Home Power Savings Program

2012 Independent Evaluation

Final report to
Office of Environment and Heritage,
NSW Department of Premier and Cabinet

June 2012

ARTD CONSULTANTS
strategy & evaluation

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Prepared by ARTD Consultants for the Office of Environment and Heritage.

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Abbreviations and acronyms

ACEEE	American Council for an Energy-Efficient Economy
ASAP	Automated Scheduling Allocation Program
CALD	Culturally and Linguistically Diverse
CMPA	Contract Maximum Permissible Assessments
DEAS	DECCW Energy Assessment System
DECCW	Department of Environment, Climate Change and Water
DVA	Department of Veterans' Affairs
EECAP	Energy Efficiency Community Awareness Program
EES	Energy Efficiency Strategy
ESS	Energy Savings Scheme (NSW)
FY	Financial Year
HPSP	Home Power Savings Program
IAB	Internal Audit Bureau
IPART	Independent Pricing and Regulatory Tribunal
ISF	Institute for Sustainable Futures
LCSA	Local Community Services Association
NABERS	National Australian Built Environment Rating System
NGO	Non-government organisation
NSW	New South Wales
OEH	Office of Environment and Heritage
PAP	Power Action Plan
PCC	Postcode Cluster
PRAP	Preventative Action Plan
PSK	Power Savings Kit

Executive summary

Background to the Home Power Savings Program

In 2010, the NSW Government anticipated that electricity prices would rise by more than 40% over the three years ending 2013, similarly to the three years previous.[1] The Independent Pricing and Regulatory Tribunal (IPART) estimated that between 2011/12 and 2012/13 annual bills would increase by between $32 and $196 depending on the supply area.[2] These increases are now occurring and are likely to have a significant impact on low-income households, which are already struggling to pay their bills.

The HPSP

To help those households disproportionately affected by rising electricity prices, as part of the NSW Energy Efficiency Strategy (EES), the Government launched the $63 million Home Power Savings Program (HPSP) in May 2010 following a two-year development phase including pilots. The aim of HPSP is to help 220,000 low-income households reduce their power use and bills by the end of June 2014. The free program includes three main components: a kit of energy efficient items, a home power assessment and a tailored action plan identifying free and low-cost ways for the household to save power. The program is managed by the Office of Environment and Heritage (OEH), and Fieldforce is the contractor delivering energy assessment services.

The HPSP has an evaluation framework and strategy, which fits within the broader EES evaluation framework and is based on a program logic designed in 2011.

The evaluation

OEH contracted ARTD to independently evaluate the HPSP with two main objectives: inform future directions for energy efficiency programs and contribute to the overall evaluation of NSW energy efficiency initiatives. This report is the final deliverable of the interim evaluation of the HPSP undertaken between January and March 2012. The focus is on processes and the extent to which the program is on track to achieve its goals one and a half years after its launch.

To assess the effectiveness of the program we looked at the initial design and the changes made to it during implementation. Reconstructing the story of the program helped identify its strengths and weaknesses to date.

The report relies mainly on the review and analysis of existing data: program documents, monitoring and audit data, especially from the DECCW Energy Assessment

[1] Industry and Investment NSW, NSW Electricity Network and Prices Inquiry, December 2010
[2] IPART, Changes in regulated electricity retail prices from 1 July 2011, June 2011

System (DEAS)—HPSP assessments reporting system; assessors' survey, and focus groups with low-income households. We also collected primary data through interviews with program managers and key external stakeholders. The evaluation includes a pilot case study in Batemans Bay, a location where the program is performing well, to collect information on success factors and barriers in this specific context that may inform program delivery elsewhere.

The findings from the different data sources were largely consistent and we are confident that they provide the evidence for a sound assessment. Some gaps in data remain, such as feedback from participants after the assessment, and measures of actual savings through billing data analysis (currently being developed), suggesting the need for additional data collection as part of a final evaluation.

Findings and lessons learnt

A two-year development phase and a one-year take-up period were necessary to refine HPSP objectives and delivery mechanisms, to appropriately target low-income households

The HPSP was initially designed with a very broad policy brief—delivering an energy efficiency program to 220,000 low-income households across NSW to reduce their energy bills. This kind of program, with energy efficiency and equity dimensions, was new to OEH and larger than most programs it delivers. It took two years of development including three pilots to fully establish the program settings, components and delivery mechanisms and conduct the procurement process for a multi-million dollar tender. During this time, OEH initiated what have proven to be some of the program's key strengths: involving external stakeholders, developing comprehensive IT systems, and establishing robust audit and reporting systems. Not all these challenges were anticipated in the development phase.

The equity objective of reaching low income households was a major shift for OEH and very different from the other energy efficiency programs. It meant engaging with the social welfare sector and especially with organisations with access to low income, Aboriginal and CALD communities. HPSP began by working with Housing NSW to establish a facilitated referral process to reach a high number of social housing tenants, who represented convenient 'low hanging fruit'. As the program progressed, more relationships were built with social welfare organisations to promote the program. Despite the early promotion through Housing NSW HPSP still did not meet its initial quantitative targets. It was anticipated that there would be strong demand for this free program among eligible households, but in practice the main difficulty was generating sufficient demand. Recognising this, the HPSP team developed a comprehensive marketing strategy to support local promotion through communication activities conducted by OEH, Fieldforce and external stakeholders such as social housing providers, local councils, NGOs, neighbourhood centres or the Energy Water and Ombudsman of NSW. With the appropriate resources and tools in place, HPSP is now able to reach its target audiences. While some target groups like senior households are

over-represented among participants to date, the evaluation identified no significant gaps within the target groups.

Feedback from participants is very positive, especially in relation to the free kit items and the tailored assessments, revealing that the HPSP is meeting the expectations of the target audience. However, some participants had a negative perception of different kit items being provided to participants without apparent justification of eligibility criteria. Some participants also expressed concerns that the action plan did not provide a realistic view of expected savings.

Opportunities to enhance the program's appropriateness included adapting the kit items to the changing context (e.g. there is lower demand for showerheads than for insulation items), or to the characteristics of the dwelling (e.g. providing additional items for households with a larger number of bedrooms that show greater opportunities for savings, according to a 2011 CSIRO research).

After one and a half years, one-third of the 220,000 assessments have been delivered, but take-up has differed between target groups and geographic areas

As at the end of December 2011, 73,426 assessments had been delivered, one-third of the overall target. With an additional year of operation under *NSW 2021* and encouraging results from early 2012, it is expected that HPSP will reach the target of 220,000 assessments by the end of June 2014. But unless there are sufficient assessors, there may be a bottleneck in the delivery of assessments. Assessors are the front face of the program and have proved to be a strong asset so far in delivering quality assessments, as well as providing a key contribution to the programs' promotion. OEH should consider the assessors workforce as a key asset and make the best use of it during the remaining months of the program.

Take-up has varied significantly across Postcode Clusters (PCCs are the geographic areas created to manage the delivery of the program), from 10% of the target achieved in Sydney North to 69% achieved in Sydney South West. PCCs are the geographic areas created to manage the delivery of the program, and reasons for the program's relative success or failure vary from one PCC to another.

Overall, the program has been successful with Housing NSW tenants and seniors, but there are no clear take-up patterns valid for all PCCs. Some PCCs with these 'success' factors are not high-performing while others without them do well. For example, Sydney Hills has a high proportion of social housing tenants in its eligible population (37%) but uptake has not been high (only 25% of the target reached), while the South Coast has had good uptake (60% of the target reached) with a small proportion of social housing tenants (only 8%, in the eligible population).

The case study conducted in Batemans Bay on the south coast provided useful information about successful uptake there. The local promotional strategy plays a key role, and to successfully engage the target groups it must be based on local demographics. In Batemans Bay, more than 60% of the eligible population are over 65.

The local promotional strategy relied heavily on a stand held by the assessor's wife in a local shopping mall, which proved very successful in engaging seniors: 67% of the participants in Batemans Bay area reported hearing about the program from the shopping mall.

To improve the uptake of the program in low-performing PCCs, HPSP should continue to use mini-campaigns, which began in late 2011, to refine the marketing mix and promotional strategy based on local demographics.

In the remaining two years of operation the program should also put additional efforts into reaching target groups covered by the HPSP equity objective, in particular CALD and Aboriginal households. Engaging further with community organisations to promote the program could help overcome cultural and language barriers. Community organisations could also be involved in program delivery through bilingual or Aboriginal assessors.

There is room for improved coordination between HPSP and other energy efficiency initiatives

Some coordination and common initiatives exist between the HPSP and other NSW energy efficiency initiatives, especially with the Energy Efficiency Community Awareness Program (EECAP) that targets the general public. HPSP action plans, for instance, use the language of EECAP's broad communication campaign, specifying the number of 'black balloons' of carbon pollution saved by making changes. These two programs did not develop common communication activities, but this may change as HPSP and EECAP are now working on a common communication strategy to reach CALD communities. The evaluation did not identify any particular coordination with the EES training program or other initiatives. There are even some instances where the delivery of HPSP assessments conflicted with other energy efficiency programs. Certificate generation under the Energy Savings Scheme (ESS) saturated some areas with items like showerheads or light bulbs that are part of the HPSP kit. This suggests some degree of siloing of programs and scope for further collaboration.

A number of other existing or new initiatives are also targeting low-income households to promote a more efficient use of energy. As part of its Clean Energy Future plan, the Commonwealth Government is developing programs that are expected to start by mid-2012. Other organisations, like energy retailers, are also very active in this area. One of the challenges for the next phase will be for HPSP to find its place in this very dynamic environment, while preserving the clarity of its message and objectives.

Value for money has been a constant preoccupation to ensure efficient delivery of the program

Initially, the HPSP was designed with a budget of $286 per assessment, which was considered particularly low considering that the power savings kit delivered is worth up to $200 in retail value. OEH paid particular attention to overall value for money—which aims at getting the best possible service at the best possible cost—in selecting the

contractor for the delivery of energy assessments services, a significant proportion of the HPSP budget. This had some important implications on the pricing model supporting the delivery of assessments, especially the payment of assessors. In the end, unit payment per assessment as per the contract covers mainly the actual costs for the assessment and related tasks (data entry, reporting, etc). But it does not provide a sufficient incentive for local promotional activities assessors perform and that can play a key role in successful uptake. This is illustrated in the Batemans Bay case study, where the assessor, and more specifically his wife, contributed significantly by promoting the program in the local shopping centre.

From the commencement of development in June 2008, until the end of February 2012, $21.3 million out of the $63 million budget was spent. Costs incurred for the provision of kits and the delivery of assessments made up 83% of HPSP expenses in the first year of implementation (2010/11) and it should make 52% of 2011/12 expenses considering budget forecasts for March to June 2012. This is as a result of higher increases to other budget items, including grants paid to NGO and local councils to promote the program and OEH contractor staff. Forecasts are that actual expenses should be slightly below $60m at the end of the program, representing an average cost per assessment of approximately $270. Despite the substantial increase in HPSP staff and one year added to the program timeframe, OEH has managed to maintain efficient delivery of the program.

In the absence of data on actual savings, it is estimated that one assessment would deliver 1MWh annual savings for a forecasted $270 final cost

Information on actual savings in electricity for households participating in the program was not available at the time of the evaluation. The billing data analysis conducted as part of the evaluation program of the overall NSW energy efficiency initiatives will provide preliminary results by mid-2012 that could inform the assessment of HPSP cost-effectiveness.

In the meantime the HPSP team developed an internal reporting process based on estimated savings for kit items installed during the assessment (specified to householders in their action plans and recorded in DEAS) with several discounting factors applied. In particular, it recognised that some participants will not change their behaviour to the suggested extent and predicted gains would be lower. This method is intended to provide a more realistic estimate of savings. The estimate suggests one assessment is expected to deliver approximately one megawatt-hour of electricity savings per annum, with the savings expected to continue over several years. With an average cost of $270 per assessment, HPSP is expected to deliver a return on investment within four years when considering the $80 per MWh benchmark representing the economic cost of new electricity supply that was used during the design phase in 2008.

A lot can be learnt from HPSP to inform future approaches to energy efficiency for low-income households

Because of the long development phase and the changes made to HPSP to suit the context, the lessons are important for developing similar initiatives. Key tools and processes that contributed greatly to the effective implementation of the program were:

- engaging external stakeholders as early as possible
- designing and testing IT systems that support the delivery of the program
- planning for robust reporting, audit and evaluation processes.

In terms of the last point, HPSP did not have a comprehensive monitoring and evaluation strategy early on. This would have contributed to making the best use of the performance data regularly collected to inform further development of the program through a continuous feedback loop. Appendix 6 provides an example of a dashboard tool that presents assessment performance data in a convenient way to support the program management.

Another key point is that such mass-volume programs require promotional strategies designed locally according to the characteristics of the target audience. The quality of products and services delivered also makes a substantial contribution to the success of such programs that rely heavily on word-of-mouth.

Furthermore, programs of this size require such a significant initial investment that every opportunity should be taken to enhance their impact over time. This can be achieved by ensuring sustainable change and increasing their breadth by linking them to other relevant initiatives targeting low-income households.

Finally the 2012 evaluation of the HPSP offers lessons to the broader energy efficiency sector for the design and implementation of such programs, and this report should be considered for wider dissemination. Further the HPSP is now a relatively well-embedded program that is being implemented effectively and is expected to continue to June 2014. Methods such as billing data analysis, behavioural change measures and local case studies should enable assessment of program outcomes. On this basis the HPSP warrants future evaluation to reach conclusions about its ultimate effectiveness, which should be a valuable and timely input into the broader policy discussion.

Key recommendations

This evaluation report includes strategic and operational recommendations for improving the current delivery of the program and its impact. We have regrouped the key recommendations in four main program areas.

Program design

- Specify operational settings and quantitative targets to reach CALD and Aboriginal households as part of the equity objective
- Consider potential extension of HPSP target groups through new eligibility criteria to benefit from emerging opportunities
- Put a greater focus on eligible households that are in most need and less likely to have developed energy efficient behaviours (compared to seniors) but that may be more difficult to reach
- Keep the power savings kit as relevant as possible by considering changes to kit items (e.g. in areas like power management and insulation) in line with technological, institutional or economic developments
- Consider flexibility in the number of kit items distributed according to the needs and potential for savings of each dwelling
- Consider refinements of the program in the context of the new Commonwealth initiatives in the area

Program promotion

- Refine mini-campaign strategy and marketing mix in the light of local demographics and characteristics of each Postcode Cluster
- Consider jointly with Fieldforce any relevant opportunity for program promotion
- Explore further collaboration with NGOs to generate referrals to the program

Program delivery

- Maintain a sufficient number of qualified and motivated assessors able to deliver the expected number of assessments across NSW
- Consider specific delivery arrangements to reach hard-to-reach target groups, e.g. delivering assessments through community organisations for Aboriginal households, emerging communities or in rural areas
- Increase awareness among assessors of the importance of consistency in the delivery of assessments or of being clear about justifications for the differences in the types of kit items distributed
- Revise the Power Savings Action Plan distributed to participants to ensure that suggested actions are appropriate and expected savings realistic
- Streamline OEH and Fieldforce complaints and compliments process
- Develop a strategy to engage participants in a continuous relationship and make the best use of the significant amount of data collected through assessments in a broader and longer perspective

- Develop further synergies and cooperation with NSW energy efficiency programs and other initiatives that may increase the impact of the program

Monitoring and evaluation

- Make the best use of the significant amount of data collected through the assessment database (DEAS) to inform program management, e.g. on the program uptake following mini-campaigns, and policy design
- Develop an evaluation strategy for a comprehensive outcomes evaluation of the HPSP before its funding ceases in 2014
- Develop a participant follow-up survey to inform HPSP final evaluation about actual use of kit items and implementation of suggested tips
- Review the internal savings calculation in the light of actual information about kit items distributed (installed or left behind) and results from the billing data analysis

1. The Home Power Savings Program

Understanding the context for, characteristics of, and underlying rationale for, the Home Power Savings Program (HPSP) is a key preliminary stage for evaluating the program. Outlining the program logic, objectives and delivery arrangements will provide a clear basis for analysis of the program's strengths and weaknesses.

This chapter's synthesis of the program's background and descriptive information from a broad range of sources should help to provide a shared understanding of the program among all stakeholders. While some areas appear to be insufficiently documented or the information spread between various stakeholders, this chapter clearly identifies the program's operational objectives, describes the rationale for the allocation of the 220,000 assessments across New South Wales into Postcode Clusters (PCC), and makes explicit the program's intended outcomes through the program logic, representing outcomes at progressive levels.

