It was around 5pm on a Friday in late January when Mary Wiley-Smith took the call. Chris Johnson, Director of the Climate Change Team in the Department of the Prime Minister and Cabinet (PM&C), was on the line with a very urgent task. Wiley-Smith and her Department of Environment, Water, Heritage and the Arts (DEWHA) colleague, Beth Brunoro1, were to devise and cost a proposal to install ceiling insulation in homes across Australia. They had two days over the 2009 Australia Day weekend to work out the details and present their plan to PM&C on Monday. The Prime Minister, Kevin Rudd, was preparing to announce the new program in early February. Johnson, however, outlined several key conditions and parameters:

- the official program would run over two years from 1 July;
- there should be no out-of-pocket cost to the household;
- they needed to cost two options: (1) where all uninsulated houses in Australia were eligible, and (2) where only certain low-income households were eligible;
- they would need to include a risk assessment of potential designs and delivery models for implementation of the program; and
- they were not to consult industry representatives about the scheme.2

Elsewhere in DEWHA, Brunoro received a similar call. An experienced public servant, Wiley-Smith was Acting Assistant Secretary of the Community and Industry Partnerships Branch of the Renewables and Energy Efficiency Division (REED). Brunoro meanwhile was Director of the Community Partnerships Team (Exhibit A). The Department in general, and Brunoro in particular, had already been looking at a

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1 Nee Riordan.
variety of proposals to boost the energy efficiency of Australian homes but Wiley-Smith knew it would still take considerable effort to pull everything together in time. A confluence of circumstances made it imperative to try.

DEWHA and the Global Financial Crisis

Prime Minister Kevin Rudd made combating climate change a key policy priority after the Labor Government’s election in late-2007, once declaring it the ‘great moral challenge of our generation’.3 DEWHA had been enlisted to develop a number of initiatives to make Australian dwellings more energy efficient. One of the more advanced proposals involved sending trained assessors to audit individual homes and identify opportunities for energy savings. Householders could then access funds to obtain the products best suited to their needs. During this process, insulation was identified as a major individual contributor to domestic thermal efficiency.

As 2008 progressed, the US credit crunch metastasized into the Global Financial Crisis (GFC), plunging the world into economic turmoil. Climatic concerns were sidelined while the Government scrambled to steady the local economy. Treasury Secretary Ken Henry advised Rudd and Treasurer Wayne Swan to ‘go hard, go early, go households’.4 The Strategic Priorities and Budget Committee (SPBC), comprising the Prime Minister, Deputy Prime Minister, Treasurer and Minister for Finance was set up to fast-track stimulus measures. State and federal government departments were canvassed for large-scale projects that could be rolled out rapidly and would provide substantial numbers of jobs, particularly for low-skilled workers. The Prime Minister was also especially keen on a major energy efficiency initiative. During late 2008 and early 2009, PM&C asked DEWHA to scout for single-measure projects that would generate economic and environmental benefits; by late January, PM&C had settled on home insulation. The industry was minimally regulated and presented few barriers to entry. The Prime Minister planned to announce an insulation package as part of a broader suite of initiatives at the beginning of February.

While teetering world economies threatened Australia, there were challenges much closer to home – not least, the Prime Minister. Many political colleagues and senior bureaucrats were already wary and weary of his imperious manner and controlling yet capricious approach, amongst them Environment Minister Peter Garrett: ‘His career is a series of passionate embraces of issues that he then walks away from…running government one way in a certain direction and then turning around and heading off in another direction a couple of days later’.5 The establishment of the SPBC had displaced regular cabinet business, leaving 13 other ministers on the periphery of major decisions. Rudd’s relatively junior personal advisors were also causing consternation in corner offices across Canberra as their influence grew and accentuated the steady drift towards greater centralisation.

Garrett, a prominent former musician and conservationist, had only been in parliament three years before ascending to the Cabinet.6 However, he was handed a split portfolio – responsibility for climate change and water management was assigned to Senator Penny Wong. Government insiders

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4 https://www.crikey.com.au/2010/12/21/henry-an-outstanding-public-servant-ill-used-by-both-sides/. Briefings from national and international bodies emphasized the need for swift, pre-emptive action on the GFC. As the situation deteriorated during December 2008 and January 2009, the government was prompted to develop a second stimulus package and bring forward as many projects as possible.
6 Garrett was, between 1975 and 2002, lead vocalist with Midnight Oil, an internationally successful Australian rock band, and, between 1989 and 1996, president of the Australian Conservation Foundation. He entered the federal parliament in 2004 as the Member for Kingsford Smith (NSW).
and observers wondered whether he had the political savvy and sangfroid to successfully navigate the transition from activist to minister.  

**Insulating Australia**

Though the majority of Australia’s 8.2 million homes had some form of insulation (almost always including ceiling and or roof), approximately 1.58 million were completely uninsulated, while the status of 1.59 million dwellings was unknown. According to government estimates, retrofitting an uninsulated home could deliver reductions of more than 2.5 tonnes of greenhouse gases annually, whilst cutting heating and cooling bills by up to 35%. Loss of, or insufficient, insulation was more likely to affect rental properties (landlords were disinclined to invest in features they didn’t directly benefit from) and low-income households.

