership Agreement, which was agreed by COAG [the Council of Australian Governments]. There certainly was a strong view by government and by senior officials that we should continue to press on to meet the time frames that had been set out by the government. (Mrdak 2010, 10)

On 18 February 2009, a representative of the Office of the Coordinator-General informed an industry consultation that '\$2.7 billion worth of funding is in part structured around the Government going into deficit for a short period of time. Clear statements from [the] Treasurer and the Prime Minister state that funding is required to be spent within 2.5 years with a cap of \$1600 per household' (ICANZ 2010b).

The Government's determination to implement the HIP speedily defied the significant apprehensions of various State governments, who were simply expected to fall in line. South Australia's Coordinator-General, Rod Hook, told his Commonwealth counterpart, Michael Mrdak, then a deputy secretary in PM&C, that he had concerns about the program 'from day one in February 2009'. Hook told the ABC of concerns about safety and how the Commonwealth 'was going to audit the program to ensure it was getting value for money and proper installation' (Berkovic 2010c). According to Western Australia's Treasurer, Troy Buswell, DEWHA officials told officers of State consumer agencies via a phone hook-up in April 2009 that a 10 per cent failure rate was to be expected (up to 100 000 homes) (Tillett et al. 2010). The ABC (and other sources) revealed that DEWHA officials, during April 2009, told State and Territory officials that the extensive roll-out of insulation posed a risk to lives and property, and that the program would effectively be unregulated (Berkovic with O'Brien 2010; Hudson 2010a; *The Canberra Times* 2010c).

State officials were concerned that the Commonwealth had not mandated qualifications for insulation installers, had no criteria for companies being listed on a federal register of installers, and that being on the register would be seen by consumers as government endorsement. They were also not impressed with the prospect of responsibility for any accident, death or blaze caused by

the program (Probyn and Tillett 2010). The NSW Government was so alarmed by the HIP that just a month after it started it urged the Commonwealth to pay to have 10 per cent of work inspected. This was revealed by previously confidential documents (obtained under freedom of information) sent to Peter Garrett, the Commonwealth minister responsible for the program, in September 2009 because of concern about 'a spike in the number of house fires' linked to the HIP (Farr 2010).

The Rudd Government's approach to the HIP was very much top down: DEWHA and other levels of government were expected to fall in line. As revealed by an anonymous insider from DEWHA on ABC TV's *Four Corners* (in April 2010), 'we were told many times by senior management that the technical and safety issues were of less importance than getting this programme up and running and creating jobs' (Carlisle 2010).

## Consultation

The Rudd Government's determination to implement the HIP speedily raises the question of how adequate was consultation with various key industry players.

Both the *APH* and Colebatch approaches emphasise the importance of consultation; significantly, the *APH* notes the problem 'of how to weight differing voices' (Althaus et al. 2007, 98). The *APH* makes a number of points. First, consultation provides 'an opportunity for policy makers to invite and obtain stakeholder input into the calculation of whether any particular policy is feasible' (Althaus et al. 2007, 98). Second, consultation serves 'to improve the quality of policy decisions through access to relevant information and perspectives, including exchange of problem and solution definitions, alternatives and criteria' (Althaus et al. 2007, 119). Third, consultation promotes 'understanding, acceptance and legitimacy of proposed policies' and 'promotes consensus about policy choices...by providing transparency, accountability and opportunities for participation' (Althaus et al. 2007, 119–20). Fourth, consultation boosts a policy's feasibility by improving 'the confidence of decision makers that a policy is not going to be riddled with embarrassing problems even before it commences the implementation phase' (Althaus et al. 2007, 98). Similarly, Prasser notes that

every policy issue has its own particular group of interests, so one of the tests of good politics and good policy is that there is overall support for any new proposal from these groups. The range of interest groups will vary from issue to issue, and across different policy areas. The task is to

recognise what groups are important and to gauge their influence and power. This will partly depend on the party in power. (Prasser 2006, 273–4)

The reality is that the HIP applied to an industry where the need for extensive consultation was essential if only for the major safety risks. While it has been noted that the home insulation industry previously had few special regulations, besides being ‘subject to normal work and safety provisions and employers’ duty of care’, with insulation ‘frequently installed by householders themselves’ (Tiffen 2010), greater attention to consultation should have been a given because the insulation of Australian homes was moving from the previous historical rate of about 65 000–70 000 per year to 2.7 million homes in 2.5 years (Combet 2010a, 2149–51; ICANZ 2010a, 6). Further, any malpractice within the insulation industry was likely to multiply owing to the likelihood that the number of installer companies would increase substantially from an estimated 200 established businesses installing insulation prior to the HIP (Auditor-General 2010, 65–6).

It defies belief that the DEWHA did not listen more to members of the electrical industry during the design stage of the HIP, even allowing for the restricted time frame for implementation. The Auditor-General (2010, 67) noted that ‘consultation would most likely have enhanced the department’s awareness of safety issues indicated’.

The safeguards that were introduced proved inadequate, as was predicted by many industry groups (see below). From 1 July 2009, installer businesses were required to be registered with DEWHA, to have occupational health and safety (OH&S) training, and to comply with relevant Australian Standards for insulation materials and installation (Installer Advice nos 9, 12). There was mandatory minimum occupational health and safety training for all personnel involved in installation; installers had to comply with State/Territory workplace and occupational health and safety laws; and installation practices were governed by relevant Australian Standards and State/Territory regulations for laying thermal insulation and working around electrical wiring (DEWHA 2009b, 5, 26). The Construction and Property Services Industry Skills Council also produced a range of training resources for registered training providers, including a ‘pocket book’ for installers available from 1 August 2009, which contained information about common installation hazards including electrical hazards (CPSISC 2009, 2).