1.1 Policy context

The HPSP is a NSW Government commitment in *NSW 2021* and a major component of the NSW Energy Efficiency Strategy (EES), with an expenditure of $63 million over the 2008–2013 period. The program's timeframe has been extended to June 2014 and the budget will be updated accordingly.

1.1.1 *NSW 2021*

The HPSP is directly referred to in the NSW Government's *NSW 2021* under goal 5, 'Place downward pressure on the cost of living', with accountability to the Minister of Finances and Services.[3] HPSP aims at 'containing electricity costs through efficient energy use' and specifies the HPSP operational objective as follows:

> *'Support 220,000 low income households to reduce energy use by up to 20% by June 2014'.*

As well as addressing this specific goal, HPSP is also intended to contribute to other *NSW 2021* goals, particularly achieving equity for culturally diverse groups (people from CALD and Aboriginal backgrounds) and the protection of the most vulnerable people of the community.

1.1.2 NSW energy efficiency policy and programs

In June 2008, the NSW Government announced the $150 million NSW Energy Efficiency Strategy (EES), managed by the Office of Environment and Heritage (OEH).

[3] NSW Government, *NSW 2021* – A Plan to make NSW number one, September 2011

The EES is a suite of policies and programs that aims to achieve a set of inter-related environmental and economic outcomes:

- reduce impact of energy price increases for users
- reduce greenhouse gas emissions
- delay new electricity supply infrastructure
- improve energy productivity
- reduce costs to the NSW economy.

Seven of the eight EES policies and programs target different types of stakeholders and use a range of strategies—advisory, communications, provision of tools (such as audits and kits), subsidies, regulation and training. The eighth policy, the Energy Savings Scheme (ESS), is considered separately because it is different to the others, being regulatory in nature (setting mandatory energy savings targets for electricity retailers), and the specific governance arrangements mean OEH does not have direct control. Among the seven EES policies and programs, the most substantial program is the HPSP, which accounts for around 43% of the investment directly managed by OEH.

Some links exist between HPSP and other EES programs, especially

- the Energy Efficiency Community Awareness Program (EECAP)
- the Energy Efficiency Training Program (EETP)
- the Energy Saving Scheme (ESS).

1.1.3 National context

In the wider policy context, energy efficiency is receiving more and more attention across Australian states and territories and at the national level, especially in the context of the Commonwealth Government's carbon tax. As part of the Clean Energy Future plan, the Commonwealth Government has developed two initiatives targeting low-income households.

- The Low Income Energy Efficiency Program, a $100 million program, was launched on 9 February 2012. It aims to support groups of community organisations, local councils and energy service companies to demonstrate smarter energy use in low-income households across Australia and to trial energy efficiency approaches in low-income households.
- The Home Energy Saver Scheme is still under development and is expected to assist low-income households find more sustainable ways to manage their energy consumption.

1.2 HPSP characteristics

1.2.1 Overview of the program

The HPSP aims to provide free home power assessments and power savings kits to 220,000 low-income households by June 2014, about 20 per cent of approximately one million households deemed eligible (15% of the NSW population). The program is targeting CALD and Aboriginal households, in particular, in line with its equity objective. Participating households are expected to save up to 20 per cent of their energy use per year.

HPSP is a new and innovative program for OEH, drawing upon knowledge of energy efficiency and of behaviour change with low-income groups. While some previous energy efficiency programs have targeted households—for instance Queensland's ClimateSmart Home Service or South Australia's Residential Energy Efficiency Scheme—none have specifically targeted low-income households. HPSP also uses innovative methods to reach target households, such as through Housing NSW, other social housing providers and NGOs.

1.2.2 Program objectives

The program's operational objectives are described in the contract document for HPSP funded Energy Assessment Services and may be formulated into two overall objectives:

1. Deliver 220,000 assessments to lower income households that include
    a) Installing energy saving kit items (e.g. low-flow shower head)
    b) Providing information and advice to householders on changes they can make to achieve energy savings (e.g. turn off standby mode of appliances)
    c) Motivating the household to change their energy usage behaviour
    d) Identifying energy efficiency improvements to the dwelling (e.g. install ceiling insulation) and presenting them in a personalised Power Action Plan.
2. Ensure equity in delivery of assessments to
    a) all eligible households across the different regions of NSW
    b) households from culturally and linguistically diverse (CALD) backgrounds
    c) Aboriginal households.

1.2.3 Program scope and eligibility

The program is open to NSW residents who have a Centrelink Pensioner Concession, Low Income Health Care card, a Veterans' Affairs Pensioner Concession or Veterans' Affairs Repatriation Health card (Gold or White), or who are an energy utility hardship customer or a social housing tenant and who contribute to the energy bill.

Initially the program estimated the number of eligible households at 991,827, based on Australian Bureau of Statistics (ABS) data for households on a disposable income of less than $1,000 per week. This figure was revised to 1,008,342 in November 2011 based on data from Centrelink, the Department of Veterans' Affairs (DVA) and Housing NSW.

The 220,000 assessments funded by the program were allocated across NSW into specific geographic areas—Postcode Cluster (PCC)—in four steps.

1. Calculate the distribution of number of low-income households (991,827) in each postcode.
2. Distribute the 220,000 funded assessments across the postcodes using the distribution of low-income households in each Postcode (%).
3. Use Australia Post PreSort Indicators to group adjacent postcodes into 22 'clusters' each containing approximately 11,000 funded assessments.
4. Review the PCCs to identify any geographic or business problems for delivery of assessments and make adjustments.

The 22 PCCs formed the contract areas that were used in the tender for the provision of energy assessment services.

1.2.4 Program outputs

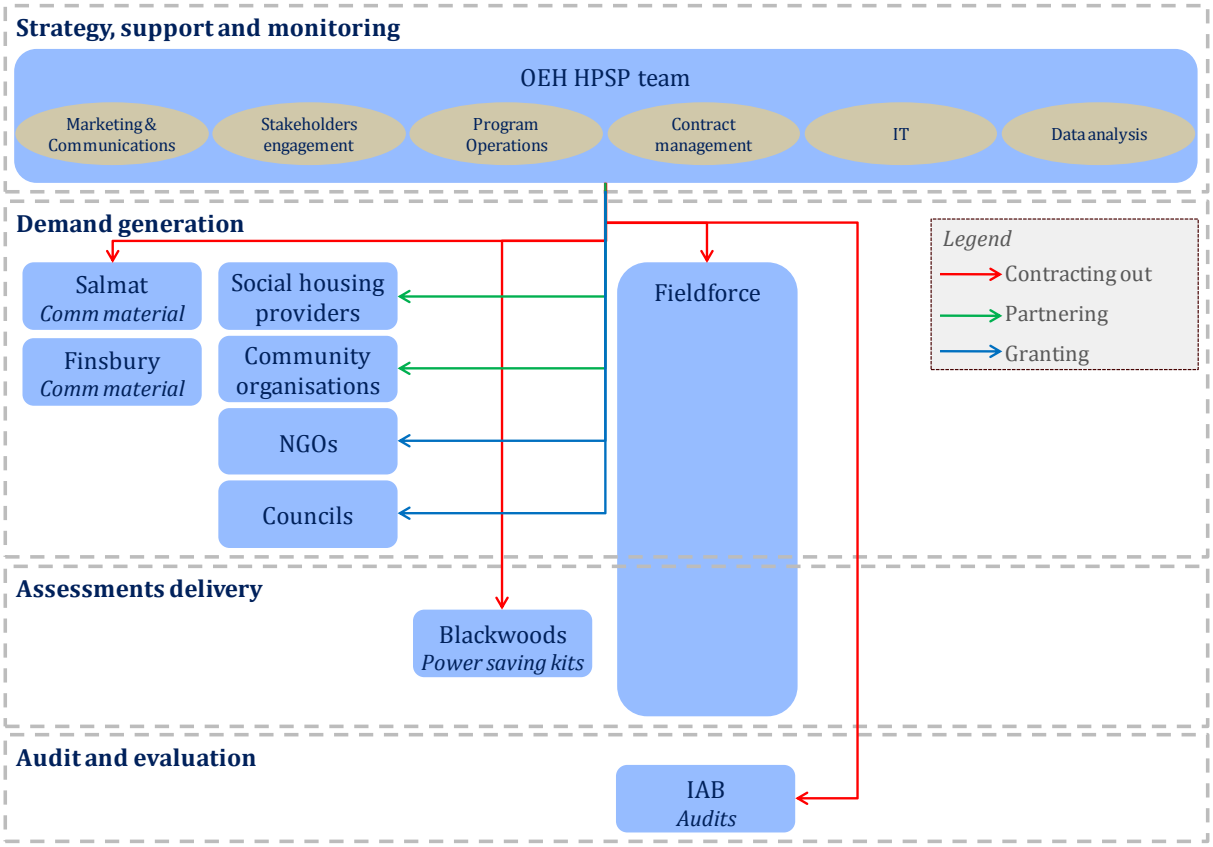
Through the HPSP, participating households receive free

- **a home power assessment** through an on-site visit by an energy expert, which takes about an hour and shows the householder how much their appliances cost to run and where savings can be made
- **a Power Savings Kit**, worth up to $200, installed by the energy expert (the kit currently includes a calico bag, 4 x Compact Florescent Light (CFL) globes, shower timer, 2 x door snakes, thermometers and a Jackson's Power Board (JPB), and optional fixed items: door and window seals, tap aerators and low flow shower heads)
- **a Power Savings Action Plan**, which lists free and low-cost ways for the household to save power, money and cut carbon pollution.

1.2.5 Program design

There have been several changes to the delivery of HPSP, but the model still relies on the program team in OEH coordinating the overall implementation, with the actual delivery of assessments contracted to an external provider. Partnerships with external stakeholders are an important aspect of the delivery structure. The HPSP team is split between functions including, marketing and communications, stakeholder engagement and contract and finance management (see figure 1.1).

Figure 1-1. HPSP delivery model



Source: ARTD, 2012

OEH is working with four main contractors for the delivery of the program:

- Fieldforce to book and carry out the assessments
- Blackwoods to purchase, store and distribute items for the Power Savings Kits
- Internal Audit Bureau (IAB) to carry out the audit on Fieldforce services
- Salmat and Finsbury to print the all communication material required by the program

OEH conducted an open tender to engage providers to conduct energy assessments in 22 contract areas, or Postcode clusters, across NSW. Fieldforce was the successful tenderer for all 22 contract areas. Consequently, Fieldforce has played a key role in the implementation of the program, from demand generation to the delivery of assessments.

The OEH HPSP team is also partnering with a number of external stakeholders to ensure appropriate uptake of the program:

- social housing providers, in particular Housing NSW
- community organisations like neighbourhood centres
- NGOs (e.g. the Salvation Army)
- local councils and Local Aboriginal Land Councils.

1.3 Program logic

The HPSP is a service delivery program that aims to achieve the longer term outcome of energy savings by engaging with the target group and delivering energy efficiency products and services to them.

The program logic diagram for HPSP builds on the original evaluation framework to reflect the evolution of the program. The approach to program logic used is the 'outcomes hierarchy'. At the top are the broad policy outcomes to which the program aims to contribute. At the bottom are the resources and activities the program uses to generate a series of 'immediate' and then 'intermediate' outcomes, which lead to the higher level outcomes. It also shows other factors (e.g. other energy efficiency initiatives, participants' demographics, media portrayal of energy efficiency, etc.) that may influence the program.

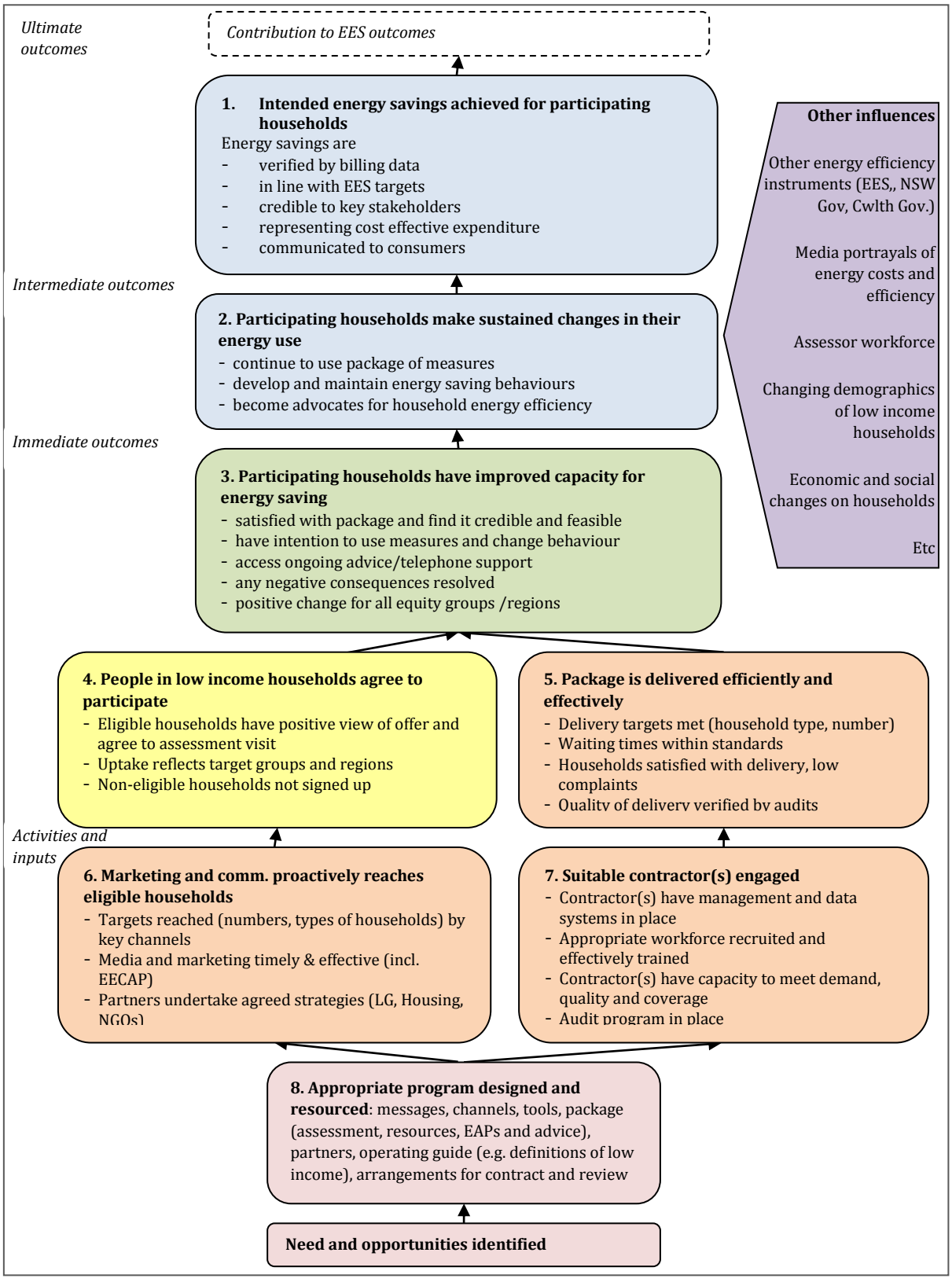
The HPSP program logic shows the two main streams that support successful program delivery.

1. Marketing and communications to people in the target group, using a range of strategies including going through intermediaries, such as local councils, NGOs and Housing NSW. OEH's Energy Efficiency Community Awareness Campaign (EECAP) is also expected to contribute to changing knowledge and attitudes.

2. Engaging and managing a suitable provider/s to deliver the package of assessments, kits and action plans to participants.

If both these activities occur effectively, the logic is that participating households will have increased capacity for energy saving, in turn leading to sustained changes in behaviour and energy use.

Figure 1-2. HPSP program logic



Source: ARTD, 2011

2. Evaluation purpose, scope and methods

Energy costs to low-income households are a 'hot-button' issue and significant policy concern. There is great interest in learning from HPSP to inform future policy directions and the broader evidence base. Key issues include what works for whom, and under what circumstances.

This chapter explains the context for and objectives of the HPSP evaluation, the key evaluation questions and the methods used in assessing the program.

2.1 Developing evidence-based findings around the NSW energy efficiency policy and HPSP

As part of the an overall NSW energy efficiency policy, the Office of Environment and Heritage (OEH) developed an ambitious evaluation program to address concerns, such as those raised in the findings of the 2007 Inquiry into Electricity Supply in NSW, about the lack of reliable information on energy savings. OEH has demonstrated a strong commitment to evidence-informed policy and program development in a policy area in which, in recent years, several programs have been cancelled or substantially changed after concerns were identified.[4]

In this context, OEH has contracted ARTD to independently evaluate the HPSP.