At the beginning of 2009, the industry performed roughly 70,000 installations on existing homes each year, with numbers in overall decline. Most homes were insulated with bulk insulation made from a variety of materials, including cellulose, wool, polyester, fibreglass and polystyrene. Bulk products are available in batts, boards and blankets, or as loose-fill, depending on the material and installation requirements. They work by creating tiny air pockets which restrict heat flow. Less commonly used is reflective foil laminate insulation (RFL), also known as foil insulation. This usually consists of aluminium foil laminated onto paper or plastic and moulded into various forms. Foil insulation works primarily by reflecting heat and is sometimes combined with bulk materials. Each insulation product has different levels of thermal resistance (indicated by its R value) and might be selected according to the type of residence (e.g. new-build or existing), climatic conditions, costs, and/or the space to be insulated (e.g. walls, ceilings, floors). For instance, some installers preferred foil insulation for homes in hot and humid climates. However, foil isn’t as effective as other materials and has more complex installation requirements. Calculating the thermal performance of foil sheeting is also harder.

Retrofitting insulation is generally straightforward but requires care: roof cavities tend to be dark, poorly ventilated spaces that can reach high temperatures in warm weather; ceilings are not typically designed to support heavy weights; and roof voids are usually replete with electrical wiring that can be as old as the house itself. Switching off mains power during installation reduces the risk of electric shock but can make it difficult for installers to fit materials and disperse heat. The type, state and placement of electrical wires and fittings also influence what insulation to choose and how installation should proceed. For example, fixtures such as downlights need adequate clearance from insulating materials so they don’t overheat and become fire hazards.

The home insulation industry was very fragmented. Estimates suggested that in 2008 there were around 200-250 insulation companies in Australia. They ranged from very large corporations to small businesses. The number of workers was hard to gauge since most insulation companies also offered other services or had a variable workforce. Manufacturers made up a significant part of an industry which was characterized by a competitive ‘animosity’ between different producers, each critical of other insulation types. In early 2009, the following industry bodies represented some 33 manufacturers, usually according to product category. These were the main but by no means the only industry groups:

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9 Ibid.

• Insulation Council of Australia and New Zealand (ICANZ)
  ICANZ represented the interests of glass wool (fibre-glass and wool) and rock wool (wool and polyester) manufacturers. Prior to the HIP, ICANZ consisted of two members: CSR Bradford and Fletcher Insulation Australia and New Zealand, which were together responsible for around 60% of insulation manufacture in Australia.
• Australian Foil Insulation Manufacturers’ Association (AFIMA);
  Represented CSR Bradford’s and Fletcher Insulation’s foil production interests. Together they accounted for 70% of Australian foil insulation production.
• Insulation Manufacturers’ Association of Australia (IMAA);
  ICANZ and AFIMA were jointly represented by peak body IMAA.
• Australian Cellulose Insulation Manufacturers’ Association (ACIMA);
  ACIMA represented about 80% of cellulose insulation manufacturers, a much more disparate group of 14 members. Together, they accounted for approximately 10% of insulation production.
• Polyester Insulation Manufacturers’ Association Australia (PIMAA);
  PIMAA was the peak body of five polyester insulation manufacturers, accounting for 6-10% of the market.
• Australian Foil Insulation Association (AFIA).
  AFIA represented some 12 manufacturers and retailers of reflective foil insulation and approximately 5-6% of the industry.11

Regulatory frameworks
The insulation industry was not subject to extensive regulation, especially when it came to retrofitting private dwellings. No certification or training was required to install insulation; in fact, householders could do it themselves. What oversight existed was principally determined by the States and Territories and mainly concerned occupational health and safety. Each jurisdiction required all employers to provide a safe working environment for employees, including any appropriate training or equipment to minimise the risk of harm.12 State agencies were empowered to investigate and prosecute infringements. Most investigations were prompted by serious incidents or tip-offs. Individuals and/or companies shown to have breached their duty of care could be subject to criminal as well as civil proceedings. Building and construction workers were required to complete induction training on occupational health and safety prior to entering the industry. ‘White card’ certification was a prerequisite across all Australian jurisdictions but was very rudimentary and could be undertaken online in around one hour.

South Australia was the only state with specific licensing requirements pertaining to the insulation industry. Any person or business seeking to contract to install insulation in South Australia had to have a ‘building work contractor’ license which meant they had to be, or employ, a registered supervisor with relevant skills and experience. Licences were issued by the South Australian Office of Consumer and Business Affairs (OCBA) and applicants were assessed according to the type of work they proposed to do. Amongst the requirements, all applicants had to demonstrate:

11 Ibid.
12 The Commonwealth was working through COAG to harmonise workplace health and safety laws across Australia but the process was still some way from completion.
That they possessed supervisor/s registration for each type of activity- supervisor competencies can be demonstrated by qualifications or experience backed by references. Supervisors can also be asked to attend a technical interview to verify their qualifications and experience before OCBA will register them.13

At the federal level, there were few guidelines or regulations directly applicable to insulation installation. The Federal Safety Commissioner, an administrative office located within the Department of Education, Employment and Workplace Relations (DEEWR), worked to promote health and safety on Australian building and construction sites, in accordance with the Building Code of Australia (BCA). The Code,14 which contained technical provisions for the design and construction of new buildings, covered aspects of insulation installation. However, some issues specific to retrofitting, e.g. health and safety, weren’t addressed. Other relevant standards included the Wiring Rules,15 last updated in 2007, which set out how to perform electrical work in ceilings, including minimum clearances for insulation products. There were also other Australian standards16, principally Australian Standard 3999-1992 ‘Thermal Insulation of Dwelling—Bulk Insulation—Installation Requirements’. The Standard, now 17 years old, dealt solely with ‘bulk’ thermal insulation in dwellings, not foil.