While the Auditor-General has suggested that ‘strong and divergent views among stakeholders made it difficult for DEWHA to make a judgement on how

stringent to make the terms and conditions’ (Auditor-General 2010, 77), there is considerable evidence that important concerns from a variety of industry players were virtually ignored.

There had been—with substantial justification—extensive concern about electrical safety prior to the HIP’s implementation, even though the ICANZ argued that it did not support compulsory electrical inspections on the basis that ‘experienced insulation installers know what to do and have managed this safely over the years’ (ICANZ 2010a, 17). The Master Electricians Australia (MEA) expressed concern about inadequate training given the various electrical risks. These included pre-existing faults in wiring in the roof space and faulty installation of aluminium foil (a conductor of electricity) (Garrett 2010a; MEA 2009, 3).

On 18 May 2009, the MEA warned about ‘a very serious fire risk’ being caused by the incorrect installation of woollen batts, ‘especially in older homes’ (MEA 2009, 3). The National Electrical and Communications Association (NECA), having stated in February 2009 that ‘there is a significant risk of electrical equipment overheating especially in the event of downlights in ceilings being covered if insulation is installed inappropriately’, recommended that a licensed electrician check wiring before installation (Bostrom 2010, 53–4; NECA 2009). The NECA’s Chief Executive, James Tinslay, wrote to Peter Garrett (on 9 March) about the ‘inherent dangers’ of installing insulation near electrical cables in regard to fires, and the need to train installers (Berkovic with O’Brien 2010; Hudson 2010a; NECA 2009), while also stressing that there were ‘inherent dangers’ with foil insulation (Balogh et al. 2010). The National Secretary of the Electrical Trades Union, Peter Tighe, reported that his union raised concerns about poor electrical safety aspects early in 2009 during discussions with a departmental advisory group reporting to Garrett; ‘they ignored our advice and gave the impression they thought our concerns were excessive’ (*The Canberra Times* 2010b).

The Government also ignored knowledge that plastic staples had been recommended in New Zealand since 2007 (NZMED 2007). Moreover, ICANZ noted on 18 February 2009 that a similar program in New Zealand ‘had to be suspended because three people electrocuted themselves’ (ICANZ 2010b).

Expressing concern about training standards given the risks of insulation installation, Dave Noonan, National Secretary of the Construction Forestry Mining and Energy Union (CFMEU), reported:

We made it very clear that people working in this program would need to be trained to identify potential electrical risks and they’d need to be aware of the risks involved in working at heights and in confined

spaces...We also made it clear this program would attract young, vulnerable workers with no experience in the construction industry. We said they'd also need proper training regarding unsafe work practices and their right to refuse to work in an unsafe environment. (Beeby 2010a)

The CFMEU was so concerned about inadequate funding for training installers under the program that, with the exception of New South Wales, its registered training organisations throughout Australia refused to participate in the program. Assistant National Secretary, Lindsay Fraser, a member of the technical working group appointed in 2009 to advise the Government on job opportunities and training, stated that 'they were not prepared to fund the training to the level we argued was necessary' (Beeby 2010c).

With the deaths of installers—the first on 19 October 2009—the Rudd Government adopted tougher requirements. From 2 November 2009, metal fasteners were banned; plastic staples were made compulsory. It also became mandatory for covers to be placed over downlights and other ceiling appliances, and an electrical safety inspection program was announced for foil installations in Queensland (Garrett 2009a). After the fourth insulation-related death, the Government suspended the use of foil insulation from the HIP (9 February 2010) (*The Canberra Times* 2010a). The HIP closed on 19 February 2010 for safety and compliance reasons (Garrett 2010b), and was ultimately axed on 22 April 2010 after the Government received a report by Dr Allan Hawke (2010) that expressed 'grave concerns about the wisdom of proceeding' and 'safety and quality risks' that 'cannot be fully abated' (Combet 2010b).

It was only on 17 December 2009, following the third insulation-related death, that the Government announced that training requirements now applied beyond supervisors to all employees involved in installation, although this was not to take effect until 12 February 2010 (Garrett 2009b, 2009c). Any company unable to provide proof of training in one of the three competency criteria by their workers would be suspended (Auditor-General 2010, 108; Rehn 2010). As of February 2010, only 2738 (37 per cent) of registered installers could provide evidence of minimum competency requirements; the Auditor-General has suggested that this low figure may be explained by higher costs of compliance with the new requirements (Auditor-General 2010, 108).

As for potential industry benefits, Brian Tikey, representing the Aluminium Foil Insulation Association (AFIA), wrote to Prime Minister Rudd in February 2009 about the rebate. Tikey argued that the subsidy would open the door to a flood of cheap fibreglass imports and do little to benefit Australian manufacturers. Neither Rudd nor Garrett replied; there was also no departmental acknowledgment that the letter had been received or considered (Beeby 2010b). Although ICANZ

predicted that any reliance on imports would be minimal (ICANZ 2010b), AFIA also warned the Government (in February 2009) that ‘cheap imports’ would not meet Australian Standards or be ‘compliant to the Building Code of Australia’ (AFIA 2009, 2).

In time, the Polyester Insulation Manufacturers Association of Australia (PIMAA), although focusing not only on imports, claimed that 30–40 per cent of homes used non-compliant products (Zuzul 2010, 10)—a claim that ICANZ strongly disputed (Thompson 2010, 58). Although ICANZ estimated that only about 8 per cent of HIP materials were Chinese, about 40 per cent of the Chinese materials (about 3 per cent of the HIP total) failed thermal claims (ICANZ 2010b; Thompson 2010, 58). PIMAA also felt compelled to warn Garrett about excessive levels in imports of formaldehyde—a substance (although not specifically banned) that has been linked to respiratory problems and cancer (Hudson 2010b). At the senate inquiry, DEWHA noted that any complaint by householders about non-compliant materials was a matter for State/Territory fair trading authorities (DEWHA 2009b, 30).