2.2 Evaluation of the HPSP

2.2.1 Evaluation aims

In this context, the evaluation of the HPSP has two main purposes.

1. **Inform future directions for energy efficiency programs** targeting low-income households, including improving the current HPSP delivery. This includes telling the story of how the HPSP has worked, the changes that were made, and the achievements and barriers at different outcome levels.
2. **Contribute to the evaluation of the overall NSW energy efficiency policy**. This involves assessing HPSP's effectiveness in contributing to outcomes, including achieving verified energy savings and identifying effective approaches to working with low-income households. In particular, the evaluation will provide data for the evaluation report of NSW energy efficiency policy and programs in June 2012.

[4] Examples of energy related programs that have been cancelled or substantially changed include the Commonwealth Government insulation program, Commonwealth Government Green Loans program, the Renewal Energy Target and the NSW Government solar feed-in tariff. Many of these changes reflected inadequate understanding of the markets in which the programs operated.

The interim evaluation, as a formative evaluation, is focused mainly on the first of these purposes, with a view to identifying any relevant areas for improvement before the end of the program.

2.2.2 Evaluation approach

The evaluation has a theory-based approach using the program logic to provide a basis for causality. The evaluation framework and strategy are based on the program logic and to fit within the evaluation framework for the NSW energy efficiency strategy (see Appendix 1).

This evaluation report follows the program logic (Figure 1-2) upwards, starting from the initial program design to program outputs and outcomes, ultimately measured in terms of achieved energy savings. This process allows us to reconstruct the program story and to identify underlying reasons for emerging issues at each outcome level.

2.2.3 Key evaluation questions

We have structured the evaluation strategy to answer the six key evaluation questions.

1. **Appropriateness**. How appropriate are the program objectives and design? How well does the approach suit the emerging policy context? How appropriate is the approach for different sectors within low-income households?
2. **Effectiveness.** How effective is the program in reaching low-income households and generating sustainable energy savings? What are effective strategies for engaging people in the target groups? What works for whom in what circumstances? What are the success factors and barriers to effective delivery?
3. **External coherence.** What kind of linkage exists with other energy efficiency initiatives? No link, complementing, synergy, redundancy? What is the impact on HPSP of other NSW energy efficiency programs especially community awareness, training?
4. **Efficiency**. How efficient is program delivery?
5. **Cost effectiveness**. How cost effective are the actual or likely energy savings?
6. **Lessons.** What are the emerging lessons for program delivery and future approaches to sustainable energy efficiency for low-income households.

2.2.4 Timeframe and milestones for the interim evaluation

ARTD conducted the HPSP interim evaluation between January and April 2012. The evaluation started with the inception meeting on January 11th. Data collection and analysis tasks were undertaken between January and March 2012. This report is the final deliverable for the interim evaluation; it presents the data collected and analysed during this process.

2.3 Methods for the interim evaluation

2.3.1 Overview of data collection methods

The evaluation uses both qualitative and quantitative methods, providing multiple lines of evidence upon which to base conclusions. It maximises the use of existing program data, including qualitative data from households and assessor surveys. In addition, ARTD collected new data through

- interviews with key stakeholders from the HPSP team, Fieldforce and key partners
- a pilot case study in Batemans Bay, a high performing postcode in terms of household participation.

Data collection methods are further detailed in Appendix 2.

2.3.2 Confidence in the findings

There was no overall evaluation and monitoring framework for the HPSP development phase, but robust IT systems—especially DEAS—and audit processes enabled the collection of a significant amount of performance data. Data from these sources provided key information for the evaluation.

There were, however, some gaps in the documentation and data available at the time of the evaluation.

- It was difficult to identify reference documents informing the initial rationale and design of the program.
- Limited information is available about actual use of kit items and impact of the assessment on householder behaviour.
- Results of the billing data analysis, intended to measure energy savings for HPSP participants, were not available at the time of the evaluation.

The evaluation methods were implemented largely as planned and provided comprehensive data for the evaluation. Despite the above mentioned limitations, the methods were triangulated in that they addressed the same questions from different stakeholders' perspectives, and the findings from the different methods were largely consistent. As a result we are confident that the findings provide the evidence for a sound assessment.

Methods for the final evaluation should address the gaps identified in data collection. In particular, a participant follow-up survey would provide valuable insight into participant engagement, experience, satisfaction, and the program's potential impact on behaviour change.

3. Program development and initial settings

This chapter focuses on the bottom outcome level of the program hierarchy with a view to assessing the extent to which HPSP was appropriately designed and resourced. It covers the program objectives, target population and delivery mechanisms.

3.1 HPSP was designed with an ambitious quantitative target that overshadowed other challenging objectives

3.1.1 Initial objectives and their operational implications

The main objective of the HPSP is 'delivering 220,000 assessments to low-income households across New South Wales' as outlined in *NSW 2021*. But identifying broader objectives and the rationale for these is a more difficult task in the absence of one reference program document that is used by all staff. By default, the HPSP contract for energy assessment services is often referred to as providing the overall program framework, but this document does not describe the program's policy background and strategic objectives.

Based on all available documentation and discussions with HPSP staff, we have reconstructed the HPSP objectives and program logic as presented in sections 1.2.2 and 1.2.3. HPSP has two main objectives: firstly delivering the 220,000 assessments to low-income households, and secondly ensuring equity in the delivery of assessments. The main focus has been on the first objective and reaching the total target, meaning the second objective has been given less attention. But this equity objective has significant implications for program delivery in terms of the geographical distribution of assessments and reaching specific target groups (CALD and Aboriginal households).

While there are clear operational mechanisms in place for reaching the overall target and an equitable geographic distribution of it, mechanisms for reaching the other equity objectives have not been specified in such detail. The overall target was clearly defined and purposefully set at an ambitious level considering the overall low-income population. The Energy Assessment Services contract divided the 220,000 funded assessments into 22 post code clusters (or contract areas) based on the distribution of low-income households, thus ensuring strict implementation of the equity objective from a geographical point of view. The aim to reach CALD and Aboriginal households was not translated in the same way into clear operational settings or quantitative targets. While rigid targets can create difficulties in implementing a new program, HPSP may have benefitted from a more consistent level of detail specified for achieving all program objectives.

Some stakeholders think the 220,000 target is too ambitious and difficult to reach. Others consider it a positive aspect of the program, which is necessary to achieve real

change and in line with the leading role the Government should play in emerging areas like energy efficiency.

3.1.2 From targeting low-income households to defining eligibility criteria

The 220,000 target was based on the total estimated number of eligible households and the $63 million budget available (see section 1.2.3). The implicit assumption, based on similar programs particularly in Queensland, was that demand would be very high and promotion would not require a major effort.

The HPSP team defined specific eligibility criteria for the program to target low-income households based on criteria used for the former NSW Energy Rebate program, which did not require direct access to income data (see section 1.2.3) but was based on types of concession cards.

These criteria have been slightly refined during implementation and the estimated number of eligible households updated. During the initial delivery, it was initially unclear whether social housing tenants also had to hold an eligible card to be part of the program. The decision to make all social housing tenants eligible has made it easier to target this important group of potential participants, especially through Housing NSW. OEH and Fieldforce also gave additional thought to expanding the eligibility criteria, while ensuring the target remains on low-income households. Since December 2011, residents of mobile homes have been considered eligible on condition that they contribute to their electricity bill and meet the other specific eligibility criteria.

Feedback from assessors highlights that some eligible cards may be held not only by low-income households, for instance the DVA card is not means-tested. The issue related to targeting low-income households is that having a low income may not mean having a low asset base, particularly in areas with high-value properties. While these cases may, in practice, pertain to only a very low number of eligible households, it poses the question of how best to define low-income households.

The ABS defines low-income people as 'those who fall into the second and third deciles (bottom 10% to 30%) when all people are ranked according to the level of their equivalised disposable household income.'[5] People falling into the lowest decile are excluded because the value of their income does not appear to be an appropriate indicator of the economic resources available to them because they also rely on income support provided by social security pensions and allowances.

These challenges show that there is no unique way to define and identify low-income households. The main objectives in defining eligibility criteria for HPSP should be to ensure

1. alignment with the policy brief and the program rationale

[5] ABS, Measures of Australia's Progress, 2004

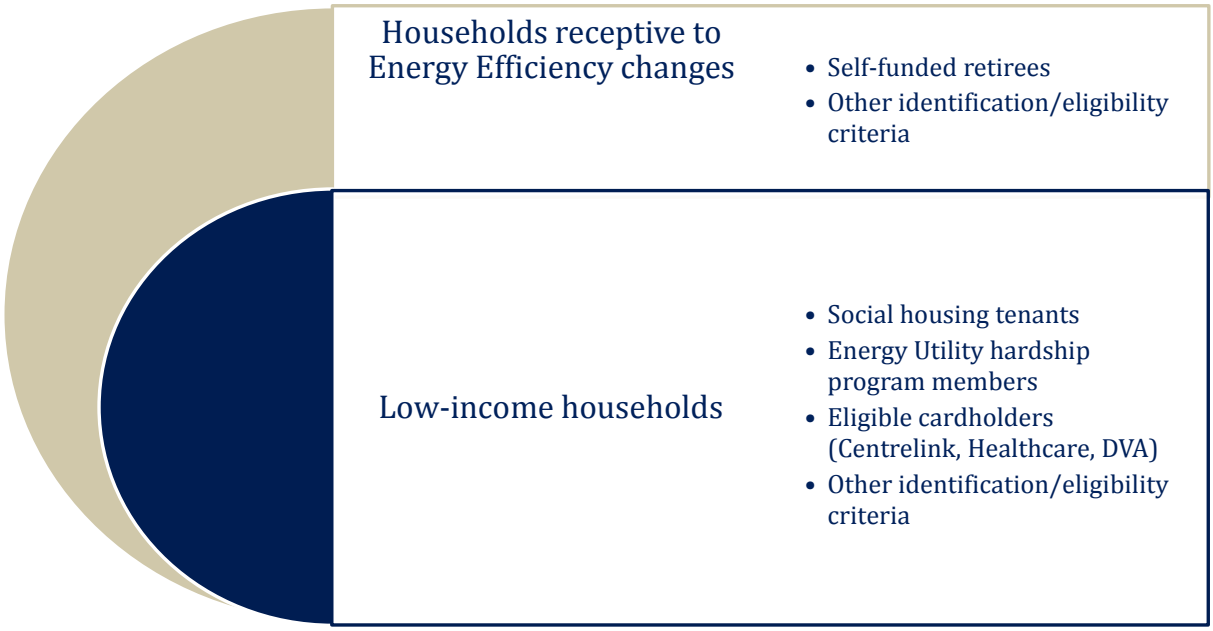
2. intelligibility and feasibility at the operational level.

While clear eligibility criteria are needed, flexibility is also required to enable the program to adapt to changing political or socioeconomic circumstances. In the case of the HPSP, if new eligibility criteria are defined, these should not add to the complexity of program delivery.

Experience to date, has identified some areas for further thinking about the eligibility criteria. Some households showed a great interest to the program, but fall outside of the eligibility criteria as it stands; for example self-funded retirees. These householders might, in seeing the value of the program, be ready to pay a limited fee to benefit from it. More willing participants may also be more likely to make significant changes to their energy use behaviour following the assessment.

One suggestion for future program development is to progressively extend the target group. While maintaining the core target population of low-income households, OEH may consider targeting additional groups just outside of the eligibility criteria with a slightly different model that may include financial contribution from participants. If this enlargement of the target group is progressive, rather like concentric circles around the core target, OEH should be able to take advantage of emerging opportunities to increase energy savings while keeping the program in line with the initial rationale. The figure below illustrates this approach by outlining a larger target group and indicating a need to establish appropriate criteria to identify them.

Figure 3-1. Concentric approach to target groups: potential for extension



3.1.3 Geographic allocation of the 220,000 assessments across 22 Postcode Clusters to support state-wide roll-out

As noted in section 1.2.3, the target of 220,000 assessments was initially broken down into 22 geographic areas—Postcode Clusters (PCC)—each with approximately the same number of assessments to ensure equitable distribution across NSW. Because OEH did not want a staged approach to program delivery, assessments had to be made available across NSW simultaneously. Some stakeholders are not aware of how and why PCCs were defined and target numbers allocated among them.

The main reason for the creation of PCCs was to create contract areas for the program. The tender for assessment services was split into 22 different contracts and it was expected that multiple contractors would be engaged. In practice, though, Fieldforce was the successful provider for all contract areas. Having one provider allows for easier contract management and has facilitated more consistent delivery of assessments across the NSW territory. However, contractual arrangements structured around PCC boundaries prevents flexibility in delivering assessments across PCCs as Fieldforce must reach specific monthly targets for each PCC.

3.2 A two-year development phase helped to anticipate some but not all implementation challenges

3.2.1 Social research and three pilots helped to refine the program design

HPSP benefited from a two-year development phase, which helped to define the target population and provide an opportunity to trial different delivery and implementation models in three sites. A pilot phase is considered good practice to test a program design in the real world, but does not always occur.

Formative research was undertaken between October 2009 and January 2010 to profile the knowledge and attitudes of the target group(s) using focus groups and a survey. OEH already had expertise in energy efficiency, but lacked knowledge and understanding of the targeted low-income households. OEH used the survey findings to improve some aspects of the program design. For instance, the survey identified the initial name for the program, the Low Income Household Retrofit Program, as inappropriate because participants could be sensitive about being identified as low-income earners, and the name was changed to the Home Power Savings Program. Other findings helped to identify the main drivers for take-up—that it is free and that it aims to help people save money—which could be emphasised in promotion. The survey also identified barriers to take-up—a lack of knowledge and understanding of the reasons for change—which had to be tackled in the HPSP marketing strategy.

Pilots were conducted at three sites in 2008 and 2009 —Bathurst (164 participants), Orange (258 participants), and Western Sydney (1000 participants)—to inform further roll-out. As a proportion of the eligible population, the uptake in Orange and Bathurst

was very good, due, in particular, to the high number of Housing NSW tenants there. Additionally, it successfully engaged with the local community by contracting a local based community welfare organisation that recruited and trained unemployed people as well as local aboriginal assessors to conduct the assessments. Uptake was lower in Western Sydney and this was identified as due to the failure of the contractor hired to deliver the assessments.

Other very useful learnings came from the pilot and informed the design of the assessments. For instance, the initial assumptions about the energy-efficient items householders would already have proved somewhat wrong. They had more equipment than expected, including energy efficient items, like low-flow showerheads.

All the information collected from the pilot phase was very valuable and may have offered additional opportunities to refine program settings, for instance by putting more emphasis on engaging with local community and stakeholders to drive uptake.

3.2.2 External stakeholders welcomed the opportunity to be involved early in the program's development

External stakeholders from the social welfare sector were involved in the development of the program early on and were given the opportunity to contribute to the program design. A Stakeholder Advisory Group was created in 2009 and provided suggestions about ways to reach the target audience, the eligibility criteria, the kit items, the equipment covered by the assessment and the action plan. Social housing providers and community organisations expressed great satisfaction with this consultation process initiated by OEH. This allowed OEH to build relationships before the effective launch of the program, and enabled stakeholders to contribute to the design of program communication material, in some cases, even translating material into specific languages to target emerging communities.

3.2.3 The pilot phase contributed to the development of the IT platform and robust audit processes

Another key output of the development phase was the development of the IT system to support the delivery of assessments: the assessment tool used by assessors to record the information collected in the dwelling during the assessment and the overall reporting database to store this information, along with the information provided in the action plan (DEAS).

The assessment tool and DEAS are now key supporting tools for the program in that they provide assessors with a ready-to-use assessment software and the program with a comprehensive database to inform performance reporting. OEH is using DEAS data for regular monitoring of the program delivery in the form of monthly executive summaries. But innovative tools offer additional features that could contribute to add value to all this data in presenting it in a dynamic and interactive way. Appendix 6 provides an

example of a dashboard tool that presents assessment performance across PCCs on a map of New South Wales that can be made dynamic to follow the performance over months.

In addition, OEH planned for clear and robust audit processes (see section 5.1.2) to ensure accountability of contractors involved in the delivery of the program based on issues identified in previous government programs in this area, e.g. the Commonwealth Government insulation program. The development phase did not, however, establish an overall evaluation and monitoring strategy, which would have informed the program along the way.