These standards were not uniform legal requirements across Australia. The Wiring Rules, by contrast, had legislative backing in all states and territories. However, there was no obligation for homes to be brought up to present standards, nor checked for safety. Electrical work breaching the Wiring Rules frequently went undetected. The BCA had been given the status of building regulation by all States and Territories but each jurisdiction approached compliance somewhat differently.

The Plan

As requested, Wiley-Smith and Brunoro completed their proposal (Exhibit B) without alerting industry. They were also instructed by PM&C not to discuss it within DEWHA, except on a need-to-know basis.17 Even Garrett was not ‘specifically informed’ of their work.18 However, they could and did consult with the Department of Finance and Deregulation (DoFD). The initial plan was to offer a non-means tested payment capped at $1,200 per house; this was revised up to $1,600 at the request of PM&C. Householders would be instructed to contact a call centre to register their details which would be passed on to providers. They estimated that 2.25 million homes would be eligible and recommended a regional brokerage model (involving as many as 15 different regions) to maximise efficiency and minimize costs. Regional providers would be large companies selected by a tender process. Successful applicants would then subcontract to smaller local providers. It was a model the Department was familiar with, having used it before on a much smaller scale. The main implementation issues/challenges Wiley-Smith and Brunoro identified were:

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14 The Building Code of Australia (BCA) is determined by the Australian Building Codes Board, a joint initiative of all three levels of government in Australia. States and Territories are responsible for administering the BCA under their own Acts and Regulations.
15 Formerly known as Australian/New Zealand Standard 3000:2007 ‘Electrical installations’.
16 Standards Australia (SA) is a peak non-government body which develops specifications and procedures to ensure quality and performance across a wide range of goods and services. Some Australian Standards are embedded in law, others not. SA has no direct role in compliance or enforcement.
17 Earlier in January 2009, PM&C had contacted some insulation manufacturers to gauge the industry’s capacity to cope with increased demand. The Department was told that the local industry alone would not be able to fulfil those needs but that overseas plants could be utilised.
• Difficulty in providing coverage to rural and remote areas of Australia.
• The risk of price hikes. They calculated that the average cost to insulate an Australian home in early 2009 would be $1,200.
• The impact of sudden massive growth on a gradually declining industry.
• Potential shortages of insulation materials.
• Managing the risks of over-subscription and fraud.
• The political impact of job losses at program completion.

To mitigate some of these risks, they recommended a 5-year rollout to give industry an opportunity to scale up and wind down activity more gradually. The model offered other benefits, noted Wiley-Smith:

As we were recommending the contractual model, we were assuming that the installers would be all large established insulation companies and that training would be required by the employer before installers could start work. In the proposed model, safety would be a primary concern for the contracted parties. Contracts or funding agreements would specify the WH&S obligations under commonwealth and state laws (at that time) as well as outline how any breach would be managed. We recommended a ‘regional rollout’ model (to rollout the program step-by-step) where we could test the model and then improve the design of the program in consultation with industry before we rolled it out across Australia.19

The proposal was sent to PM&C and discussed at a meeting of the Strategic Priorities and Budget Committee (SPBC) over 27-28 January. However, DEWHA’s preference for a 5-year rollout was apparently not put forward; Wiley-Smith claimed that not even she had seen the paper presented by PM&C. On 3 February, Prime Minister Kevin Rudd briefed the Cabinet on the $42 billion Nation Building and Jobs Plan which encompassed a $4 billion Energy Efficient Homes Plan (EEHP). Later that day, he publicly announced the EEHP which incorporated a Solar Hot Water Rebate (SHWR)20 Program, Low Emissions Assistance Plan for Renters (LEAPR)21, and the Home Insulation Program (HIP)22. Officially commencing 1 July, the HIP would be allocated $2.7 billion over two and a half years to insulate the ceilings of up to 2.2 million homes. The Program would also create an estimated 9,800 jobs in insulation manufacturing and installation.23

From 1 July, all insulation companies would have to be formally registered with the HIP in order to participate. However, Rudd’s announcement made it clear that householders insulating their homes in the interim could seek reimbursement up to the $1,600 cap, effective immediately.24 Though news of the insulation program was welcomed warmly, DEWHA Deputy Secretary, Malcom Forbes, felt a distinct chill: ‘At the time the HIP was announced, I was seriously concerned about DEWHA’s ability to deliver the HIP in the set time. I have never experienced a time period between Cabinet decision and public announcement and its implementation timetable as short as in the case of the HIP. The HIP

19 Ibid, p74.
20 The Solar Hot Water Rebate (SHWR) Program increased the rebate available to householders who installed a solar hot water system from $1,000 to $1,600. This program would be allocated an additional $507 million over three and a half years.
21 The Low Emissions Assistance Plan for Renters (LEAPR) would double the existing rebate available to landlords who installed insulation in their private rental properties, from $500 to $1,000. An additional $612.5 million would be allocated to 30 June 2011, and an estimated 500,000 rental homes would be insulated under the program.
22 The Home Insulation Program was initially called the Homeowners Insulation Program.
24 Claimants would need to be able to provide evidence of two quotes.
implementation timetable was horrendous given the scope of what DEWHA faced’. He was far from alone in his concerns.