## The Art of Judgment

The Rudd Government’s determination to implement the HIP speedily, and downplay many warnings from those involved during the consultation stage, also raises the question about its capacity for sound judgment.

The need for careful judgment is recognised by both the *APH* and Colebatch. The *APH* notes that ‘it is difficult to test behavioural assumptions before a policy is implemented’ (Althaus et al. 2007, 7). It states the need for careful judgment given that ‘policies must make assumptions about behaviour’, with ‘incentives that encourage one behaviour over another, or disincentives to encourage particular actions’, and ‘must incorporate guesses about take-up and commitment, and mechanisms to deal with shirking and encourage compliance’ (Althaus et al. 2007, 7). Colebatch observes that ‘policy does not exist in a vacuum, but in relation to some identified field of practice, and this implies knowledge, both of the problem area and of the things that might be done about it’ (Colebatch 2002, 10).

To some degree, the Auditor-General mitigates DEWHA’s culpability by suggesting that the HIP proved ‘more complex than anticipated’, with risk-treatment options proving inadequate over time ‘to manage the emerging risks’ (Auditor-General 2010, 76). The report suggests that

there may have been a perception by householders that installers who were listed on the register had gone through a more stringent registration

process than agreeing to the terms of conditions of registration and an Australian Business Number validation check, which was all that was required until 1 September 2009 [a period that involved 70 per cent of registrations].

It was only from 1 September 2009 that all new installers were required 'to provide copies of OH&S certificates for all installers associated with their business, verification of public liability and property damage insurance, verification of workers' compensation insurance (where applicable) and evidence of competency for those installers in a supervisory role' (Auditor-General 2010, 105).

The HIP debacle reinforces a reality that should always be present in policy making. This is the need to take account of human nature, to understand that all action occurs in an imperfect world. This is not a new insight. The *Federalist Papers*, for example, warn that 'if men were angels, no government would be necessary'. And, further, 'if angels were to govern men, neither external controls or government would be necessary' (Madison et al. 1987, 319–20).

Realistic appraisal of the HIP based on what could go wrong would have told ministers and administrators that the program would be open to abuse. The scale of the funding warranted an active obligation to minimise risk; it should certainly not have been assumed that all installer companies would do the right thing.

The Government's haste to implement the HIP (and promote extensive take-up) overrode other sensible approaches that placed a greater burden on the purchaser and helped to minimise rorting. Until 30 June 2009, two independent quotes along with a site inspection (with exemptions for remote areas) were required. It was naive to remove this requirement on 1 July 'to allow the market and householders to interact without the involvement of the department' (DEWHA 2009b, 8, 15; HIP 2009, 5). Nor was it sensible to place the burden on the consumer to choose a suitable installer and insulation type, enter into a contract with the installer and express satisfaction with the work by signing a work order form to enable the installer to be paid through the online payment system (Environment, Communications and the Arts References Committee 2010, 10).

The likelihood that the HIP would be rorted should have been evident from the start, long before the Hawke report (in April 2010) recognised that 'the lack of an upfront payment and no requirement for quotes (between June and November 2009) meant there was little incentive for householders to take the normal level of responsibility for the quality and performance of the installers' (Hawke 2010, 29). As two submissions to the senate committee noted, paying

the first 25 per cent of the cost of insulation would have encouraged rational decision-making behaviour by consumers and some 'buy-in' from them in the outcome (Autex 2010, 6; PIMAA 2009, 6). One Sydney builder, who had been fitting home insulation for five years before the scheme began, commented that, once the Government announced the money, the insulation market was like a spaghetti western movie:

[T]here were so many cowboys out there. People who had no experience were being hired to do the work and everybody was billing for the total amount of the grant rather than what the job actually cost. It was a giant rort and nobody in authority seemed to care. (Reilly 2010)

Similarly, John Muldoon, owner of The Solar Guys in Brisbane, who has been working in the solar power industry for more than a quarter of a century, said such rebate schemes attracted 'shoddy operators and shoddy work' because 'whenever you give a significant rebate you attract the wrong people into the industry', whether it be 'rainwater tanks, insulation, solar...there is a common theme, people come into the industry because they think there is a quick buck to be made' (Chalmers and Elsworth 2010).

While the Government may have underestimated the possible increase in insulation installer companies (from about 200 companies to 6313 by 6 December 2009: DEWHA 2009b, 21–3), it should have done much more to minimise the likelihood of dodgy businesses being established to take advantage of the program. After all, the Government's requirements for installers to be registered with DEWHA from July 2009 allowed qualification by three options: 1) demonstrating minimum trade-related competencies including being a licensed builder, electrician, carpenter, bricklayer, plasterer, painter or plumber, or equivalent where no licensing requirements exist; 2) demonstrating insulation-specific competency by either a statement of attainment from a registered training organisation or a training package relating to insulation installation; or 3) two years of work experience installing insulation (Installer Advice no. 9). It was only mandatory for the supervisor to have insulation-specific competencies (Auditor-General 2010, 107; DEWHA 2009a).

One company, Sky green, noted that a supervisor could have a large crew of untrained people performing the installations and simply arrive at each installation to sign off on the form (Sky green 2009, 10). Not only did new installation businesses emerge from businesses such as pest controllers, gyprockers and pool and spa companies (Berkovic 2009), even convicted criminals were able to benefit from the HIP because of minimal checks on those receiving public money. Paul Raymond Stanshall (of Stanshall and Sons Proprietary Limited) accessed taxpayer funds for 10 months despite previously serving seven years in prison from 2000 for eight violent crimes, including

conspiracy to murder and false imprisonment (Berkovic 2010b). An arsonist convicted in 2002 who had previously torched a kebab shop for insurance money was director of a company that installed government-subsidised roof insulation until being deregistered in February 2010 after causing a house fire through insulation placed over the downlights in a roof (Wilson 2010).