3.2.4 Delivery mechanisms were not all precisely defined

While external stakeholders acknowledge the willingness and effort put into the design phase of the program, insufficient thought may have been invested in defining delivery mechanisms and anticipating operational issues, especially difficulties related to generating sufficient demand from the low-income sector. Targeting low-income households was a major novelty for OEH compared to other energy efficiency programs. Considering this, further analysis of operational issues may have been required. One stakeholder suggested it would have been beneficial to have a program design workshop at the beginning of the program to bring together all stakeholders involved in delivery to discuss potential program delivery issues.

Another way to deal with emerging issues during program roll-out is to allow room for flexibility so that delivery mechanisms can be refined to better tackle them, for example in regard to promotional activities. HPSP may have been too prescriptive in its initial phase, mainly because of issues with previous government-funded energy efficiency programs.

3.3 The choice of a single contractor and the pricing model have had significant implications for the program implementation

3.3.1 Overall value for money guided the choice of the contractor

The main reason OEH decided to contract out delivery of the program was that the market was considered mature enough to take on this kind of service delivery. OEH used an existing government contract to provide the HPSP kit. A specific tender process was designed by OEH and issued by the Department of Commerce for the delivery of assessment services. Value for money was a key evaluation criterion for selecting the successful tenderer. All 22 lots were designed similarly and put little weight on local dimensions, which paved the way to the nomination of a single contractor. Following a long tender process Fieldforce was selected as the successful contractor for the 22 contract areas based on a high score on price as well as non-price criteria.

The resulting contract reflected the focus on value for money: a lot of clauses ensure that assessments are delivered at the most competitive price. The pricing model for the delivery of assessments establishes clear settings for the payment of each assessment. It was expected that the contractor would include all costs required to generate as well as manage the assessments, but expectations regarding responsibility for demand generation were unclear. The pricing model turned out to be a strong limitation in mobilising assessors for program promotion, while they proved to be a key asset of the program in this area (see section 5.3). With its focus on the delivery of assessments, it did not allow for sufficient financial incentives for promotional activities. While the OEH tendering process was in line with public tendering requirements, the pricing structure set up in the request for tender could have reflected expectations in both areas—delivery of assessments as well as promotion of the program—so that it would have been able to evaluate whether the pricing model proposed by tenderers is realistic and in line with these expectations. In the end neither OEH nor Fieldforce did anticipate the challenges related to demand generation during the tender phase.

3.3.2 Program promotion and delivery of assessments were expected to occur simultaneously at the local level

The energy assessment services contract covers two important aspects of the program implementation: the local promotion of the program to the target audience and the actual delivery of assessments. This contract was intended to be very broad to give the contractor direct responsibility for promoting the program at the local level. OEH was expected to have a coordination role, especially with the external stakeholders involved in promotion, and the contractor to drive demand on the ground based suitable arrangements to reach the target audience in each PCC. Local presence was an implicit expectation of the contract, and having the responsibility for both local promotion and delivery of assessments was supposed to give the contractor more control in managing the demand.

But, because of the specific issues related to previous government programs in the environment area, additional limitations were introduced to the way the program could be promoted. OEH authorised only inbound communication activities so that eligible households would not receive cold calls. Based on their experience, though, Fieldforce suggested outbound communication, including active telemarketing, to increase the program's uptake. OEH and Fieldforce had to deal with these conflicting expectations during the initial phase of the program to identify an appropriate and effective way of promoting the program (see section 4.2.1).

3.4 Increased and specialised program staffing was required to support uptake

3.4.1 The HPSP team went through significant organisational change that led to loss of program knowledge and discontinuity in management

Between the development phase and the actual roll-out of the program, there were significant changes in HPSP staff. HPSP suffered from insufficient staffing at the beginning of the program's rollout and some staff turnover, which led to the loss of some program knowledge. When new staff joined the program they drafted their own program manual to clarify their understanding of the program.

The HPSP team had one permanent staff and four contractors during the development phase. It grew to seven temporary staff and three contractors in 2010/11. For the 2011/12 financial year, HPSP has eight temporary staff and six contractors. HPSP has had a new program manager since January 2011 and the HPSP contract manager has also changed once. All these changes impacted on the relationships with contractors, which also experienced some organisational changes, but remained quite stable at the management level. Having a single contractor in charge of energy assessments helped to ensure continuous knowledge of the program and challenges encountered during the delivery.

External stakeholders indicated that having a stable and properly resourced HPSP team, which occurred in the course of 2011, has had a positive impact.

3.4.2 Bringing in specialised staff in key areas helped to address the main challenges of the program design

The new manager's reorganisation of the HPSP team was intended to tackle the program's main weaknesses and to overcome initial challenges related to slow uptake. Additional staff were recruited in marketing and stakeholder liaison, and the extended HPSP team has been able to develop overarching strategies in these two areas to support the uptake of the program (see section 4.1). Contrary to the initial expectations, the HPSP team needed to support the program's promotion to increase uptake and ensure the target of 220,000 assessments could be met. This required the development of an appropriate marketing strategy and tools to communicate key messages and engage key stakeholders in a structured way, i.e. by differentiating marketing mix according to the characteristics of each target group and by mapping stakeholders. The program's adaptive and agile approach has been successful in dealing with emerging challenges.

3.5 HPSP is being implemented in a very dynamic context that may influence the program design

3.5.1 Kit items may change to adapt to the changing context

The HPSP Power Savings Kit offers energy efficiency items to all participants. However, tenants from social housing providers receive slightly different items because of specific requirements. For example, Housing NSW tenants were not offered a showerhead because they had already had these installed. Some other social housing providers asked that items that could damage paintwork be removed. These differences in distributed kit items may impact significantly on the energy savings to be generated by the program because the showerhead accounts for an important part of the potential savings (see section 7.1.3). Communication and relationships with participants that receive different kit items should be adapted to take this into account, for instance by acknowledging that expected savings may be lower and related more to behaviour change.

Kit items could also be changed over time to adapt to the changing context. Energy efficiency is a very dynamic area with constantly changing priorities, because of technological, institutional or economic changes. Hot water and insulation systems are, for instance, more and more relevant, while solar panels may be less promoted than previously. Considering these changes in the overall energy efficiency context, it is important to maintain some flexibility in the HPSP kit items to keep them as relevant as possible. Feedback from external stakeholders may help to identify opportunities for relevant changes. This already occurred when a thermometer was added to the kit to support one of the tips of the action plan about monitoring the temperature. Showerheads are still offered but appear to be less relevant because a high proportion of participants, even among non-social housing tenants, already have energy efficient showerheads (see section 5.4).

The kit items are only expected to help householders to make the first step towards energy efficient behaviour. Besides the budget for this program is limited and it is not expected to support all kinds of energy efficient retrofitting. HPSP can, however, provide useful advice and may promote other existing initiatives to help householders further, e.g. No Interest Loan Scheme or retailers' pro bono initiatives (see section 7.2.3 about potential synergies).

3.5.2 Other initiatives targeting low-income households are being developed at the Commonwealth level

Under the Clean Energy Legislative Package, which includes the carbon pricing mechanism, the Commonwealth Government has developed programs and initiatives supporting the implementation of the carbon tax, the distribution of household assistance and the promotion of energy efficiency initiatives. Two programs are specifically targeting low-income households and may have an impact on HPSP:

- The Low Income Energy Efficiency Program, a $100 million grant program
- The Home Energy Saver Scheme, which is still under development.

The relationship between HPSP and these programs is still under discussion, for example, whether they may be used as a new source of funding for HPSP or the extent to which findings from the implementation of HPSP may inform the design of the Commonwealth-funded programs. However, these new developments offer opportunities to refine the program, based on an understanding of its interaction with the Commonwealth-funded programs.

4. Program promotion

Having considered the strengths and weaknesses of the initial program design, the next two chapters assess the effectiveness of the two main streams supporting the program's delivery: marketing and communication and delivery of the assessments.

4.1 HPSP uptake initially suffered from the lack of an appropriate marketing strategy

4.1.1 To reach the targeted population, the program required an adaptive marketing mix based on the target group's characteristics

As highlighted in the previous chapter, the initial program design did not include a proper marketing strategy. While HPSP has a mass-volume target, it was expected that the program's intrinsic characteristics—being free and aimed at saving participants' money—would generate demand. The pilot in Bathurst and the start-up phase of the program confirmed this assumption because all participants were Housing NSW tenants, and reaching them did not require specific promotion efforts (see section 4.3.2). As one stakeholder said

> *It may have been smart to pick the low-hanging fruits first, but the program still lacked a longer term strategy.*

Initial marketing activities lacked an overall structure and direction; they were mainly opportunistic and reactive. Limited consideration was given to potential differences in terms of demographic characteristics between target groups in designing promotional activities.

As part of the development of an appropriate marketing strategy in mid-2011, OEH contracted an external study that segmented the overall HPSP low-income target group into various subgroups with different demographic characteristics. This study showed that seniors constituted an important proportion of eligible households and were particularly responsive to the program, while reaching younger single people or families would likely be more difficult. In terms of communication mechanisms, the study identified that prize draws, for instance, had been a particularly effective way to promote to the program. The HPSP magazine, on the other hand, had not had a big impact on participant engagement considering its cost, and it was suggested it should no longer be produced.

OEH used the study findings to design a marketing strategy that identifies the relevant marketing mix for the program overall and for each target group. This integrated approach should help OEH to leverage the impact of the different communication channels.

The next step would be to specify the relevant marketing mix in each PCC according to its composition. While mini-campaigns that began in late 2011 (see section 4.4.3) are intended to effectively target single or small groups of PCCs, these would benefit from a more explicit articulation of the PCC demographics and the appropriate marketing mix to reach the population. The program may also require specific marketing strategies to improve the uptake among particular populations, for example, Aboriginal households.

4.1.2 Responsibilities for promoting HPSP have been progressively clarified

In the first phase of the program, there was some confusion about responsibilities for marketing and promotion between OEH and the energy assessment contractor, Fieldforce. The contract identified Fieldforce as responsible for customer acquisition, but was less clear about broader responsibilities for promotion of the program. Following changes to OEH staffing as well as regular exchanges between both parties, responsibilities for demand generation have been progressively clarified and collaborative processes established. All stakeholders recognise that these processes have clearly improved over time.

In developing the HPSP marketing strategy, OEH worked on the overall strategy, which covers all communication channels (including stakeholder engagement) and takes into account target group characteristics. Fieldforce has also developed its own marketing plan to identify the right channels (letterbox drops, media, etc.) to encourage uptake of the program. Fieldforce discussed their plan with OEH, so that the two complement each other. OEH and Fieldforce have established a collaborative relationship so they are best placed to leverage the benefits of marketing activities each carries out.

4.1.3 There are opportunities for further synergies with other NSW energy efficiency programs

The NSW energy efficiency policy includes other programs with communication activities directed at households, and there are opportunities for the programs to capitalise on each other's communications. In particular, HPSP could use the communications activities of the Energy Efficiency Community Awareness Program (EECAP), which funds communications campaigns and education programs to promote energy-efficient behaviours among households. The EECAP's main component is the 'save power campaign' with the black balloons.

Links between HPSP and EECAP do exist; for instance, the HPSP grants to local councils received funding from EECAP and the action plan that HPSP participants receive after having an assessment mentions the number of 'black balloons' of carbon saved by particular actions. But, apart from references to HPSP on EECAP's 'Save Power' website or by EECAP educators, the programs do not have common communication activities. This may change as HPSP and EECAP started working together on a CALD strategy in early 2012.

In general, though, the NSW energy efficiency programs have been somewhat 'siloed', and there is room to develop further synergies and cooperation between them, either directly through common communications activities or indirectly through related activities, for instance, discussing a common approach to measuring the programs' impact on behaviour.

4.1.4 Other opportunities for synergies

Outside the NSW energy efficiency policy, other opportunities exist for coordination, for instance, with the new Commonwealth Government initiatives or with energy companies' communications to households. The latter approach, however, should be considered with great care because households perceive communications from energy companies differently to communications from government. Households expressed some distrust of energy companies during the focus groups conducted for HPSP in February 2012. If these companies' communications are used for HPSP, there needs to be a clear distinction between HPSP and energy company's messages.

4.2 Fieldforce contributed to local promotion within the limits of their contract

4.2.1 Outbound activities were excluded from the program's promotion

As explained in the previous chapter, there were some initial differences in expectations about how the program would be promoted. While OEH was opposed to outbound activities, Fieldforce, in their proposal for the contract, offered to use their significant telemarketing capacities to actively promote the program. In the end, the contract for service delivery only considered inbound communications to generate demand.

This meant Fieldforce had to develop alternative communication activities. The time required to establish effective communication channels in this framework may have contributed to delayed uptake of the program along with the initial lack of a marketing strategy. The program was, however, able to target Housing NSW tenants through an opt-out process (see section 4.3.2), which made it easier to gain participants.

Because some Housing NSW tenants may not realise that they are able to opt-out before being contacted by Fieldforce, this process may be considered as a form of outbound communication. It does, however, remain within the initial framework, which was designed to avoid promotion through door-knocking, and there may be further opportunities to promote the program more actively to eligible households. OEH and Fieldforce could jointly consider what these options of outbound activities might include.

4.2.2 Fieldforce developed specific communication material and activities

Fieldforce is promoting the program in different ways, including through stakeholders, but mainly through their workforce of assessors, who are all given HPSP communication materials. Fieldforce uses OEH communication materials as well as specific material it has developed, focusing on the free power saving kit or on potential savings on electricity costs. Material provided by OEH does target specific target groups like seniors or CALD groups with adapted images and language. In their communications, Fieldforce gives potential participants a range of ways to contact the program and register their interest.

Fieldforce marketing team supports assessors by trying to identify and share good practice. Toolbox exchanges are organised every three weeks, on average, to share good practices between assessors and to stay informed of any changes.

While mini-campaigns focused on two or three PCCs are now in place (see section 4.4.3), Fieldforce must still ensure that the program is available and promoted across the whole of NSW in line with the equity objective.

4.3 External stakeholders have proved to be very effective in generating demand

4.3.1 Strong relationships have been established with stakeholders to engage them as 'multipliers' to promote HPSP through their networks

External stakeholders have been involved in HPSP since the very first phase of the program. Since the effective launch of the program, this group has been consulted on issues including communication strategies and materials. External stakeholders expressed great satisfaction with the way this relationship has been built throughout the life of the program.

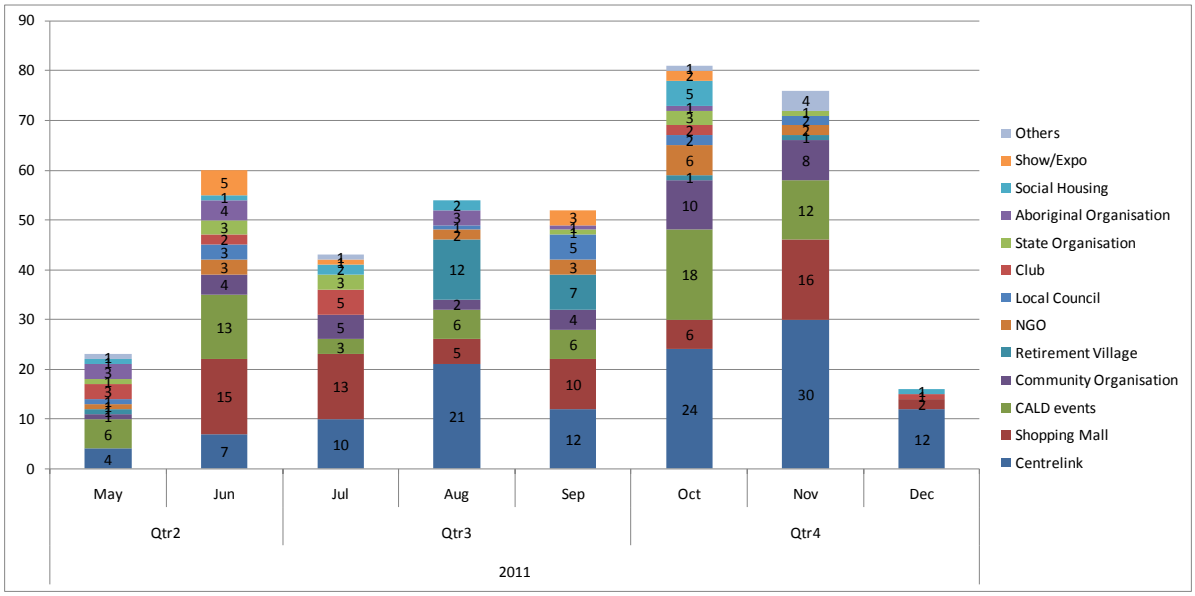
Similarly to marketing activities, stakeholder engagement benefitted from the increase to HPSP staffing in 2011. OEH has now also developed a stakeholder engagement strategy, which provides a tool for selecting external stakeholders to target and a guide on how best to use each to reach the program's intended target groups.