As primarily a policy department, DEWHA ran relatively few programs. Senior managers lacked construction and project management experience. The Department was overcommitted with existing projects, including the $12 billion Murray-Darling Basin Plan which was already a significant drain on resources. Although provisions had been made for additional staff, rapid recruitment would be a challenge. One glaring position vacant was that of Department Secretary. It was filled on 2 March by Robyn Kruk who had been a long-serving senior public servant in New South Wales. She recalled meeting with Ministers Garrett and Wong prior to taking up her post. Garrett described the HIP as a priority program with ‘demanding timelines’ requiring DEWHA to be ‘adaptive’. After Kruk’s arrival, Forbes (and other senior staffers) were quick to convey their concerns about the HIP. In addition to regional brokerage, the Department also favoured the states taking the lead role in implementation.

Elsewhere in Canberra, other recent appointments included Mike Mrdak as the Commonwealth Coordinator-General. He was chosen in early February to head the newly created Office of the Coordinator-General (OCG) located initially within the Department of the Prime Minister and Cabinet (PM&C). With an initial core staff of four, OCG was established to monitor the implementation of the Nation Building and Jobs Plan and to ensure cooperation with the states. Mrdak reported chiefly to Senator Mark Arbib, who was appointed as the Parliamentary Secretary to the Prime Minister for Government Service Delivery on 25 February. Arbib had no direct responsibility for the HIP but had a broad-ranging role in promoting and expediting the Program, as well as maximising the number of jobs available.

From the beginning, Mrdak harboured serious reservations about DEWHA’s readiness: ‘My assessment at the time was that in comparison with other departments with which I was dealing, DEWHA was less well placed in terms of being able to move to the implementation phase quickly...DEWHA did not have the program experience, IT capacity or the administrative systems needed to cope with the sort of loads that were expected to meet the Government’s set targets’. He later confessed to being ‘sleepless’ about HIP. To allay his concerns, one of his first actions was putting DEWHA in touch with Medicare and Centrelink to devise a payment system while the Department attempted to process an influx of incoming claims – often manually.

The HIP was assigned to what would become DEWHA’s Home Energy Branch (HEB). Located within the Renewables and Energy Efficiency Division (REED), HEB was headed by Assistant Secretary Kevin Keeffe. An anthropologist by training, he nonetheless had some program administration experience since REED had been involved in delivering a number of smaller-scale energy efficiency programs. REED would continue with its existing workload while taking on HIP; Keeffe would remain Assistant Secretary but also assume the role of HIP Project Manager. In early February 2009, Keeffe had 25 staff and reported directly to First Assistant Secretary of REED, Ross Carter who had recently returned from a month’s leave. After the HIP’s announcement, Beth Brunoro became Director of the Home Insulation Policy Team within HEB; meanwhile, Mary Wiley-Smith ceased formal involvement with the Program. Recruiting more staff became imperative and Kruk set about marshalling what resources she could. One new member, Will Kimber, was seconded to the HEB in early March. He recalled his first weeks:

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26 Ibid, p105.
27 The Office was modelled on Queensland’s OCG.
29 Ibid.
I found out about the program via the media release from the Treasurer, Wayne Swan, on 3 February 2009 and at that time, it was unknown to me that the department would be implementing this program and I was asked to join the program. So not having had any previous background in the implementation of such program or background in roof insulation, I was starting from scratch in terms of my knowledge and contacts in the industry and it was a stressful and difficult period because the government had announced that the program had already commenced and householders and various people from the community were even phoning the department switchboard and asking...how they could receive the rebate. But the Department didn’t have any opportunity to plan or go through...a new policy proposal process...Rather, it was announced and then we had to figure out how we would implement it and just meet the government’s objectives. So we were at the same time attempting to deliver the program and design it.  

In the meantime, news of the HIP reverberated throughout the industry and the jurisdictions. On 5 February, a special Council of Australian Governments (COAG) meeting took place. There, leaders signed a National Partnership Agreement to facilitate delivery of the Nation Building and Jobs Plan (NBIP) which included the Energy Efficient Homes Plan (EEHP). Amidst the tightly packed schedule, delegates received a paper outlining the EEHP which declared that: ‘No State contribution to this measure is required’. However, at the request of the Commonwealth, state governments committed to maintaining existing energy efficiency funding levels and to re-direct funding to home energy advice programs. In order to smooth the way for Commonwealth initiatives, each state and territory appointed its own Coordinator-General. Energy Efficiency Coordinators were also established within each jurisdiction to monitor implementation of the EEHP.