With few checks on the rebate scheme, and the rebate only reduced from \$1600 to \$1200 from 2 November 2009 (Garrett 2009a),<sup>2</sup> the number of HIP installations exploded after July 2009 once costs for consumers were basically eliminated with no upfront payment, particularly in months when the rebate amount was reduced or the program suspended (November 2009 and February 2010). The HIP installation figures for 2009 were: March, 3321; April, 7917; May, 18 175; June, 23 642; July, 78 375; August, 108 169; September, 136 838; October, 165 104; November, 209 267; and December, 136 402. For 2010: January, 139 850; and February, 186 095 (Environment, Communications and the Arts References Committee 2010, 19).

Despite the *APH's* recommendations, the Government implemented few measures to encourage consumers to adopt their own checks to enhance quality and value for money by paying some of the fee, fostering a climate significantly amenable to fraud and/or poor quality, along with much waste of the public purse. While DEWHA noted that only 0.65 per cent of participants complained about their experience (Thompson 2010, 24), the Australia Institute found that, among householders approached by insulation businesses in the previous 12 months, 16 per cent were told that insulation needed to be replaced regularly (misinformation that suggests attempts to defraud the Commonwealth) (Australia Institute 2010, 2–3).

It took months of negative media publicity before the Government acted, notwithstanding compelling evidence about the abuse of the HIP. During March 2009, Justin Beck, manager of installation company Patnicar, reported that new insulation companies were cutting corners, quoting for jobs using Google Earth and not specifying materials (Berkovic 2009). In June 2009, the Australian Competition and Consumer Commission (ACCC) announced that it was already investigating reports that the necessary second quote could be obtained by telephone or from a subcontractor, without a home visit, and that one insulation company had 'partnered' another company to provide the necessary quotes (Maley 2009).

---

2 Installers could, however, continue to claim up to \$1600 until 30 November 2009 if four criteria were met: the quote for installation had been accepted by the householder prior to 2 November 2009; installation was completed between 2 November and 16 November 2009; the online component of the claim was lodged by the installer prior to the manual component; and online and manual components of the claim were lodged prior to 30 November 2009 (Auditor-General 2010, 121–2).

Yet, it was only from December 2009 that new mandatory risk assessment was required for each job before work started, which included filling in a form to prompt the installer to look for the listed hazards, and giving advice about how to respond to them (Garrett 2009c). New guidelines also required two independent quotes and a site inspection (with exemptions for remote areas) (DEWHA 2009b, 8, 15), while installers attempting to access grant/s were now subject to 'stringent' Australian Business Number and background checks (Vasek 2009).

Commonsense should have also prevailed regarding the possibility that new installer businesses, without adequate safety training, would provide a much greater risk to the public and help undermine long-established successful businesses. The Auditor-General acknowledged that 'learning on the job and allowing qualified and experienced individuals to supervise the work of inexperienced trainees is an acceptable practice within the general construction industry', but pointed out that 'installing insulation, which requires working in a roof space (particularly near electrical wiring), is hazardous and presented a high level of risk for inexperienced and untrained workers' (Auditor-General 2010, 107).

As the MEA noted in its submission to the senate committee, its more than 70 years' experience representing the electrical contracting industry showed clearly that unskilled labour combined with electrical cabling was a recipe for tragedy (MEA 2009, 3). Several organisations noted that foil had been used safely for 50 years, and that recent fatalities were caused by the influx of inexperienced workers (AMI 2010, 2; Renouf 2010, 78). Silverline Insulation founder Peter Venn, who employs 25 people in Queensland and had been installing foil insulation for 23 years without accident, noted that the Government had 'rushed ahead and allowed every unqualified person to come into the industry, that's what happens' (Berkovic 2010a). AFIA's Vice-President, Michel Bostrom, also argued that 'in 54 years since the first roll of foil was sold in Australia...there has not been, to my knowledge, a single case of electrocution installing foil until now' (Maiden 2010). With foil better suited to Queensland's climate than fibreglass, some 100 000 Queensland homes had been fitted with foil during the past 30 years without any electrical safety issues (Berkovic 2010d).

Others noted how installers in the past had always relied on staff learning how to work safely on the job (AMI 2010, 2); that most in the insulation industry would not have allowed installers to go out after only a two-day course (Arblaster 2010, 21); that brief formal training (six hours to two days) could not adequately replace supervised experience or surpass a stipulation that at least one person in a roof should be either a tradesperson or someone with at least six months' experience in the industry (Bostrom 2010); that training up to October 2009 was scant to non-existent for most installers, with many new entrants having little

experience (MEA 2009, 3); and that exemptions from competency requirements defied logic on the basis that a 'free pass' was presented to a number of trades given their limited direct dealings with insulation (AFIA 2009, 6).

## Evaluation and Lessons Learned

Following the *APH*, there is a need to evaluate a policy or program to draw lessons. While it was hoped that the HIP would insulate a further 2.7 million homes (Auditor-General 2010, 65), just 1.1 million roofs were insulated (at a cost of \$1.45 billion) before the HIP was axed (Auditor-General 2010, 26). It has already been noted that about \$1 billion—approximately 40 per cent of the \$2.45 billion cancelled scheme—will be needed to cover the costs of the HIP (although any surplus amount will be returned to the budget), including safety and quality inspections of about 200 000 homes fitted with ceiling batts or foil. This included \$424 million for the Foil Insulation Safety Program and Home Insulation Safety Program, and \$56 million for various industry assistance packages (Auditor-General 2010, 26).