Fieldforce is also encouraging assessors to run their own events, which can provide a significant number of sign-ups for the program. Fieldforce tracks and shares these activities with OEH, which has responsibility for overall coordination of all stakeholder activities. OEH is responsible for relationships with key stakeholders, e.g. Housing NSW, Mission Australia, the Salvation Army, Energy retailers, and Fieldforce mainly engages with stakeholders at local level.

Engaging external stakeholders has many advantages. Firstly, they are a trusted source that can reach large numbers of eligible householders, and are well-placed to identify the right way to approach them, particularly hard-to-reach groups. Because low-income households may be reluctant to let people in or distrust government agencies, referrals from other organisations are an effective way of reaching them. Secondly, they are a very cost-effective communication channel. Stakeholders may not receive any funding but be willing to promote the program because they believe it is valuable or it furthers their own interests. For social housing providers, for instance, a more informed consumer would better understand their electricity bills, which, ultimately, would mean fewer complaints to the housing organisation.

The figure below gives an overview of the number and types of events promoting HPSP and organised through stakeholders from May to December 2011 according to the data available. Apart from December, a month in which there are specific reasons for lower promotion of the program,[6] the overall trend is an increasing number of events. Events held by Centrelink and in shopping malls made up the highest proportion of events organised in 2011. The overall range of events offers an effective mix of ways to reach potential target participants.

Figure 4-1. Number and type of events organised by stakeholders in 2011



Source: HPSP Stakeholders activities monitoring spreadsheet, March 2012

[6] Due to the Christmas period many organisations only hold Christmas events and felt the promotion of HPSP was not appropriate. Based on data from December 2010 people were not keen to book assessments at this period of the year due to other priorities.

4.3.2 Housing NSW is a key stakeholder, as the source of 51% of program participants to the end of 2011

Based on the eligibility criteria defined for HPSP, social housing tenants make up an important part of the target group. Housing NSW, as a government agency, and the largest housing provider in NSW has been a key referral source to the program. Housing NSW was strongly involved in the design phase of HPSP and expected to provide an important means of connecting with HPSP participants. To the end of 2011, 51%, or 37,467 out of 73,426 participants with an action plan being sent were Housing NSW tenants.

Key factors for the success of this partnership have been

- Housing NSW's early involvement in the design phase
- its interactive nature
- the existence of a specific unit dedicated to environment issues within Housing NSW.

Housing NSW and OEH developed an opt-out procedure for Housing NSW tenants. In practice, this has involved OEH sending a letter to the Housing NSW resident to explain the HPSP and give them the opportunity to call the OEH public line to opt out. Residents that don't call during the two week opt-out period remain on the contact list that OEH sends to Fieldforce to use to contact residents to arrange an assessment time. Housing NSW provided legal advice on feasibility and ethics.

While Housing NSW has been a major source of participants, on which the program has relied heavily in the initial phase, it is a finite source for demand acquisition and OEH had to find alternative ways to promote the program.

4.3.3 A range of other external stakeholders contributed to the program promotion in various ways

Social housing providers

OEH also engaged other social housing providers to promote the program to their tenants. To start, HPSP staff explained the program to key stakeholders in these organisations. Then, where possible, they agreed on a process, similar to that used with Housing NSW, to inform their tenants about the program and allow them time to opt-out. It was not always possible to put in place this opt-out process because some social housing organisations are only responsible for limited maintenance and repairs tasks, and a landlord rents out the property.

Local councils

Local councils, who were engaged from the beginning, have also promoted the HPSP. In mid-2011, a specific grant program was designed to support local communications; it offered up to $6,000 to around 40 local councils, particularly those in regional areas, to cover the costs of local events or media communications.

While it involves some costs to OEH, promoting HPSP through local councils is still very cost-effective because the program is able to make use of council facilities and capacity to reach local target groups. Local councils receiving grants may also contribute to the mini-campaigns.

Non-government organisations

OEH also set up another grant program to support the involvement of large NGOs. The funding model for the grants is based on payment for each new participant the NGO refers to HPSP, up to a maximum of $50,000 for each NGO. As at the beginning of 2012, this model has not yet produced significant results. In the case study in Batemans Bay, the officer from the local NGO had limited awareness about HPSP.

While not a substantial source of referrals to date, NGOs represent a great opportunity to promote the program because they are in contact with target groups on an everyday basis. The HPSP team should examine further mechanisms to enhance NGO engagement and make best use of their presence in communities in need.

Other organisations

Some community organisations, like the Local Community Services Association (LCSA), have also been involved since the design phase of the program. The LCSA, as an umbrella organisation, encourages its members to promote the program to eligible households through their usual communication channels: website, newsletters, conference, etc. This is an example of the multiplier effect HPSP may benefit from by working with peak bodies and large community organisations that can promote the program further through their network.

The Energy and Water Ombudsman of NSW (EWON) has also promoted the program. EWON was involved in the design of the program and took part in the Stakeholder Advisory Group. From EWON, around 85 staff (including an Aboriginal officer) have been trained to promote the program. These stakeholders have promoted the program in several ways: through stalls, forums, presentations to community organisations, leaflets in information packs, etc. EWON estimates they have held 15 events per month, with each reaching between 10 and 100 people.

4.4 Monitoring the impact of communication activities will contribute to progressive fine-tuning of the strategy

4.4.1 OEH and Fieldforce progressively developed monitoring systems to measure the impact of communication channels

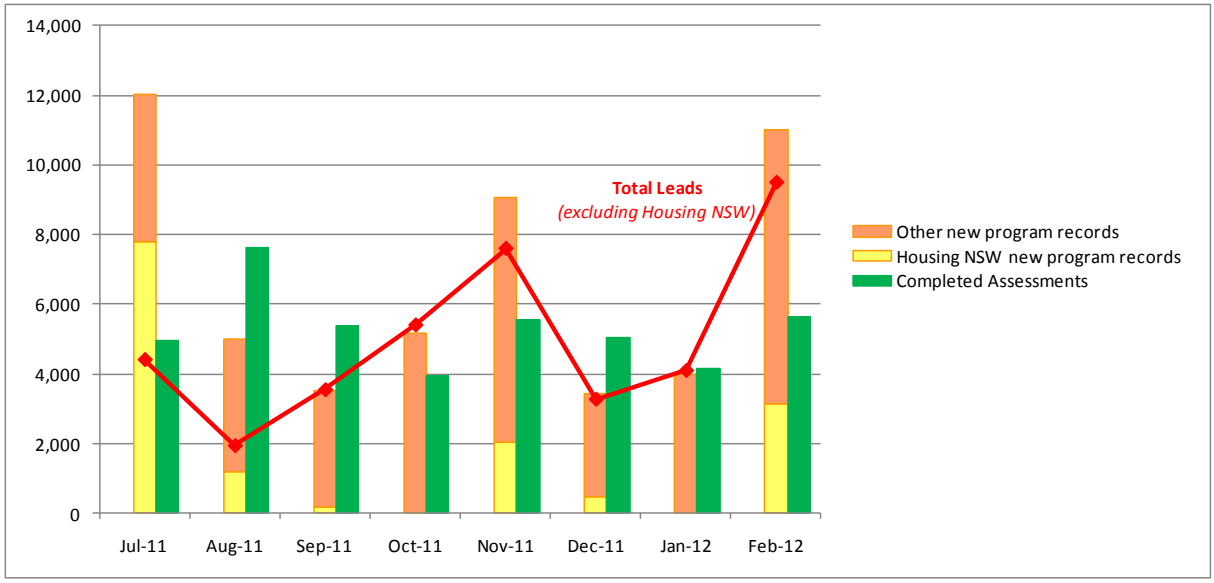
HPSP has several systems to measure and monitor the impact of the program's communication channels.

The program's assessment tool includes the question 'How did you hear about the program?' and responses are recorded in DEAS. But the information gathered through this process has some limitations; in particular, it allows only one answer (when participants may have heard about the program through multiple channels), and the types of communication channels included as response options have changed over time. Also the assessment occurs some time after the participant's first contact with the program, meaning they may not remember how they heard about the program or be able to give the most accurate answer.

Fieldforce call centre also records the communications channels leads come through, and OEH considers this data more accurate to measure the impact of communication activities. The HPSP team and Fieldforce have refined this monitoring system, so it captures all types of sources for referrals and to ensure consistency between the marketing strategy and monitoring systems.

The graph below gives an overview of the information collected through the Fieldforce call centre from July 2011 to February 2012. Initial leads i.e. referrals (in red, and excluding Housing NSW leads because they are not related to specific communication activities) produce program records (yellow for Housing NSW records and orange for other new program records) that are ultimately converted in completed assessments delivered (shown in green). There is a gap in time between leads and records and between records and completed assessments because of the time to schedule an assessment and the time between the delivery of the assessment and the action plan being sent. This means the increase in leads and records observed in February 2012—potentially as a consequence of mini-campaigns (see section 4.4.3)—may lead to an increase in assessments in the following months.

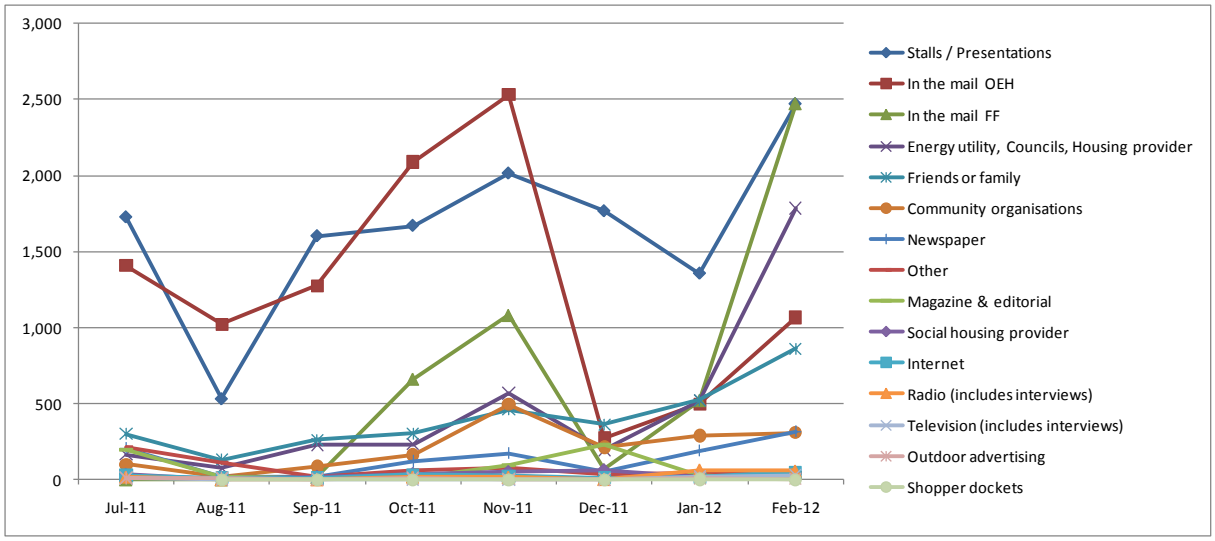
Figure 4-2. Number of leads, program records and assessments per month from July 2011 to February 2012



Source: HPSP Advertising Campaign Tracking based on call centre data, February 2012

Figure 4-3 below presents the breakdown of the total number of leads, excluding Housing NSW. This is the same as for leads displayed in the previous graph. It highlights that letter box drops and direct presentations such as stalls, have generated more leads than other channels, but this does not take account of the relative input (volume and costs) into different communication channels. Further information collected from assessors helps to refine this observation. For instance it appears that small local shopping centres work better than large ones, like Westfield, because they are a better fit for accessing the HPSP target population. In Batemans Bay—a high performing area in terms of uptake, which was selected for a case study—67% of participants heard about the program from their local shopping centre, where the assessor's wife regularly held a stand specifically to promote HPSP. Face-to-face promotion may have been more successful, especially in overcoming negative perceptions about HPSP based on the failure of past government programs like the Commonwealth Government's Home Insulation Program.

Figure 4-3. Number of leads by communication channel from July 2011 to February 2012



Source: HPSP Advertising Campaign Tracking based on call centre data, February 2012

This data should be considered against the input into each communication channel (volume of activities) to assess the conversion rate i.e. proportion of communications actually converted into leads. While this might be easy to estimate for regular communication channels, like mailing or media, it would be more complicated to track all stakeholder activities that potentially contribute to leads. The HPSP team is in the process of developing a stakeholder relationship management tool, which will record stakeholder communication history.

Cost-effectiveness is also an important consideration. Cost compared to potential reach should be taken into account when defining the marketing mix. While letterbox drops can bring a large number of leads, they are very expensive. TV advertisements could be an effective way of reaching low-income households but costs would also be high; advertising through regional TV channels may be considered as a cheaper alternative.

4.4.2 Qualitative feedback provides insight into effective messages, drivers and barriers to participation

Improving communication activities requires an understanding of the drivers and barriers to participation in HPSP. For Housing NSW tenants that opted out, the main reasons mentioned were not wanting a 'stranger' in their house and thinking that they were already doing everything possible. Among program participants consulted for IAB desktop and on-site audits (quarter 4 2011), 84.97% reported their main purpose in participating in the program was to reduce their power bills.

Assessors are also a very valuable source of feedback about reasons for participating in the program, the potential drivers that communication activities could further focus on.

Assessor survey: Main reasons to join the program

Assessors were asked the open-ended question 'what do householders tell you is the main reason they joined the program?' Some were specific to the program (e.g. a desire for specific goods or services offered by the program), but others were external to the program (e.g. individual needs/ interests or social/ financial factors.

The two most common reasons given for choosing to participate were both financial: firstly, a desire to save money (12 responses) and, secondly, a need to reduce their power bill (9 responses). A third, less common influencing factor, which was specific to Housing NSW tenants, was the belief that the program was mandatory (2 responses). Individual interest factors included a desire for information, and concerns about rising electricity costs.

Program characteristics, also common reasons for participating, included a desire for free merchandise and/or free installation, positive recommendations from friends or neighbours, and an interest in specific items in the kit, such as the power board. These factors could be highlighted by assessors in future promotion.

Source: Assessor survey (n=27), November 2011

Assessors also had a broad range of suggestions for program promotion (see Figure 4-4 below), with several commenting that the program required more promotion overall. Some assessors felt that the promotion of the program has been insufficient.

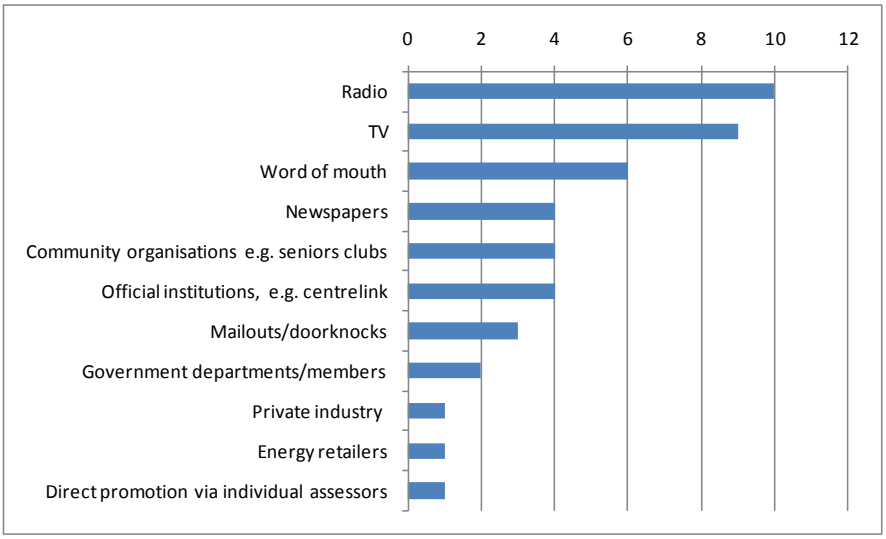
> *...many people ask how long has the program been going. When we tell them more than 1 year they are surprised and usually comment they've never heard of it.*

By far their most common suggestion was the need for increased promotion via media channels (TV, radio, Internet). The next most common suggestion was word-of-mouth; bilingual assessors particularly emphasised this approach for families from CALD backgrounds.

> *when someone they know personally tells them about the program, they are more likely to trust it.*

Other suggestions included promotion through official institutions, community organisations and third parties, as well as mail outs and doorknocking.