Feedback and consultation

One of DEWHA and the Home Insulation Policy Team’s first tasks was to consult with key stakeholders. The first official industry consultation occurred in mid-February at Old Parliament House in Canberra. Attendees included several insulation manufacturers, construction industry representatives and officials from DoFD, PM&C and DEWHA (Exhibit C). Kevin Keeffe chaired the meeting. Notes from the day indicated general agreement that specialist skills for installers were not necessary but that mandatory training should be required, so long as it didn’t impede new entrants. During a discussion on safety matters, including fire risks and ventilation issues, Peter Ruz (Director of ICANZ and industry veteran) brought up New Zealand’s installation fatalities. This referred to the deaths of three DIY installers in 2007 who electrocuted themselves by piercing live electrical cables whilst stapling reflective foil laminate under their floors as part of a similar government scheme. Ruz, however, found DEWHA officials none too keen to explore the matter, Keeffe moving quickly to another topic. He also recalled being advised ‘not to rock the boat’ when it came to discussing competitors’ products. Keeffe rejected that account, claiming that Ruz’s concerns were noted:

I was concerned that competition among the industry players could hijack the meeting, diverting the focus away from the real purpose, namely the department getting good advice from industry about program development and implementation. To this end, I encouraged all industry players to put aside their competitive tensions and focus on developing a consensus approach in their advice. At no stage did I suggest that difficult issues should not be raised for fear they would ‘rock the boat’. I also recall having to intervene to bring the meeting to order and to focus on the common objectives of the meeting, after different participants had criticised different technologies as being overly costly or environmentally ineffective. I clearly remember that as I began to learn more about the insulation

31 In February 2009, all states and territories, bar Western Australia, were led by Labor governments.
32 Ibid.
33 Ibid, p94.
industry at the time I was very concerned that the installation industry was a fragmented, competitive and underregulated sector of the building and construction industry. Still concerned, Ruz emailed Brunoro, and a junior colleague, the following day to reiterate some of the issues with reflective foil products, noting that, ‘...their performance varies significantly depending on the environmental conditions and the way it is installed. Moreover, reflective products when installed as a retrofit in an attic space will typically be stapled to the roof timbers and we need to heed the experience from new [sic] Zealand where three contractors doing this type of work were electrocuted’. He also provided her with at least one article detailing the situation.

Two days after the meeting, Brunoro circulated a draft of Early Installation Guidelines to industry for 'consideration and feedback'. Comments were due on February 23, so the document could be finalised and distributed on 26 February. ‘The process of developing draft guidelines for a new program would usually take a period of months, in my experience’, Keeffe recalled, ‘I remember around that time discussing with Mr Carter my view that the pace of developing the initial guidelines and having them released was quite unprecedented and may have been too rushed’. Upon their release, reflective foil laminate producers contacted the Government, concerned that the Guidelines didn’t make it sufficiently clear that their products were eligible. In response, DEWHA altered the thermal performance criteria and released a revised set of Guidelines approximately a fortnight later. Kimber explained why:

>> We decided that it was difficult to determine the claims and counter-claims and that what we needed to do was, again, bear in mind that rollout and the participation of the maximum number of players was important to the government and it was decided to go with a policy that was product neutral where any product that was available or complied with the Australian Standard would be eligible to be used.

Despite the speed of policy development, Keeffe was not especially concerned about including foil: ‘We noted that the New Zealand program was for unsupervised and untrained do-it-yourself installations of underfloor insulation. It was fundamentally different from the HIP. We were focussed on designing guidelines for a national program for the installation of ceiling only insulation with mandatory training and supervision, delivered through licensed, certified brokers. We concluded that the risk of electrocution revealed in the NZ program did not impact upon the design of the guidelines for the HIP. Released on 12 March, Version 1.1 of the Energy Efficient Homes Package: Early installation Guidelines set out the requirements for participation in the scheme. It noted that upon 1 July, the Australian Government would be establishing a register of skilled insulation installers. The Guidelines also stated that:

>> The Australian Government accepts no liability for any loss, damage or cost incurred as a result of, or arising from, the installation of a ceiling insulation which has been subject to the assistance offered under the Low Emission Assistance Plan for Renters, or its process.

Several days earlier, the National Electrical and Communications Association (NECA) wrote to Minister Garrett raising concerns about insulation and electrical hazards. The letter stated: ‘NECA electrical contractors operating in the residential sector regularly report that installers of thermal insulation

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34 Statement: Kevin Keeffe, [link]
35 Hanger, I. Report of the Royal Commission into the Home Insulation Program, Commonwealth of Australia, August 2014, p95. The 2007 NZ fatalities involved homeowners self-installing, however a professional installer had been electrocuted in similar circumstances 2 years prior.
36 Statement, Kevin Keeffe, [link]
37 Ibid, p196.
38 Statement, Kevin Keeffe, [link]
have covered the lights and have created a potentially dangerous situation’. It also made a number of suggestions for training and public education to reduce the risk of fire and other adverse events. NECA’s letter was forwarded to DEWHA but a response was not rapidly forthcoming, nor was NECA invited to the upcoming roundtable where installer training would be discussed.