Substantial rectification of completed work was needed. As of March 2010, of 13 808 roof inspections conducted, about 29 per cent had identified installations 'with some level of deficiency, ranging from minor quality issues to serious safety concerns' (Auditor-General 2010, 26). By 25 July 2010, 489 homes had foil insulation removed (Auditor-General 2010, 99).

There were a significant number of complaints. While total complaints (11 874) represented less than 1 per cent of total installations, there were 2883 instances of no insulation being installed, 1348 concerns about fire or safety risks and 193 complaints of work order forms being signed but no installation done. There were also 1051 complaints about incomplete work, 1317 about questionable installer practices, 375 about property damage, 222 about overcharging, 292 about installing without consent and 150 about using non-compliant material (Auditor-General 2010, 90–1).

There was some benefit in terms of employment, although the actual number of jobs created from the HIP was 'not monitored or reported against in any disciplined way' (Auditor-General 2010, 37). While DEWHA estimates that an additional 6000–10 000 new jobs were created by the end of 2009 (Auditor-General 2010, 37), Fletcher, which produces about 40 per cent of Australia's insulation, estimated during July 2010 that 8000 jobs will be lost from the industry (Rolfe 2010). It is highly probable that a more gradual expansion of the HIP could have sustained a steady increase of employment over a longer time frame, albeit initial job creation would have been lower.

More gradual take-up of the HIP would also have helped domestic insulation batts production keep up with demand, resulting in less dependence upon imports. While it is difficult to know precisely how much material was imported as statistics do not separate glass-wool batts from total fibreglass products (DEWHA 2009b, 21), ICANZ estimated that about 40 per cent of HIP installations used products imported from China, the United States, the United Kingdom, Malaysia and Thailand (ICANZ 2010b).

The HIP disaster also led to costly business decisions. One company, projecting increased demand for fire-retardant downlight barriers, increased production from 500 units a day to 5000 a day, taking on more staff and installing more equipment. When the HIP was axed, the owner was left with \$65 000 worth of unsold stock and forced to lay off staff (Lower 2010).

It is difficult to calculate energy efficiency and greenhouse benefits obtained by the HIP. It had been estimated 'that, on average, for each home that received new ceiling insulation, 1.65 tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e) will be saved each year', equating to an estimated 1.9 million tonnes of CO<sub>2</sub>-e per annum nationally based on 1.16 million installations (0.4 per cent of Australia's annual national greenhouse gas emissions in 2007) (Auditor-General 2010, 37, 100). According to the Auditor-General, this assumption cannot be determined with any accuracy given 'problems with installation quality, the removal of insulation where safety risks were a problem, and potentially fraudulently claimed installations (Auditor-General 2010, 37, 100).

The jury is still out on the final extent of suffering and waste. Of fires, the senate committee's final report concluded that 'it is impossible to say whether the rate of defective-installation-causing-fire is higher or lower in HIP jobs than in earlier jobs' (Environment, Communications and the Arts References Committee 2010, 56). The committee cited other information that suggested it would require knowledge of the average 'incubation period' of an insulation-related fire (Combet 2010a, 2151; Environment, Communications and the Arts References Committee 2010, 56; ICANZ 2010a, 6). One source, comparing Australian Bureau of Statistics (ABS) data for 2008 with fires under the HIP to February 2010, noted that there had been 80–85 fires per year before the HIP in regard to an average 67 500 installations per year, compared with 93 fires under the HIP by February 2010 from about 1.1 million installations (Possum Comitatus 2010). Other data are less supportive. By 17 March 2010, the eighteenth insulation-related fire of that year in the Melbourne metropolitan area had occurred. There had been seven such fires from January to June 2009 and 31 from July to December 2009 (Webb 2010).

In terms of deaths, more adequate training may have prevented the four deaths (although the construction industry had an average of 35 fatalities a year in

Australia despite high OH&S standards and severe penalties for non-compliance) (CPSISC 2009, 2). When more adequate training was made compulsory for all installers from 12 February 2010, with 7300 insulation firms having to re-register under new rules (Bita 2010), little more than one-third of businesses met the training standards (Berkovic 2010e).

The four deaths resulting from the HIP have led to legal action. One Queensland company, Arrow Property Maintenance Proprietary Limited, pleaded guilty to safety breaches following the electrocution of Reuben Barnes, sixteen years old, while installing fibreglass insulation in central Queensland, on 18 November 2009. Though the Rockhampton Industrial Magistrate's Court heard that there were no 'specific or documented procedures in place for installation of insulation', the company had allowed work to proceed without the house's electricity being turned off, had not provided workers with first-aid training in the event of electric shock and had not offered proper induction training (AAP 2010).

There was also abuse of workers in regard to wages. While the Auditor-General noted just 13 complaints from staff about not being paid (Auditor-General 2010, 91), an audit by the Fair Work Ombudsman of more than 200 companies (mostly in Queensland), following complaints from unions and workers since April 2010, found that 58 businesses had underpaid their workers. Hence, 79 workers were repaid nearly \$50 000 (Barry 2010).

In terms of fraud, by April 2010 there were 961 cases where more than one insulator had submitted a claim for payment for insulating the same premises, all of which were referred for further investigation (Medicare Australia 2010).

So what can be learned from the HIP experience? Certainly the Rudd Government should have taken advice from DEWHA officials who urged a much slower roll-out of the HIP over five years or more, in line with industry warnings (Auditor-General 2010, 69; Berkovic 2010d). The Government should have learned more from the Victorian Government Insulation Rebate program (13 August 2007 to 31 March 2009), which budgeted \$1.2 million for 3000 rebates, provided a rebate of 30 per cent (up to \$300) for non-concession card-holders and 50 per cent (up to \$500 for concession card-holders). Further, in contrast with the HIP, in Victoria, all installers were required to sign a contract specifying their obligations and complete a six-hour training session conducted by a technical college; participating companies had prior experience in insulation installation; and 5–10 per cent of each installer's work was audited for safety and quality by an experienced building inspection company (Auditor-General 2010, 53).