Figure 4-4. Assessors' feedback on suggested channels to promote the program



Source: Assessors survey (n=27), November 2011

Focus groups organised directly with householders provided further information on what works and what doesn't. In terms of communication, householders preferred direct channels like stands and local newspapers rather than mail; and word-of-mouth was considered most effective.

For these householders, the main drivers were financial, e.g. the 'bill shock' and the 'free stuff', while the main barriers were inertia or lack of awareness. Feedback through the focus groups also identified specific improvements to existing communication messages and materials: the eligibility criterion 'utility hardship customer' may not always be understood; material with 'Philomena' works much better than the 'Foxtel family'.

4.4.3 Results from mini-campaigns are encouraging

Since late 2011, the HPSP team has developed and implemented mini-campaigns, which concentrate communication activities on a limited area over a short timeframe. In a mini-campaign, all communication channels and stakeholder activities are mobilised on an area (comprising two or three PCCs) for a time-limited period. Mini-campaigns can generate a peak in demand, for which Fieldforce must be prepared to respond to with assessors available in the targeted areas.

The main rationale behind the mini-campaigns is that the message has to be repeated a number of times and through various channels to effectively target audiences. The theory is that multiple reminders from various sources increase awareness of the program and consequent leads. Recent results are encouraging; monitoring data should be used to further assess the impact of this strategy on program uptake.

5. Delivery of assessments

This chapter discusses the delivery of assessments within the HPSP contractual arrangements, covering the three components—the power savings kit, the home power assessment and the power savings action plan—and identifying what works well and what does not.

5.1 Developing good relationships and robust reporting processes between OEH and Fieldforce helped improve implementation

5.1.1 Building good relationships was key to effective delivery

Relationships between OEH and the program's energy assessment provider, Fieldforce, have improved significantly over time. While the allocation of responsibilities for the delivery of assessments was clear from the outset (unlike for marketing), working relationships had some initial difficulties. Nonetheless, relationships have progressively improved based on regular reporting processes and meetings, which allowed for discussion of emerging issues. While the process could potentially have been faster, both parties are now very pleased with the good communication that has been established, based on learnings from the initial difficulties. Both OEH and Fieldforce have had a role in making the program a success.

There are various examples of advanced collaboration between OEH and Fieldforce, especially in the development of IT systems and interfaces. Fieldforce has its own scheduling system—Automated Scheduling Allocation Program (ASAP)—that gathers data on households before information is collected through the assessment and recorded in DEAS. OEH and Fieldforce have been working on connecting both systems to ensure consistency between data collected and identify duplications.

5.1.2 Reporting and audit tools were put in place at the outset

Following the HPSP development phase, robust processes for audit and performance reporting were established to support implementation and ensure compliance with the contract for energy assessment services. Fieldforce submits monthly performance reports to OEH, providing information on the number of assessments booked or performed, customer satisfaction, enquiries and complaints. The reporting format changed in April 2011 to better align with the contract performance in Section 6.10 of the Statement of Requirement. Fieldforce is also conducting a monthly phone survey of over 100 participants to measure overall satisfaction with the assessments and kit items.

In addition, independent audits are provided on a quarterly basis by the Internal Audit Bureau (IAB) covering

- review of Fieldforce HPSP administration, management and compliance at its North Ryde offices
- desktop audit of a sample of household assessments
- on-site audit of a sample of household assessments.

IAB audits review the number and spread of assessments delivered against contractual targets. Other contractual requirements are also considered, for example, those related to the consent process, data collection and kit items.

Both Fieldforce and OEH have a complaints and compliments process with two different phone lines through which participants can give feedback about the program. This appears to be a duplication of processes from the participant's point of view that does not seem to be justified: one or the other should be enough while ensuring reliability as part of the audit plan. If OEH phone line appears to be more relevant to handle participants' feedback, then Fieldforce process should be either removed and merged into the customer satisfaction process or modified to achieve a clearly differentiated objective.

Overall, though, HPSP reporting and audit processes are a clear strength of the program, ensuring both accountability and documentation of HPSP key performance indicators.

5.2 Fieldforce manages the scheduling process with a view to ensuring the timely delivery of assessments

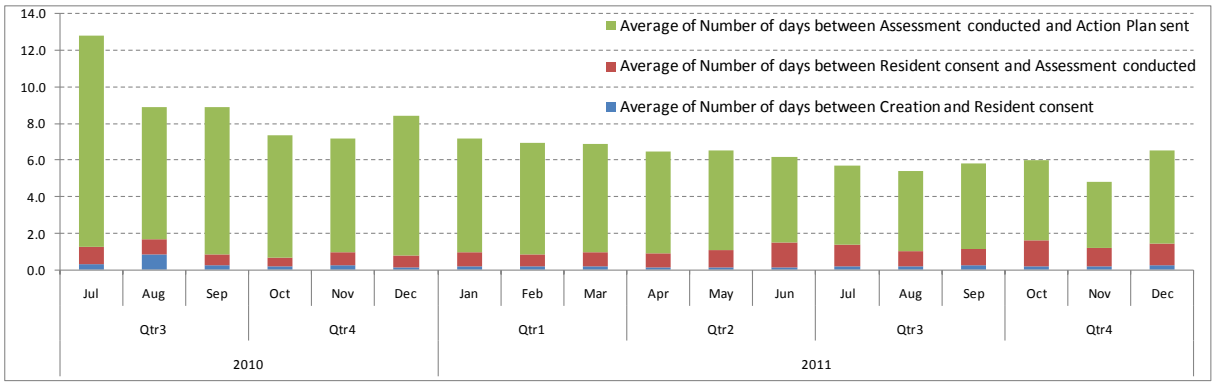
In delivering HPSP, Fieldforce uses its scheduling system (ASAP) and the staff skills they have used to deliver previous contracts. All bookings, regardless of the channel through which they were generated (including Housing NSW), have to be entered into ASAP through the call centre. Referrals generated directly by assessors through their own promotional activities are also going through the call centre to book a time for the assessment. This single entry point is intended to ensure consistency and avoid duplication of entries; while these may still occur, there are some system checks to help identify potential duplicates.

Two main contract requirements are behind the scheduling system: firstly making the program continuously available at all times across the state; and secondly providing the assessment and action plan within a specified timeframe of the initial contact. Assessments are expected to be delivered within six weeks of the initial registration. The contract also specifies that action plans should be delivered to participants within two weeks of the assessment.

Figure 5-1 below indicates the average number of days for each step in the delivery of assessments for the months from July 2010 to December 2011 (Figure 8.1 in Appendix 5

provides this information for each PCC over the whole period). Because the dates reflect data entry into DEAS, they are not always actual dates, for example, all steps may be recorded on the same day. On the whole, though, they are indicative of trends over time. The data shows the overall time from the creation of the participant record to the date the action plan is sent decreased from an average of 12.8 days in July 2010 to 6.5 days in December 2011. Most of this time is still related to the time between the date of the assessment and the date of the action plan is sent. This may also be related to better data accuracy for these steps than date of registration and consent because they are directly entered by the assessor following the assessment.

Figure 5-1. Evolution of average timeframes for the delivery of assessments



Source: DEAS, December 2011

While the overall trend is positive, Fieldforce has sometimes had difficulties keeping the delivery assessments within the six week period after registration. One outstanding assessment resulted in a Ministerial; and Fieldforce subsequently established a Preventative Action Plan (PRAP) to address registrations that have been outstanding for a long time. OEH acknowledged that the actions that have been put in place to follow-up on this issue have been effective. Of the 2,485 outstanding registrations as at 25 November 2011, 157 had been outstanding for more than six weeks. While this is a strong reduction from 1 September, when 588 assessments had been outstanding for more than six weeks, it is expected that challenges related to the assessor workforce (see the following section) will keep this issue on the agenda. OEH is monitoring the number of slots assessors have available to deliver assessments and slots available were below target at the beginning of 2012.

The main difficulty is keeping the program available across NSW at all times, particularly when dealing with sporadic requests in rural areas. Fieldforce is trying to manage the assessor workforce with a view to covering the whole state, for instance, by recruiting assessors that are flexible with working hours and location. Fieldforce also changed its internal system for allocating assessments to keep assessors busy as much as possible, especially when they expressed readiness to travel across the state as 'mobile assessors team'.

But it is difficult to have assessors available in every single area when needed, particularly as leads for the same area can come through at very different points in time.

Trying to deliver a number of assessments in the same area at the same time as much as possible is another way of dealing with this issue. Mini-campaigns should be helpful in this regard.

Once assessments are booked they are mostly delivered at the specified time, although there have been a few complaints about assessors not showing up. Overall, Fieldforce scheduling system can be considered as a strength of the program, supporting the timely delivery of assessments. Feedback from participants in focus groups indicates almost universal agreement that a phone call is the preferred method of making contact, especially compared to coupons.

5.3 Assessors are at the forefront and one of the main assets of the program and they require sufficient support

5.3.1 Resourcing HPSP with skilled assessors is a key success factor

The number, location and mobility of assessors are key factors to ensure the timely delivery of assessments and reduction of the waiting list. As at the end of December 2011, Fieldforce had 66 assessors, 8 of whom are plumbers. While plumbers are crucial for households in which wall-mounted showerheads need to be installed,[7] this has not been a major issue for the program so far because Housing NSW tenants, who have accounted for over half of the participants, did not require showerheads. While the number of assessments requiring plumbers may increase in the coming years as the program expands to other target groups, figures from assessments delivered to non-social housing dwellings to date show demand for these types of showerheads have been limited (see Table 5-1). There are various possible reasons for this: attention given to water savings may be lower than during drought years in NSW or participants may not be keen to have changes made to their dwelling by somebody other than their usual plumber. Another reason is that the certificates generated by the Energy Saving Scheme (ESS) may have saturated the market for showerheads in some areas, as identified in Batemans Bay.

[7] Plumbers are legally required under the Home Building Act for the installation of showerheads and tap aerators.

Table 5-1. Proportion of participants with showerheads (wall mounted) installed or left behind

Shower head – Wall mounted	Installed	Left behind
Housing NSW	0%	0%
Other social housing providers	4%	1%
Non-social housing	10%	1%

Source: DEAS, December 2011

Overall, this suggests recruiting plumbers—which has proved especially difficult because plumbers are used to being paid a lot more—should not be a major focus.

In practice, the main challenges for the program are maintaining the number of qualified assessors able to deliver assessments across NSW and to specific hard-to-reach target groups. After experiencing some difficulties delivering assessments to Aboriginal households, Fieldforce tried to organise block bookings for Aboriginal families in the same area. Another solution for delivering the program to these specific target groups would be to have separate arrangements for the delivery of assessments, for instance, though community organisations that would be interested in developing an assessor workforce. It is especially relevant as Aboriginal and emerging communities would generally be more receptive to assessors from their community or that speak their language. Separate arrangements could also be used to target rural areas that are particularly difficult to reach. In addition to improving delivery for specific target groups, this approach would contribute to longer-term capacity building in relevant community organisations. Fieldforce could contribute to the training of these additional assessors.

Apart from having the appropriate number of assessors available, maintaining assessors' skills and motivation at a high level is a key requirement for the successful implementation of HPSP. Future recruitment should focus on assessors' capabilities and willingness to contribute to the program. A lot of the assessors employed initially had been involved in the Green Loans program and were very passionate about their work. Fieldforce may face difficulties in finding qualified assessors with the same level of passion for the program's goals. Assessor training delivered by OEH (one day) and then Fieldforce (two days) is important to ensuring all assessors have a high level of skills; it may be reviewed with considering these challenges. Assessors are at the forefront of the program and its main asset and consequently should be provided with sufficient support.

5.3.2 Assessors deliver highly valued tailored assessments

The IAB report on desktop and on-site audit results for the last quarter of 2011 drew very positive conclusions about assessors' performance.

> *From desktop and onsite audits conducted of assessments performed within the 11 nominated PCCs, IAB concluded that generally Assessors have attempted to capture complete and accurate assessment results data for upload to DEAS and that Assessors have satisfactorily completed assessments.*

While remaining within the overall contractual requirements assessors deliver assessments in slightly different ways. Not all of them use the Powermate to measure power usage of appliances; all have been provided with this tool, but there is no obligation to use it. Assessors might also have different methods to deal with a household that has negative perceptions about the program. One of the assessors interviewed in Batemans Bay sometimes tries to involve the whole household to overcome this initial reluctance. Possible methods to address this issue are presented to assessors during the second day of training and are further discussed during toolbox exchanges.

The flexibility and autonomy given to assessors offer them the opportunity to the circumstances of each assessment. However it has also some drawbacks as the assessment experience may vary from household to household. Feedback from the case study and focus groups highlighted this risk. Participants expect assessors to spend the same amount of time, offer the same kit items when possible, and give the same advice on all assessments. Inconsistent delivery may significantly damage the perceived value of the program, which could affect word-of-mouth promotion of the program. IAB desktop and on-site audits are designed to identify such issues and should give more attention to consistency of assessments. One difficulty assessors might face is that assessments are limited to one hour, which is not always enough to present kit items, help with the installation of kit items if required, give advice on energy efficient behaviours and answer related questions (e.g. about energy bills). Participants may end up with different levels of advice depending on the amount of time given to each component.

Overall, the high level of participant satisfaction (see section 6.3) suggests assessors are offering a great service, dealing directly with participants' questions and potential resistance to change. In the remaining years of the program, OEH and Fieldforce should consider the make-up of assessor workforce with care and to make best use of them.

The following box describes the key role played by the assessor in the success of the program in Batemans bay.

Batemans Bay case study: the husband and wife assessors

In Batemans Bay, the local promotion and delivery of assessments for HPSP have been mainly managed by the so-called 'husband and wife team'.

According to them it takes two people to promote and deliver the program with approximately three full days of promotion and five days of delivery per week, and approximately five to eight assessments per day. The wife has focused on promotion, at a stand at a local shopping centre, and the husband has delivered the assessments. Both work long hours promoting and delivering the HPSP within the region. They manage their own diaries and waiting list separately to Fieldforce. While this poses a problem for OEH to monitor complaints, waiting list performance and assessor non-attendance, only three complaints have been recorded for the post code.

5.4 The number and type of kit items delivered varies among participants

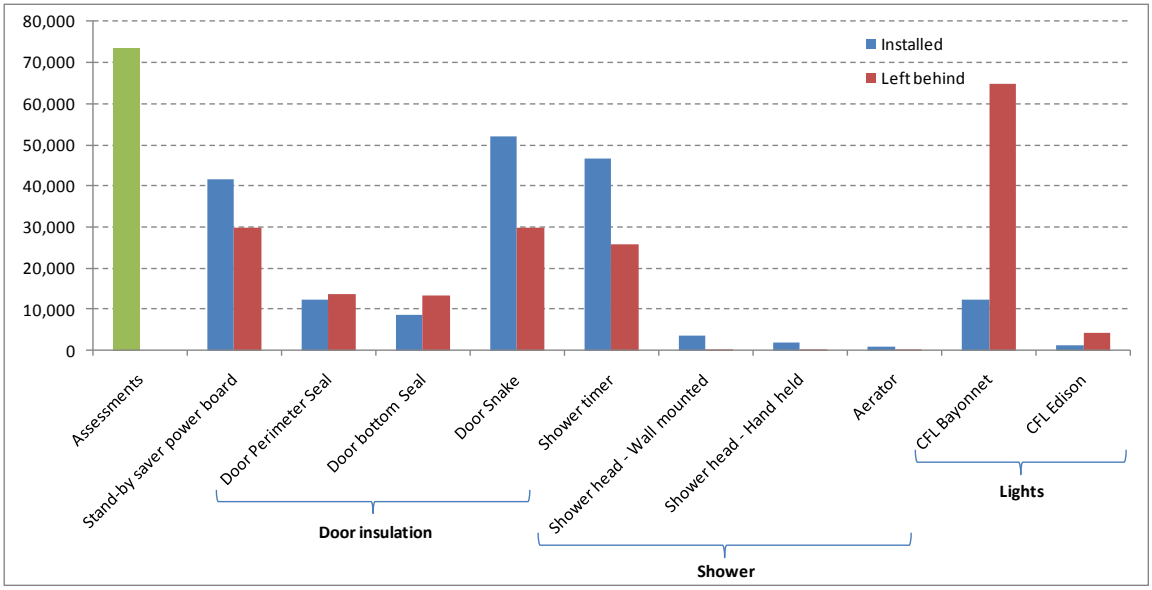
The main observable difference between assessments is related to the number of kit items delivered. The following graph (Figure 5-2) shows the number of participants that received (installed or left behind) each kit item. Because participants can receive more than one of each light type and more than one door snake, the total number of these items delivered may be higher than the total number of assessments. For example, one participant may have one door snake installed and one left behind, enabling the participant to be counted in the two categories. As highlighted above, the number of showerheads installed or left for the householder to have installed is very low, and this is not only related to the high proportion of social housing tenants (who did not require them).