Also on 12 March, state Energy Efficiency Coordinators met with OCG and DEWHA staff in Melbourne. They discussed installer training and accreditation, Keeffe noting that it would be important in ensuring that homeowners had faith in installers and that the aim was to provide ‘a nationally consistent short course, with particular focus on installation, OH&S and duty of care’. Approximately a week later, DEWHA convened an industry roundtable in Brisbane, attended by Minister Garrett and industry representatives. Training was still a priority topic. Also on the agenda was the need to increase production. Business owner, Greg Rashleigh, recalled the following exchange:

One of the industry representatives asked a question to the effect of: ‘How long will the Program last?’ In response, Minister Garrett replied with words to the effect: ‘The scheme will run for the full term or until the money runs out. You can take my word for that’...As soon as Mr Garrett said that and the way that he said it, Mr Garrett’s word was enough for me to decide to invest in a new manufacturing mill and ramp up the business to make the most of the Program’s time period.

Risky Business

The Department classified HIP as a ‘Tier 1’ project meaning it was considered high visibility and/or high risk. After an accelerated tender process, DEWHA decided to engage the services of Minter Ellison Consulting. Margaret Coaldrake, then Minter Ellison’s Canberra Chief Executive, took on the task of analysing and documenting risk for the HIP, as well as advising on mitigation strategies. With training in museum administration, Coaldrake would be assisted by a Minter Ellison colleague with experience in private sector insurance and risk. She saw her role as one of a ‘facilitator’ to assist her client DEWHA to:

identify and assess risks that might impact the successful implementation of the HIP. This involved providing a process by which DEWHA could identify and assess risks to the Commonwealth’s development and implementation plan and helping DEWHA develop a risk management plan as part of the HIP Project Plan for the Commonwealth. The focus for the project was on risks to the Commonwealth and its implementation because the Commonwealth cannot manage a risk for someone else.

Her approach was to ‘work right alongside the client to draw from them their knowledge and to increase their skills in the area of risk management. That way, the subject matter expertise comes from the client’. Around the same time, DEWHA contracted the services of Dr Troy Delbridge as ‘a sort of scientific technical advisor to the program on the performance of insulation materials and their use and handling’. With a PhD in environmental science, he had previously worked in evaluating the National Blackspot Road Safety Program. Delbridge would be working in the Renewables and Energy Efficiency Division (REED) in an unspecified capacity under Kimber.

Mike Mrdak meanwhile recalled approaching Senator Arbib on several occasions in March about a possible extension, given the genuine difficulties DEWHA already faced and were likely to encounter...
before 1 July. In response, Arbib stressed the importance of keeping to the Government’s timetable and indicated that it was too early to seek postponement when the delivery model was still to be settled. The senator, however, had no memory of such a request.47

**Change of direction**

In late March, Martin Hoffman joined PM&C as Executive Co-ordinator, Strategic Policy & Implementation Group. His role included providing assistance to the Coordinator-General. A few days later, Hoffman approached Keeffe with some concerns. Hoffman felt that DEWHA’s regional brokerage model may not meet the principle ‘of the need to preserve the relationship of choice between the householder and any qualified installer’.48 The OCG was ‘wary’, he explained, of a model that might be seen to preference or restrict particular installers and discourage new entrants. These concerns were reiterated at a 31 March meeting between Senator Arbib, Mrdak, Hoffman, Carter and Keeffe (Minister Garrett was represented by his advisor Matt Levey.) ‘It was unusual for Mr Keeffe and I to attend a meeting with another minister without it being organised through the Department’s own ministerial office,’ explained Carter, ‘however this could be explained by the fact that this program was part of a package of emergency measures. There was a very centralised control of the stimulus measures at the time in response to the global financial crisis.’

There OCG and PM&C representatives expressed doubts about DEWHA’s capacity to get arrangements in place on time. The tender and contract process alone could delay official rollout considerably. Carter acknowledged that it would be difficult. Hoffman and Mrdak then proposed that the existing model be changed to one where householders engaged installers themselves i.e. a ‘direct access model’ (*Exhibit D*). This was news to Levey who watched as Keeffe and Carter became increasingly rattled. Said Keeffe: ‘Mr Mrdak told us that Mr Hoffman’s previous experience in the private sector was significant and that we should be focussed on getting the product to the consumer, without regulatory barriers or controls. If a consumer had a problem with the installer, then they should raise it with the installer, and if there was no resolution, contact the Office of Fair Trading, as they would with any other transaction in the home’.50 He went on:

> Mr Carter and I were given the new model as a fait accompli. I remember saying to Mr Carter as we left the meeting words to the effect that we had been blindsided, without adherence to the generally accepted Public Service protocols of advance warning or consultation when a central agency intervened over the top of the work of a line agency. The abrupt transition meant that the stimulus / job creation element of the package would drive the project, that minimum standards would apply under the existing regulatory framework, and that no additional contractual arrangements would be considered by the Commonwealth. The Commonwealth would rely on existing market mechanisms, such as contracts between householders and installation companies, to manage issues, including work health and safety and product.51

Despite Mrdak and Hoffman’s somewhat different recollections, Carter and Keeffe understood that this was the model to be pursued and that the official 1 July start date was immutable. Keeffe also assumed the new model already had Garrett’s tacit approval: ‘It was my view that if the Minister had concerns with the change to the new delivery model then Mr Levey would have raised those concerns during the meeting. I do not recall any comments by Senator Arbib or Mr Levey’.52