Both the Warm Front (United Kingdom) and Warm Up (New Zealand) schemes, started in 2000 and 2009 respectively, also had

extensive checks on installers prior to registration, including safety practices, reliability, quality of work, experience, price, service and financial position; outsourced delivery models that used companies with experience in the insulation or energy efficiency industries; five to 10 per cent of insulation installations audited for quality; and longer delivery timeframes and were of a smaller scale. (Auditor-General 2010, 53)

The Auditor-General's report contains a number of recommendations. First, DEWHA, supported by Medicare, could have collected information from installers as part of a better process for claims, compliance and audit to develop risk profiles of installers to 'better detect and address instances of serious non-compliance and potential fraud' (Auditor-General 2010, 35). Second—and although just 0.7 per cent of deregistrations were due to installer non-compliance with program terms and conditions (Auditor-General 2010, 35), and while any deregistration process should incorporate 'principles of natural justice'—the deregistration process was far too long (Auditor-General 2010, 132). With the first payment withheld in late August 2009 and the first installer deregistered for non-compliance on 6 October 2009, such penalties did not occur until months after the HIP began (Auditor-General 2010, 135). One installer, referred to the compliance committee on 7 October 2009, was not deregistered until 21 December 2009; another, first discussed by the compliance committee in regard to fraud on 12 November 2009, was not deregistered until 15 January 2010. Six installers were discovered to have duplicate registrations, enabling them to operate after being deregistered for non-compliance (Auditor-General 2010, 148).

Other recommendations urged a more appropriate time frame in terms of diminishing risk and ensuring best outcomes; quicker advice and options given to ministers about possible policy constraints during implementation; responsible departments having 'in-depth knowledge of the industry or business environment'; more thorough consultation with key players about relevant issues; a greater understanding of what effect a policy will have on the behaviour of industry and consumers; measures to encourage 'the right incentive structures for participants' (such as withholding a proportion of payments or requiring co-payment from those benefiting); governance arrangements that clearly define roles and responsibilities to encourage 'appropriate mobilisation of resources and addressing emerging problems in a timely and effective manner'; and appropriate levels of skilled staff and resources to support policy implementation (Auditor-General 2010, 173–6).

## Conclusion

The HIP is a significant case study demonstrating what can happen when best-practice public policy recommendations are given scant attention. Had more attention been paid to known standards of public policy, the Rudd Government's HIP would have benefited. As it was, the HIP confirms the worst fears held by both the *APH* and Colebatch. The Government did not give adequate attention to serious safety and quality concerns. The *APH*, in this respect, warns that 'consulting may just be cherry-picking acceptable responses' (Althaus et al. 2007, 105), and Colebatch observes that the consultation stage is often swamped by the reality that participation can remain 'a powerful rhetorical theme in policy practice' (Colebatch 2006, 5–6). The *APH* notes the need for 'creative thinking and high level skills are needed to resolve the tensions in practice' (Althaus et al. 2007, 105); this expectation was misplaced where the HIP was concerned.

In the end, while the Rudd Government implemented the HIP in order to offset predicted lower private-sector economic activity caused by the GFC, the failure of the program was derived from its determination to implement the HIP speedily; the lack of consultation with industry players over safety, quality and costs; and poor judgment about likely industry and consumer behaviour.

## Acknowledgement

This is a revised version of 'The Home Insulation Policy Debacle: Haste Makes Waste' (*Public Policy* 6[2]: 83–100). I thank John Nethercote for his encouragement, advice and reading of numerous drafts in regard to this chapter.

## Bibliography

- Aluminium Foil Insulation Association (AFIA). 2009. Submission 23, Attachment, Letter to Prime Minister, 9 February 2009. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Amalgamated Metal Industries (AMI). 2010. Submission 25, 19 January 2010. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Althaus, C., P. Bridgman and G. Davis. 2007. *The Australian Policy Handbook*. Sydney: Allen & Unwin.

- Arblaster, A. 2010. Australian Cellulose Insulation Manufacturers Association. Committee Hansard, 17 February 2010. Canberra: Parliament of Australia.
- Australia Institute. 2010. Submission 46. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Auditor-General. 2010. *Home Insulation Program*. Audit Report no. 12 2010–11. Canberra: Australian National Audit Office.
- Australian Associated Press (AAP). 2010. 'Insulation Company Pleads Guilty'. *Brisbane Times*, 14 September, <<http://news.brisbanetimes.com.au/breaking-news-national/insulation-company-pleads-guilty-20100914-159uh.html>>
- Australian Government. 2009. *Nation Building Economic Stimulus Plan*. Commonwealth Coordinator-General's Progress Report, 3 February 2009 – 30 June 2009. Canberra: Australian Government.
- Autex. 2010. Submission 10. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Balogh, S., J. Pierce and P. Hintz. 2010. 'Double the Homes Endangered by Foil: Government Will Pay to Check Every Installation'. *The Courier-Mail*, 11 February, p. 10.
- Barry, S. 2010. 'Insulation Companies Underpaid Workers'. *ABC*, 27 November, <<http://au.news.yahoo.com/local/qld/a/-/local/8400947/insulation-companies-underpaid-workers/>>
- Beeby, R. 2010a. 'On the Fast Track to Tragedy'. *The Canberra Times*, 13 February, p. 6.
- Beeby, R. 2010b. 'Garrett Insulates Himself with Personnel Amid Calls to End Scheme'. *The Canberra Times*, 18 February, p. 1.
- Beeby, R. 2010c. 'Union Warned Govt on Inadequate Safety Plan'. *The Canberra Times*, 27 February, p. 6.
- Berkovic, N. 2009. 'Warning on Rip-Offs by Dodgy Pink Batt Installers'. *The Australian*, 16 March, p. 2.
- Berkovic, N. 2010a. 'Garrett Removes Foil from Roof Scheme'. *The Australian*, 10 February, p. 4.
- Berkovic, N. 2010b. 'Criminal Escaped Rebate Radar'. *The Australian*, 18 February, p. 1.