There are other important differences in the number and type of kit items delivered. Four of the items appear to be in much higher demand than the others:

- Door snakes: 82,143
- CFL bayonet lights: 77,113
- Shower timer: 72,290
- Stand-by saver power board: 71,479

Less than 30,000 of other kit items have been delivered.

Figure 5-2. Number of households with kit items installed or left behind to end of 2011



Source: DEAS, December 2011

This information indicates the kind of items required in future kits. Apart from the shower timer, which is expected to support behaviour change (time spent in the shower), kit items related to the shower were not in high demand. The range of door insulation items and the stand-by saver power boards were more popular. There is still need for bayonet lights while other initiatives have already satisfied the demand for Edison lights. Without prior knowledge of this demand, the need for some kit items may have been over-estimated, impacting on stocking costs.

Looking at the distribution of kit items by household or dwelling characteristics helps to understand uptake and better forecast future demand. The data shows no strong differences between social and non-social housing dwellings, in demand for most items. Door bottom and perimeter seals were, however, taken up by more non-social housing tenants; door perimeter seals were installed for 31% and left behind for 33% of non-social housing households, compared to 3% and 5% of Housing NSW tenants[8], and 15% and 11% of tenants of other social housing providers. Non-social housing tenants are also keener to ask for the installation of CFL bayonet light bulbs. Further cross-analyses based on demographics or dwelling characteristics may bring other useful findings.

Because of the number of past and present initiatives in the energy efficiency area, householders are less receptive to items that have already received a lot of attention, like showerheads or CFL Edison light bulbs. But there is opportunity for HPSP to promote energy efficiency in other areas like power management and insulation through the provision of small equipment. Ultimately the findings about delivery of items should inform the composition of future kits (see section 3.5.1).

[8] Housing NSW tenants are not eligible for shower heads so should not have any item installed. OEH identified the error in the IT system causing these few entries in DEAS and corrected it.

6. Participant characteristics and satisfaction

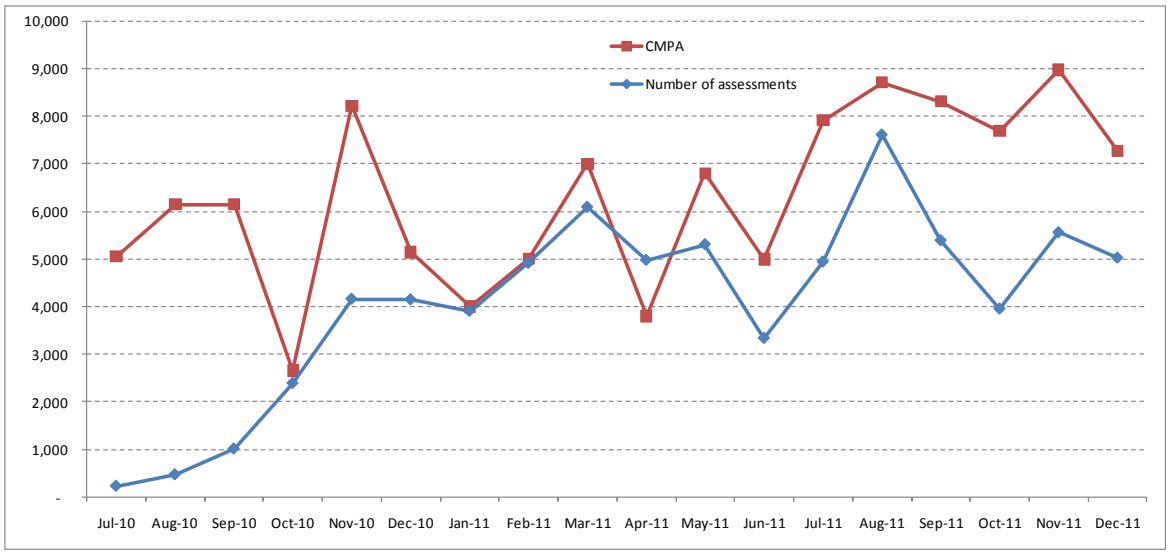
This chapter examines the program's reach up to the end of 2011 to identify what worked for whom in what circumstances. Identifying potential patterns among participants, success factors and barriers to effective delivery should contribute to the refinement of HPSP's participant strategy.

6.1 After a long take-up phase HPSP appears to be on track to reach its ambitious quantitative target by mid-2014

6.1.1 After one and a half years of operation, HPSP has reached one-third of its target

As at the end of December 2011, HPSP had reached 73,426 participants, which is exactly one-third of the overall 220,000 target. In initial stages slow take-up led to significant concern about reaching the target. As shown in the figure below, the number of assessments delivered per month has been far below the monthly targets in the Contract Maximum Permissible Assessments (CMPA). At the end of 2011, the delivery of assessments was below target; however, under *NSW 2021* the HPSP has been extended to June 2014. This allows more time to achieve the target and substantially decreases the program's monthly targets.

Figure 6-1. Number of assessments delivered (action plans sent) compared to monthy targets (CMPA)



Source: DEAS, December 2011

This change to the timeframe and the recent success of mini-campaigns suggest optimism that the program will reach the target.

Based on the latest figures available, the implementation of mini-campaigns, with promotional activities focused on specific PCCs, seems to have been successful in generating more leads for the program. In February 2012, 9,491 leads were generated (excluding Housing NSW tenants) compared to 4,101 for the month before. Data on leads by communication channel shows that intensified communication activities—especially letterbox drops—and focused stakeholder engagement activities associated with mini-campaigns accounted for a large proportion of the increase (see Figure 4-3). This improvement can also be indirectly related to better resourcing within the HPSP team and improved relationships between OEH and Fieldforce over the course of the program.

Considering this increase in uptake, additional attention should be given to the assessor workforce as pointed out in the previous chapter. Only 5,649 assessments were delivered in February. This means there are a large number of leads generated in February still to be delivered in the following months, and it will be important to have an adequate workforce of assessors to deliver them. To reach the overall target by July 2014, the HPSP team and partners should maintain promotional efforts to drive demand while ensuring a sufficient workforce is available to deliver requested assessments.

6.1.2 DEAS provides rich information about overall household characteristics

Based on the information collected through the assessment tool and available through DEAS it is possible to precisely identify the characteristics of HPSP participants in terms of location, demographics and dwelling characteristics. All this information is highly valuable to understanding who HPSP participants are, and to inform future promotion and follow-up activities.

Age groups

Overall, HPSP had a strong take-up among senior households: to the end of December 2011, 46% of participants were aged over 65 years and 18% between 55 and 64 years. These figures are broadly in line with the overall breakdown of eligible households, but participants with a Pensioner Concession Card are over-represented (see following table). On the contrary, holders of Centrelink Low Income Health Care cards are under-represented among HPSP participants. However, householders may hold several concession cards and only be recorded with the first one they reference.

Table 6-1. Distribution of eligible households and actual participants by eligibility card

Eligibility card	% Eligible	% actual to end of Dec 2011
Centrelink low income healthcare card	27.7%	8.5%
Centrelink pensioner concession card	66%	78.6%

Eligibility card	% Eligible	% actual to end of Dec 2011
DVA Concession card and repatriation health card	7%	1.6%
Energy retailer hardship customers	0.6%	0.1%
Social housing tenant	NA	9.3%
Total	100%	100%

Source: HPSP marketing strategy, June 2011 and DEAS, December 2011

HPSP stakeholders did not expect such a strong uptake among seniors, and early communications material for the program showed a family. Seniors' receptiveness to a program that could reduce their cost of living may be one contributing factor to the program's success among this cohort, but a more important one is likely that they, unlike many others, are available during working hours to receive the assessment.

CALD households

The HPSP 'equity objective' includes targeting CALD households, who to December 2011 made up 14% of program participants (identified as not speaking English at home). But there is no data on the proportion of the eligible population that are CALD to compare this with to objectively assess take-up.

From the available data, it is clear that some communities are more represented among participants than others. Among CALD participants, the most common languages were Arabic (2,464), Vietnamese (1,499) and Mandarin (1,108). According to an external stakeholder, the program worked best for English-speaking households and for more recent immigrants who despite the language barrier may be more open to this kind of initiative. Working through community organisations of more established migrant groups may help to reach this subgroup, e.g. through group activities for seniors.

Communications material only being available in a limited number of languages is certainly a barrier for some communities. The call centre used to register interest in the program is available in a lot of languages, but bilingual assessors cover only a limited number of languages: Mandarin, Vietnamese and Arabic. Even if some other languages, like Spanish as suggested by one stakeholder, should be offered, it is obviously not possible to have assessors in all languages. Community organisations may offer opportunities to engage with eligible households and/or to provide translation services. Aside from language there are some cultural barriers that may be harder to deal with: some communities may not be used to consent processes or women on their own may not be able to let men into their home.

Aboriginal households

The HPSP 'equity objective' also includes targeting Aboriginal households. To December 2011, Aboriginal households accounted for 4% of the assessments delivered. There is no

data on the proportion of the eligible population that are Aboriginal to compare this with to objectively assess take-up.

There was some qualitative feedback that reaching these groups can be difficult. There are opportunities to increase uptake of the program among Aboriginal communities by building strong relationships and identifying advocates to support promotion. Having an Aboriginal assessor could contribute significantly to gaining the confidence of these households, a key factor for those that may have been traumatised by past experience with government programs.

Dwelling characteristics

Over half (51%) of the assessments to the end of 2011 were delivered to Housing NSW tenants, another 2% were delivered to tenants of other social housing providers, and other households made up the remainder.

Dwellings to which assessments were delivered had the following characteristics:

- 73% have between one and two occupants
- 59% are average 2–3 bedroom houses (200–250 square metres), except in Sydney where 65% are studios or two-bedroom units
- 65% have Internet access
- 76% already had three-star showerheads
- 9% have a swimming pool and 6% a spa.

These findings contradict some initial expectations. The size of dwelling might be larger than expected, but is in line with the overall large size of Australian dwellings. The number of households with existing water-saving showerheads confirms that the need for showerheads may have been overestimated: even 71% of non-social housing tenants had three-star showerheads. It was also expected that an insufficient number of eligible households would have access to the Internet to use this medium to promote the program, but 65% of HPSP participants mentioned that they had access to the Internet and this could be used for future communications.

6.2 Identifying patterns across PCCs helps to understand the reasons for slow uptake

Looking regularly at the program's uptake across Postcode Clusters (PCCs) is a way to measure the impact of communication activities (see section 4.4.1), but also to identify potential drivers supporting uptake and barriers slowing it down.

High performing PCCs in terms of reach to the end of December 2011 (number of assessments delivered as a proportion of the target) are Sydney South West (69%), the

South Coast (60%) and Wollongong (54%). The three performing least well are Sydney North (10%), Sydney North Coast (14%) and Murray (19%). The respective demographic characteristics of PCCs should be considered to understand patterns underlying performance.

The successful uptake in Sydney South West and Wollongong may be explained by the high proportion of eligible households that were Housing NSW tenants in these areas, 25% and 21% respectively. However, Sydney City also has a high proportion of Housing NSW tenants among eligible participants (27%) but only 23% of the overall target for this area had been reached by the end of 2011. The South Coast has a very low level of Housing NSW eligible participants (8%) but a very good rate of uptake (60%).The high number of seniors may explain the successful uptake of the program on the South Coast, but it is not possible to identify a systematic pattern because badly performing areas like Sydney North Coast also have a high proportion of participants over 65.

Further factors need to be considered to explain slow uptake in some areas. HPSP stakeholders often explain the difficulties in Sydney North by the strong social mix (low-income households close to wealthy households), which makes it difficult to reach targeted households through the usual communication channels, like media or letterbox drops, that are difficult to target precisely. This may be similar in Sydney City, with a highly concentrated population making it difficult to reach low-income households. Another potential reason may be that householders are already offered a lot of environmental programs, through other institutions or corporations, leading to saturation or fatigue.

6.3 Most participants show a high level of satisfaction, especially with the kit and the assessment

6.3.1 Measuring participants' overall satisfaction

Participant satisfaction is regularly monitored as part of HPSP reporting and audit processes (see section 5.1.2). Fieldforce conducts a monthly post-assessment phone survey of 100 randomly selected participants to measure participants' satisfaction with administration and assessments. In December 2011, 100% of participants surveyed by Fieldforce were satisfied with the overall service; 95% said they were 'Extremely satisfied' and 5% that they were 'Satisfied' with the service. Six people made comments identifying areas for improvement: two related to insufficient time spent in the home and four suggested additional kit items, e.g. solar panels or light globes of different wattages.

IAB quarterly desktop and on-site audits also measure the satisfaction of a sample of households. Audit results for the last quarter of 2011 show that 148 of the 153 households sampled (96.73%) reported a positive customer experience with the program. There were five assessments (3.27%) for which householders rated their customer experience lower than 'Good'. When asked the reason for the low rating,

householders stated that either the assessor was too hurried or the assessor wasn't able to answer questions to their satisfaction.

6.3.2 Participants perceive kit items and assessments very positively

Despite the lack of further systematic collection of post-assessment data (see limitations of data collection methods in section 2.3.2) qualitative feedback provides insight into how participants experienced the various components of the program: the kit, the assessment and the action plan.

Participants are generally very pleased to get the kit because the items are free but also because it makes the idea of savings concrete to them. Over one-third (37.25%) of householders sampled in the IAB audits reported the power board was the most useful kit component (the next most useful was the door seal with 14.38%). On the other hand 22.88% of householders reported the shower timer was the item they could do without. 59.68% reported that there was no particular item they could do without.

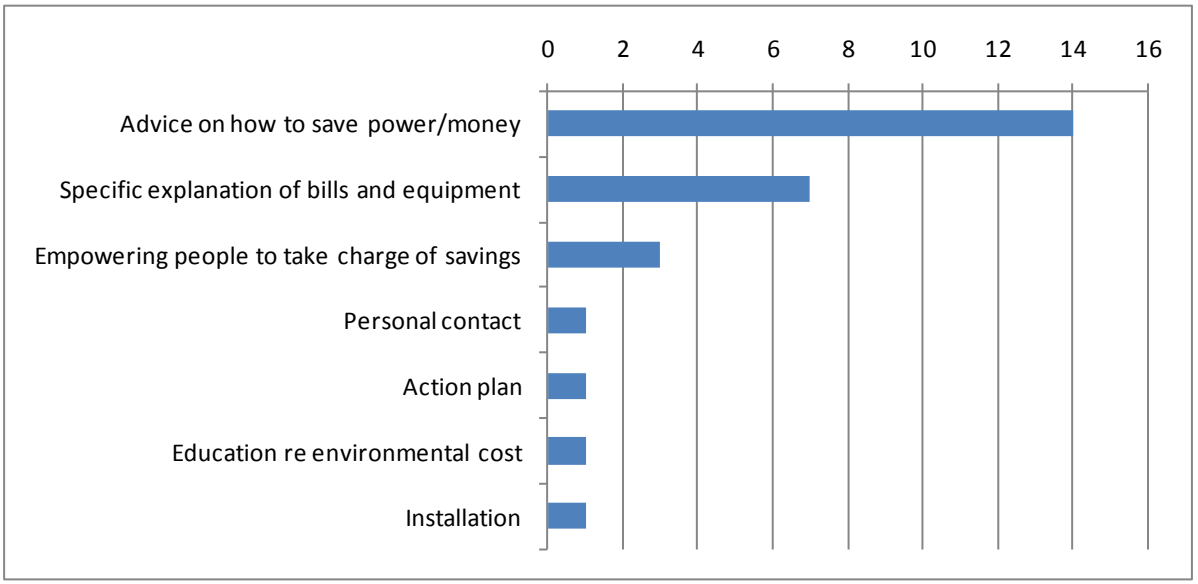
When the assessors' survey was conducted in November 2011, the 27 who responded expressed mixed opinions about the kit. Some made positive comments about specific kit items, with the power board, thermometer and shower timer most often complimented. Others made suggestions about potential changes to and/or additions to the kit, such as addressing compatibility issues between power boards and plasma TVs, and adding new items like plastic heat shrink-wrap and appliance fact sheets to provide advice on energy efficient use. Regardless of their own opinions about the kit, the overwhelming majority of assessors (21 responses) reported that householders were very impressed with, or appreciative of the kit, finding it useful and feeling that would save them money.