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48 Ibid, p130.
52 Op cit.
DEWHA started to grapple with the implications, it was becoming increasingly obvious to the former that the Minister’s environmental priorities were not top of mind at the OCG. Other matters, however, were far less certain. Said Levey:

It was unclear to the department and to us exactly where Senator Arbib’s involvement started and finished. I can’t recall whether the request came from us or from the Department, but either way, there was a set of protocols being developed to actually try and detail that relationship because there had already obviously been a series of decisions that were being made where it wasn’t quite clear. Minister Garrett obviously had policy authority but Senator Arbib was doing an awful lot of work on the program.53

At the end of the eventful meeting, Keeffe and Carter left to prepare a brief for DEWHA Secretary Robyn Kruk who would soon be sitting down with Garrett and Arbib herself. Once they and Levey had gone, Mrdak claimed he again asked Arbib about delaying the full rollout to late-2009. This time, according to Mrdak, Arbib replied that he would consult with Prime Minister Rudd.

Exhibit A: DEWHA Organisation Chart

Dashed line – involved mostly in the formulation of the HIP.

This diagram aims to represent the main people involved in the development and implementation of the Home Insulation Program and their approximate structure and reporting lines within the Department of the Environment, Water, Heritage and the Arts, and the Minister for the Environment's Office. It is not intended as an exhaustive list of the people involved, or a precise representation of the organisational structure or staff movement over this time. This chart doesn't necessarily indicate substantive positions.

Dashed line = involved mostly in the formulation of the HIP. * Some positions were occupied by several different people throughout the HIP.

This diagram aims to represent the main people involved in the development and implementation of the Home Insulation Program and their approximate structure and reporting lines within the Department of the Environment, Water, Heritage and the Arts. It is not intended as an exhaustive list of the people involved, or a precise representation of the organisational structure or staff movement over this time. This chart doesn’t necessarily indicate substantive positions.
Exhibit B: HIP proposal and implementation plan

ENERGY EFFICIENCY HOMES PROGRAM
Implementing the Insulation Component

Preface
This paper identifies the key issues and risks posed to the efficient implementation of the proposed insulation component of the measure, and provides a suggested solution that mitigates risks and meets the Government’s objectives.

Assistance Available
The provision of free ceiling insulation and installation is proposed for all Australian homeowners. It is proposed that the measure be delivered over two years with two options considered. The first option is to insulate homes for householder earning less than $11,000 per annum, and the second is to insulate all homes (no means test). The difference in the number of eligible households between the options is less than 15% (see attached insulation table), and for the purpose of the attached castings, insulation for all Australian homeowners has been assumed.

The average cost per house is estimated to be $1,200 and the number of houses to be insulated in Australia is roughly 2,250 (no means test). Householders will be able to contact a call centre and register their interest. The call centre will then send out the request to the regional delivery entity. Delivery entities or agents will be selected through open tender processes for the procurement, delivery and installation of insulation for a particular region of Australia. There may be up to 15 different regions.

Key Issues/Risks on Implementation Design
- The current insulation industry handles around 200,000 homes per year (30,000 existing dwellings and 150,000 new builds). In a submission by the Insulation Council of Australia and New Zealand (ICANZ) to the Victorian Energy Efficiency Target Scheme, the Council states that “members of ICANZ have increased their manufacturing capacity by over 50% in the last three years. ICANZ estimates that its members would have the capacity to manufacture sufficient insulation to insulate Victoria’s 300,000 un insulated houses by 2010. Non ICANZ insulation suppliers may also have additional capacity.” The new proposal would increase this to 1,275,000 per year for two years (1,125,000 plus 150,000 new builds per year or 1,275,000 per year if the proposed changes to the Low Emissions Plan for Reuters proceed). The boom/bust nature of this measure, and the ability of the industry to respond, particularly on the manufacturing side, is questionable. Industry guidance on whether they can expand their capacity rapidly and then reduce production in two years should be sought.
- The willingness of industry to expand to meet the proposed measure requirements in the absence of a medium to long term industry strategy is also questionable and there are significant political risks present if the industry subsequently needs to shed the substantial workforce required to deliver the two year option when demand slumps to current levels.
- Equitable national coverage – rural and regional settings pose challenges to delivery. Levering local expertise and capacity will be critical (as proposed through the regional delivery approach).
- There exist trade-offs between centralised bulk procurement that enables items to be purchased comparatively cheaper on scale but requires centralised
delivery, versus local/regional sourcing of items where non-bulk costs may be higher but distribution costs are minimised and local businesses are supported.

- There are many households in need (2.25m)—ensuring that the support is effectively delivered is critical. Effective tracking will be required to mitigate risks of over subscription. An effective compliance program will also be essential to prevent fraud and ensure that the program is a success.

- Installing insulation without weatherstripping (draft proofing) and sealing significant gaps around windows and doors will limit the effectiveness of the insulation. Adding weatherstripping to the package would increase the cost of the insulation by up to 10% (from $30 to $120 per house depending on circumstances).