- Berkovic, N. 2010c. 'Rudd Insulated from Warnings'. *The Australian*, 19 February, p. 1.
- Berkovic, N. 2010d. 'ALP Urged to Strip Foil Insulation from Homes'. *The Australian*, 3 March, p. 4.
- Berkovic, N. 2010e. '7000 Batts Firms Not Checked'. *The Australian*, 13 March, p. 4.
- Berkovic, N. 2010f. 'Full Cost of the Bungles Revealed'. *The Australian*, 12 May, p. 4.
- Berkovic, N. with A. O'Brien. 2010. 'Garrett Admits to Insulation Warnings'. *The Australian*, 12 February, p. 1.
- Bitá, N. 2010. 'Lives Lost in Haste to be Seen as Green'. *The Australian*, 20 February, p. 4.
- Bostrom, M. 2010. Amalgamated Metal Industries, Committee Hansard, 17 February 2010. Canberra: Parliament of Australia.
- Carlisle, W. 2010. 'A Lethal Miscalculation'. *Four Corners*, ABC TV, 26 April, <<http://www.abc.net.au/4corners/content/2010/s2882985.htm>>
- Chalmers, E. and S. Elsworth. 2010. 'Garrett Feels the Heat—Industry Insider Says Rebates Attract Dodgy Tradies'. *The Courier-Mail*, 19 February, p. 10.
- Colebatch, H. K. 2002. *Policy*. Second edition. Maidenhead, UK: Open University Press.
- Colebatch, H. K. 2006. 'Mapping the Work of Policy'. In *Beyond the Policy Cycle: The Policy Process in Australia*, ed. H. K. Colebatch, pp. 1–19. Sydney: Allen & Unwin.
- Combet, G. 2010a. House of Representatives Hansard, 10 March 2010. Canberra: Parliament of Australia.
- Combet, G. 2010b. Insulation Component of the Renewable Energy Bonus Scheme Will Not Proceed. Media release, 22 April 2010, Parliament House, Canberra.
- Construction and Property Services Industry Skills Council (CPSISC). 2009. *Submission 5, Construction Industry Pocket Book—Resource for Installers of Ceiling Insulation*, 10 December 2009.
- D'Arcy, D. 2010. Committee Hansard, 17 February 2010. Canberra: Parliament of Australia.

- Deloitte Insight Economics. 2007. *An Economic Assessment of the Benefits of Retrofitting Some of the Remaining Stock of Uninsulated Homes in Australia, Summary of ICANZ's \$500 Subsidy Proposal*, June 2007. Australia: Deloitte Insight Economics.
- Department of Climate Change and Energy Efficiency (DCCEE). 2009a. *Installer Advice no. 9*, 29 September 2009. Canberra: Australian Government. <<http://www.climatechange.gov.au/en/government/programs-and-rebates/hisp/installer-advice/previous-installer-advice.aspx>>
- Department of Climate Change and Energy Efficiency (DCCEE). 2009b. *Installer Advice no. 12*, 26 October 2009. Canberra: Australian Government. <<http://www.climatechange.gov.au/en/government/programs-and-rebates/hisp/installer-advice/previous-installer-advice.aspx>>
- Department of Climate Change and Energy Efficiency (DCCEE). 2010. Fire Incidents Linked to the Home Insulation Program. Media release, Parliament House, Canberra. <<http://www.climatechange.gov.au/en/government/programs-and-rebates/hisp/fraud-and-compliance/incidents.aspx>>
- Department of Environment, Water, Heritage and the Arts (DEWHA). 2009a. *Energy Efficient Homes Package—Competency Requirements for Registration on the Installer Provider Register*. September 2009. Canberra: Commonwealth of Australia.
- Department of Environment, Water, Heritage and the Arts (DEWHA). 2009b. Submission 19, 23 December 2009. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Environment, Communications and the Arts References Committee. 2010. *Energy Efficient Homes Package (Ceiling Insulation) Report*, July. Environment, Communications and the Arts References Committee. Canberra: Parliament of Australia.
- Farr, M. 2010. 'Garrett Didn't Act on Warning'. *Daily Telegraph*, 30 April, p. 26.
- Garrett, P. 2009a. Insulation Changes: Safety, Consumer Protections and Value for Money. Media release, 1 November 2009, Parliament House, Canberra.
- Garrett, P. 2009b. Insulation Safety Standards to Get a Further Boost. Media release, 30 November 2009, Parliament House, Canberra.
- Garrett, P. 2009c. Update on Insulation Training Requirements. Media release, 17 December 2009, Parliament House, Canberra.
- Garrett, P. 2010a. Foil Insulation Suspended from Home Insulation Program. Media release, 9 February 2010, Parliament House, Canberra.