- A large risk to the successful delivery of this measure is the potential for costs to be increased significantly. At the moment the average cost to insulate the ceiling of a house is $1,200. However, the increase in demand for insulation generated by the package could significantly increase the average cost, particularly at the commencement of the program when new investment in infrastructure (for the manufacturing industry) will be required. Also, there are some houses that are very expensive to insulate (external roofing may need to be removed for the insulation to be installed).

Proposed Delivery Strategy
The implementation strategy proposed below attempts to address and balance the issues and risks identified above.

.expand the two year program to five years.

If this measure was delivered over five years (instead of two), it would provide significant benefits for the industry and Australian households. A five year measure would approximately quadruple the number of insulation installs per year—providing a more realistic expansion of the industry, adequate time for the industry to adjust and respond to the changes in the market and to make longer term business decisions. Above the significant expansion of installation jobs, there would be substantial increases in insulation manufacturing largely benefiting the domestic economy as “the majority of insulation materials used in Australia are manufactured locally, representing in excess of $100 million in annual sales and approximately 5000 jobs”\(^1\).

Equitable National Coverage
It is proposed that a series of implementation regions are identified and a lead delivery entity (could be a company, business, community organisation or local government) be selected through an open tender process to ensure that the assistance can be delivered consistently across the region. This is likely to involve the lead organisation having arrangements with other organisations/businesses in specific locations to ensure coverage. It also creates local employment and ensures

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1 A submission by the Liquitex Council of Australia and New Zealand (JCANZ) to the Victorian Energy Efficiency Target Scheme: [link](https://www.anzsog.edu.au).
that smaller contractors are not forced out of the market. However, the design of the program will be finalised only after consultation with industry.

**Procurement**
The suggested regional approach with a lead delivery entity would allow bulk procurement and sourcing to occur at a regional level thus optimising scaled procurement opportunities (and limiting administrative issues surrounding bulk procurement by the Commonwealth), regional economy benefits would be maximised via local sourcing where available and the utilisation of local expertise (installation options), and limited channels of assistance distribution would be established for auditing and outcome tracking purposes.

**Distribution and Tracking of Assistance**
The regional approach could minimise complexity in tracking the number of households referred for the assistance to ensure that numbers are staggered over the delivery timeframe and not exceeded. While this would be a demand driven program, further consideration could be given to either staggering the start dates for the various regions, or by prioritising the assistance by household type. For example, householders receiving Government benefits may be accorded a higher priority and insulated first.

**Cost**
At the moment, the installation of ceiling insulation can cost between $660 and $1,600 per house (estimates – www.thisplace.com.au/priceguide/ceiling.htm). Given the likely increase in the cost per house through the introduction of this program, a cap on amount of Government assistance should be explored. For example, the total cost to Government could be capped at $1,600 per house.

**Commonwealth Oversight**
Management of the program would be simplified from a Commonwealth perspective by:

- permitting a small number of contracts with lead businesses/entities to be developed and managed, not large numbers of invoices and payments to installers or householders in each town or locality,
- reducing the significant administrative overheads required by government to manage the procurement and distribution of insulation products and services across Australia,
- consulting with industry on the development of the program to ensure that it is deliverable and successful in meeting the Government’s objectives.

Source:
Exhibit C: List of attendees, Industry Roundtable, 18 February 2009.

Ms Dennis D’Arcy (ICANZ);
Mr Ray Thompson (the Insulation Manufacturers’ Association of Australia);
Mr Warwick Batt (the Polyester Insulation Manufacturers’ Association (PIMA));
Mr Laurie Moylan and Mr Kevin Herbert (the Australian Cellulose Insulation Manufacturers’ Association (ACIMA));
Mr Keith Anderson and Mr Steve Oliver (Aluminium Foil Insulation Association);
Mr Matt Andell (AGI Insulation);
Mr Peter Ruz (Fletcher Insulation);
Mr Anthony Tannous and Ms Kristin Harder (CSR Performance Systems);
Mr Neil Gow and Mr Bob Appleton (Master Builders Australia);
Mr Simon Tennent (Housing Industry Association);
Mr James Fricker (a thermal engineer and consultant engaged by DEWHA);
Mr Brian Ashe (Australian Building Codes Board);
Mr Simon Cox (then Department of Finance and Deregulation),
Mr Chris Johnston and Mr Andrew Wilson (PM&C); and
Mr Keeffe (as Chair), Ms Brunoro, Mr Holt (Director, Appliances Team), Ms Cathy McArthur, Ms Marconi, Mr Kimber and Ms Spence (a Project Officer) (DEWHA).

Source:
Exhibit D: Direct Access Model

The Proposed Model best meets these objectives given the current constraints, especially time

The Program Delivery Manager (PDM) provides functions to both installers and households

Installer Facing Functions
- Provides 1800, website, and written information for potential installers.
- Sets minimum standards for acceptance as a registered installer under the program.
- Registers installers who meet the standards and maintains a register by area.
- Receives and processes claims for payment from registered installers. Compiles statistics by geographic area.
- Audits and inspects installer work and payment claims.

Consumer Facing Functions
- Provides 1800, website and written information for households. (Potential household mail-out).
- Gives information about registered installers servicing a given area in response to enquiries.
- Conducts general information and awareness campaigns.
- Logs complaints and disputes.