- Garrett, P. 2010b. Significant Changes to Commonwealth Environmental Programs. Media release, 19 February 2010, Parliament House, Canberra.
- Hawke, A. 2010. Review of the Administration of the Home Insulation Program, 6 April 2010. Canberra: Department of the Prime Minister and Cabinet.
- Home Insulation Program (HIP). 2009. *HIP Program Guidelines. Version 5*, 1 December 2009. Canberra: Australian Government.
- Hudson, P. 2010a. 'Deadly Alarm Raised Often'. *Herald-Sun*, 12 February, p. 6.
- Hudson, P. 2010b. 'New Garrett Shame: Insulation Boss Reveals: I Told Minister of Poison Batts Threat'. *Herald-Sun*, 13 February, p. 3.
- Insulation Council of Australia and New Zealand (ICANZ). 2010a. Submission 18. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Insulation Council of Australia and New Zealand (ICANZ). 2010b. Answers to Questions On Notice no. 8 from Senate Hearing 17 February 2010 (received 16 March 2010): Minutes of an Industry Consultation Meeting, 18 February 2009. Canberra: Parliament of Australia. <[http://www.aph.gov.au/senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/senate/committee/eca_ctte/eehp/submissions.htm)>
- Karvelas, P. and M. Franklin. 2010. 'Gillard, Abbott Face Brisbane Grilling'. *The Australian*, 18 August, <<http://www.theaustralian.com.au/national-affairs/gillard-abbott-face-brisbane-grilling/story-fn59niix-1225907009879>>
- Lower, G. 2010. 'Insulation Confusion a Barrier to Safety'. *The Australian*, 13 July, p. 4.
- Madison, J., A. Hamilton and J. Jay. 1987 [1788]. *The Federalist Papers*. Isaac Kramnick (ed.). Harmondsworth, UK: Penguin.
- Maiden, S. 2010. 'Garrett Misses Roof Meeting to go Bush'. *The Australian*, 15 February, p. 1.
- Maley, P. 2009. 'Insulation Subsidy Scheme Rorted'. *The Australian*, 20 June, p. 6.
- Master Electricians Australia (MEA). 2009. Submission 20, Attachment, Media release, 18 May 2009. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>

- Medicare Australia. 2010. Answer to Question 9 On Notice from Hearing 26 February 2010, Received 9 April 2010. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Minter Ellison. 2009. *Risk Register and Management Plan*, 9 April 2009. Australia: Minter Ellison.
- Mrdak, M. 2010. Committee Hansard, 26 February 2010. Canberra: Parliament of Australia.
- National Electrical and Communications Association (NECA). 2009. Submission 39. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- New Zealand Ministry of Economic Development (NZMED). 2007. *Installing Under Floor Thermal Insulation—Electric Shock Hazard*, 21 June 2007. Wellington: Ministry of Economic Development.
- Polyester Insulation Manufacturers Association of Australia (PIMAA). 2009. Submission 11, 18 December 2009. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- Possum Comitatus. 2010. 'Did the Insulation Program Actually Reduce Fire Risk?'. *Crikey*, 24 February, <<http://blogs.crikey.com.au/pollytics/2010/02/24/did-the-insulation-program-actually-reduce-fire-risk/comment-page-1/>>
- Prasser, S. 2006. 'Aligning Good Policy with Good Politics'. In *Beyond the Policy Cycle: The Policy Process in Australia*, ed. H. K. Colebatch, pp. 266–92. Sydney: Allen & Unwin.
- Probyn, A. and A. Tillett. 2010. 'Garrett Got Insulation Warning'. *West Australian*, 11 February, p. 5.
- Rehn, A. 2010. 'Batt Man Returns but Only to His Cave'. *Daily Telegraph*, 17 February, p. 4.
- Reilly, T. 2010. 'Roof Inspections Just the Latest Delay in Green Home Program'. *Sydney Morning Herald*, 12 February, p. 10.
- Renouf, T. 2010. Committee Hansard, 17 February 2010. Canberra: Parliament of Australia.
- Rolfe, J. 2010. 'One Big Broke Batt Mountain of Tears'. *Daily Telegraph*, 20 July, p. 9.

- Rudd, K. 2009a. Prime Minister: Energy Efficient Homes—Ceiling Insulation in 2.7 Million Homes. Media release, 3 February 2009, Parliament House, Canberra.
- Rudd, K. 2009b. \$42 Billion Nation Building and Jobs Plan. Media release, 3 February 2009, Parliament House, Canberra.
- Senate Economics References Committee (SERC). 2009. *Government's Economic Stimulus Initiatives*, 9 October 2009. Canberra: Commonwealth of Australia.
- Sky green. 2009. Submission 12. Canberra: Parliament of Australia. <[http://www.aph.gov.au/Senate/committee/eca\\_ctte/eehp/submissions.htm](http://www.aph.gov.au/Senate/committee/eca_ctte/eehp/submissions.htm)>
- The Canberra Times*. 2010a. 'Repair Job: \$50m Heat on Garrett'. [Editorial], 11 February, p. 5.
- The Canberra Times*. 2010b. 'Inquiry into House Fires after Insulation Doubts'. [Editorial], 12 February, p. 4.
- The Canberra Times*. 2010c. 'Battflip: Pressure Builds but Garrett Stands Firm amid Opposition Calls to Stand Down'. [Editorial], 20 February, p. 10.
- Thompson, M. 2010. Committee Hansard, 22 February 2010. Canberra: Parliament of Australia.
- Tiffen, R. 2010. 'A Mess? A Shambles? A Disaster?'. *Inside Story*, 26 March, <<http://inside.org.au/a-mess-a-shambles-a-disaster/>>
- Tillett, A., A. Probyn and R. Taylor. 2010. 'Besieged Garrett Deflects Blame'. *West Australian*, 12 February.
- Vasek, L. 2009. 'Deregistered Insulation Firms to Escape Scrutiny on Name-and-Shame List'. *The Australian*, 1 December, p. 4.
- Webb, C. 2010. 'Time Bomb Warning Over Botched Insulation'. *The Age*, 17 March, p. 3.
- Wilson, L. 2010. 'Arsonist Worked Despite Fire'. *The Australian*, 20 February, p. 4.
- Zuzul, T. 2010. Committee Hansard, 17 February 2010. Canberra: Parliament of Australia.