> *Householders are amazed [and] cannot believe it is for free!!! This feels like Christmas!!...they love it and are well impressed, seriously good responses.*

Overall, assessors reported that householders were very positive about the program. The assessors indicated the educational and financial benefits were the most important aspects of the program. The personal nature of visits and the empowering impact of learning new skills were also commonly noted (see Figure 6-2 below). In particular, there was a view that a key part of the program was about

> *giving people information so they can make informed decisions about running their house efficiently.*

Figure 6-2. Assessors' views on the most important aspect of the program



Source: Assessors survey (n=27), November 2011

Assessors also noted that, in addition to the general information they are supposed to provide as specified in the program guidelines, they frequently provided a diverse range of additional information, including explanations of technical concepts such as metering, how to use both new and existing equipment, useful websites on energy savings, and tips regarding government rebates.

Assessors reported that householders enjoyed learning new ways to save, understanding key concepts such as tariffs, and being given free merchandise and installation. Assessors reported being complimented most frequently for the clarity of their explanations, their open manner and the usefulness of the visit. They noted that the most common complaints were not about the program but about energy companies and energy costs and housing. Complaints about the program itself were mostly related to the timing of visits, the call centre or disappointment with the contents of the kit.

Stakeholders interviewed also highlighted that the program has a good mix of components to meet needs. According to stakeholders, providing tailored advice based on the households' appliances is the best way to raise awareness about energy efficiency among participants. Kit items reinforce that learning by helping householder make the first step towards reducing energy use.

Focus groups with households in February 2012 confirmed the overall positive feedback. They felt relaxed with the assessment done in their home, particularly because the appointment was scheduled in advance. Participants considered the assessment very useful and the assessor pleasant.

> *When the cost of energy is something that is always at the back of your mind, having someone come to your home and give you free advice about the ways that you can save energy (and therefore money) is very welcome and worthwhile.*

The only criticism expressed was that individual experiences with the assessment and kit provided or installed may vary between participants. This may be because for some items only some households are eligible, but participants were not aware of exclusions, so they felt that they missed out on something that would help them save energy.

6.3.3 Examples of householder experience

The case study in Batemans Bay provided the opportunity to meet directly with participants a few months after their assessment. The table below presents three cases that illustrate how participants experienced the program.

Several conclusions may be drawn from these experiences. First of all participants attach a lot of importance to savings actually generated as a consequence of their participation in the program; one household even quantified these precisely. This is why OEH should ensure that expected savings reported in the action plan are as realistic as possible, based on actual items provided during the assessment and on the feasibility of tips. Section 7.1.3 highlights the limitations of current savings estimates communicated to participants in the action plan. Low-income households may not be able to afford to implement some of the tips in the short term, e .g installing a solar hot water system. Such tips are listed mainly as information and are not included in the estimate of expected savings, but the action plan does not make this distinction sufficiently explicit to avoid any misunderstanding.

Another issue raised by one participant highlights potential inconsistencies between equipment provided through NSW energy efficiency programs.

Batemans Bay case study: participant experiences			
	The assessment	**The kit**	**The action plan**
Case 1: Single occupant, Housing NSW tenant, over 65 years	The assessor explained that her high power bill was due to a winter heater that was only purchased the previous year and sold to her through one of OEH's Save Power Retailer Program participants (also under the NSW energy efficiency policy). The assessor explained that this heater was one of the most expensive heaters to run through winter, and gave her tips on the best heater to purchase for her household. The assessor also explained the utility bill in detail, which was a big help.	The householder thought the power board was wonderful. Before the assessment she already had energy efficient light globes and door snakes She was very negative about the shower timer and she had already had a retrofit, through council, for low-flow showerhead before the assessment.	The participant claimed to have saved $247 on her utility bill and is still living comfortably. The householder has implemented the simple tips, e.g. turn lights off (although she mentioned that she has always done this). She did try to use her clothes dryer less, but she needs it because of her age and inability to get to the clothes line.
Case 2: 10 occupants, owner/ occupier, 45–54 years	The householder is unsure of the impact on their utility bill. They claimed that the assessor was only in the house for 10 minutes and that he did not install any items or use the Powermate.	The power board was installed by the householder's son. They think this was the best item. This household, due to the number of occupants and TV & sound equipment, probably would have benefited from another power board. This household also has a one-star showerhead, but the assessor did not offer the water-efficient showerhead or aerators as part of the kit. This household would have benefited from this installation. These two items were referred to in the top five action tips. They have now installed their own low-flow showerheads (three-star rating) in two bathrooms at their own	The action plan suggested that this household could save $217 and 71,500 black balloons of carbon pollution each year through the kit alone. However, the householder did not receive the shower timer that should have supported $132 in savings per year according to the action plan. The action plan says to switch to a solar hot water system (third top tip). But the householder said: 'Seriously?' This household would definitely not be able to afford such an expense without a rebate. The first and second top five tips on the action plan were to turn off the swimming pool pump and turn off the

Batemans Bay case study: participant experiences			
	The assessment	**The kit**	**The action plan**
		expense.	spa, but the householder claimed she was already doing this before receiving the assessment.
Case 3: 2 occupants, owner/ occupier, 55–64 years	No specific feedback	This householder thought the best part of the kit was the power board. This made a small difference to power bills. They already had energy-efficient light globes. The one door seal provided was not enough and the door snake was not useful—a double door snake would have been better. Something for the windows would also have been good. The household did have a showerhead retrofit years ago but the assessor did not mention that the household could have received an up-to-date showerhead.	The householder said that the action plan was not useful. The first top tip was to get a solar hot water system, which they could not afford. The householder did not believe the HPSP added any value to their household; the tips were general knowledge.

7. Costs and impacts on energy use

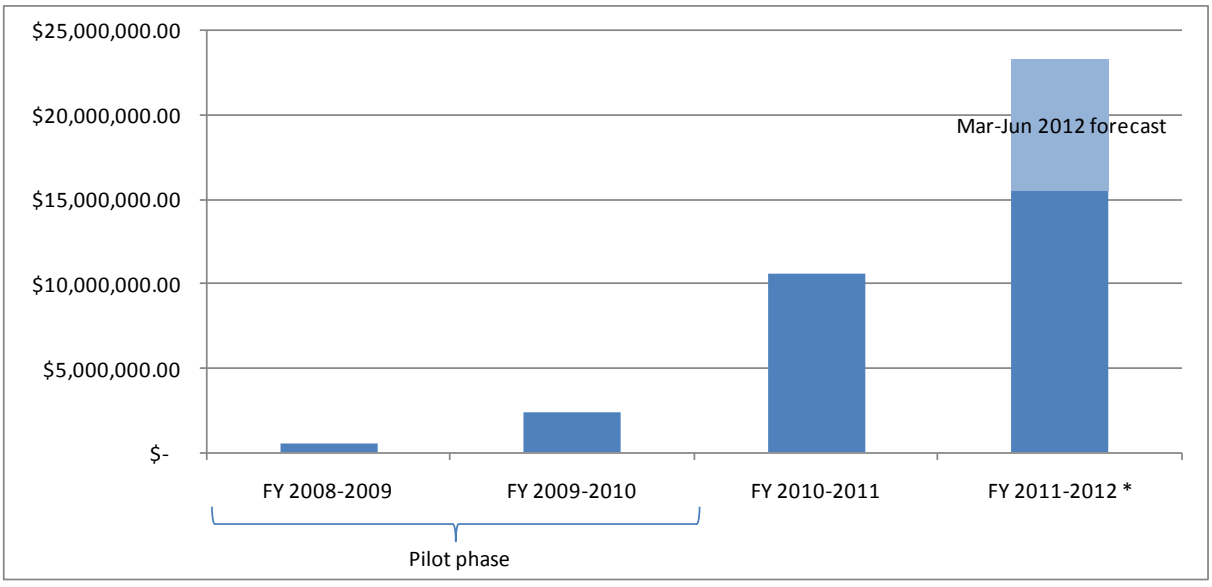
The HPSP has ambitious energy savings targets as part of the overall NSW energy efficiency policy. This chapter examines current data available on estimated savings compared with program costs to assess HPSP's cost-effectiveness. It also considers ways to enhance the impact and improve long-term outcomes.

7.1 Data available on energy savings and cost-effectiveness still present some uncertainties

7.1.1 Program costs are expected to remain lower than the initial budget

The HPSP was initially allocated a $63 million budget. Between July 2008 and the end of February 2012, $21,309,214 was spent. The two first financial years were dedicated to the development of the program and the three initial pilots. After the effective start of the program's implementation in mid-2010, annual costs increased significantly. Based on predictive data for March to June 2012 program costs will more than double (+121%) between 2010/11 and 2011/12.

Figure 7-1. HPSP expenses per financial year



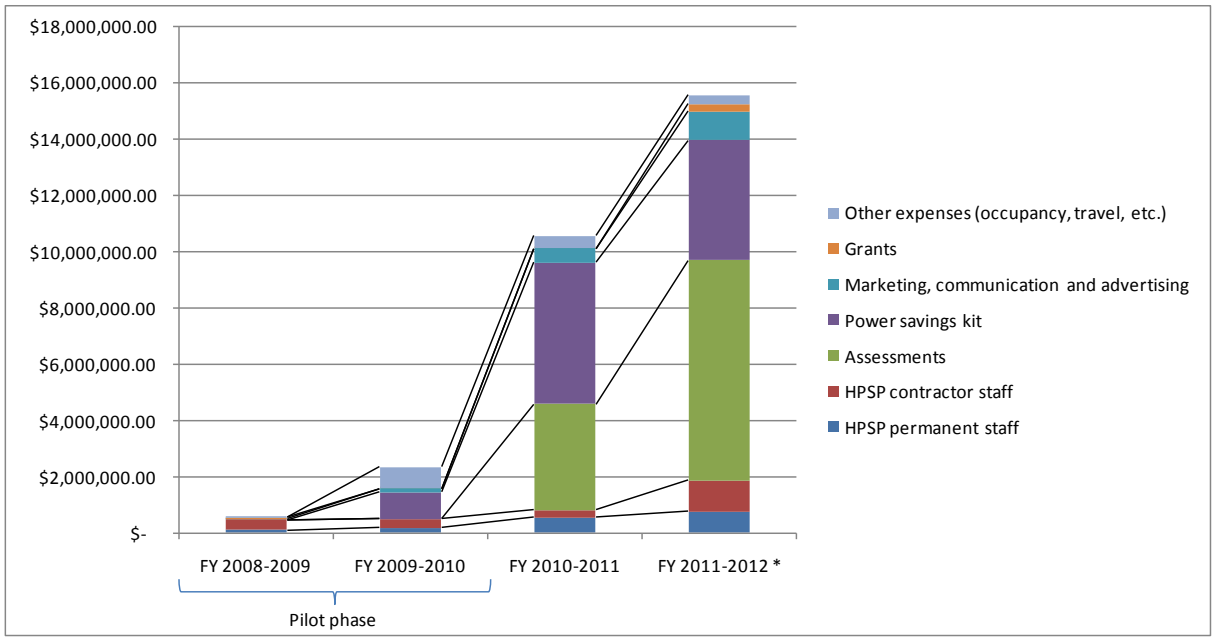
Source: HPSP budget reports for FY 2008/09, FY 2009/10, FY 2010/11 and FY 2011/12 (* forecasts for March to June 2012)

Two types of costs are considered within HPSP expenses:

- internal staff costs—salaries and related on-costs for HPSP permanent and contract staff
- external costs—mainly for the delivery of assessments by Fieldforce and the provision of kits by Blackwoods, but also for marketing and communication activities, grants and travel expenses.

The following graph presents the breakdown of actual funds spent (using forecasts for the four remaining months of 2011/12) since the beginning of the program, including the development phase.

Figure 7-2. Breakdown of actual HPSP expenses by financial year



Source: HPSP budget reports for FY 2008/09, FY 2009/10, FY 2010/11 and FY 2011/12 (* forecasts for March to June 2012)

The kits and the delivery of assessments constitute most of HPSP's overall costs, but their part in the total costs decreased significantly from 83% in 2010/11 to 52% in 2011/12. There has been a 15% decrease in the amount spent on kits while the costs of assessments doubled in line with the overall costs of the program. Costs that increased more than the overall program expenses (+121% between 2010/11 and 2011/12) were grants (+2,465%, from $10,000 to $256,503 with the creation of NGO and council grants in mid-2011) and internal HPSP contractor staff costs (+298%).

One stakeholder raised the question of how to determine the ideal spend on marketing, given the additional efforts required to support demand. Private companies often address this through a benchmark based on the proportion of overall budget spent on marketing-related activities in the same industry. However, business models can vary a lot from one company to another. For instance, Apple spends a much higher percentage of its budget on marketing than its competitors, but is more profitable. Because of

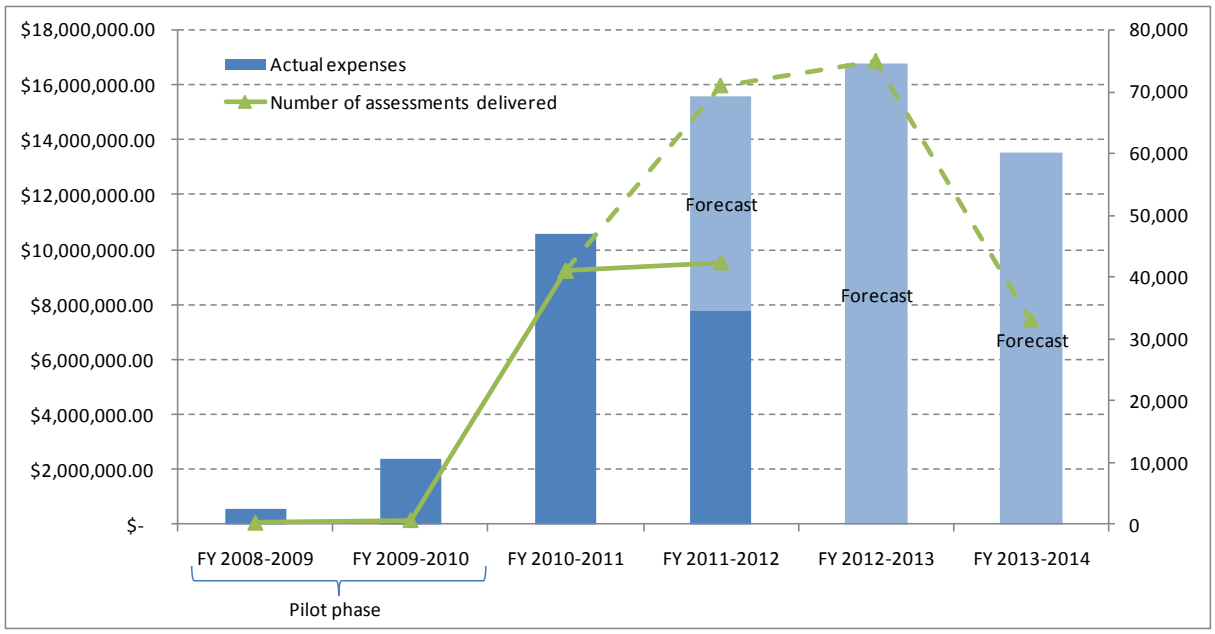
differences in business models, the best measure is impact on the business objective, i.e. profitability for private companies, and cost-effectiveness for public programs.

In the case of HPSP, the expenses spent on marketing, communication and advertising was 5% of the budget in 2010/11 and 4% in 2011/12. But some marketing costs are included under the budget line 'assessments' or HPSP staff costs as Fieldforce and some HPSP staff also contribute to marketing activities. In terms of HPSP's objectives, the appropriate level of marketing expenditure is the amount that enables the program to meet the 220,000 target and equity objectives most efficiently.

7.1.2 Program delivery has proven to be efficient: the current $253 cost per assessment is lower than expected

HPSP was initially designed with a budget per assessment of $286. In 2010/11 it was $258 and it has been $185 from July 2011 to February 2012 (see Figure 7-3). The current average cost per assessment over the whole period (from 2008, including the development phase to February 2012) is $253.

Figure 7-3. HPSP expenses and number of assessments delivered by financial year



Source: HPSP budget reports for FY 2008/09, FY 2009/10, FY 2010/11 and FY 2011/12; DEAS data and forecasts for completed assessments

According to budget forecasts, the final cost per assessment should be of $270. This highlights that the costs have been kept down through the attention paid to costs up front, especially through the initial tender for energy assessment services, and through close monitoring of the budget.

7.1.3 HPSP is expected to deliver 1MWh annual savings per assessment

Estimating actual energy savings is the necessary counterpart of cost analysis to determine HPSP's cost-effectiveness and to compare it to alternative benchmarks. Unfortunately, results from the billing data analysis, which should be able to isolate the impact of participation in HPSP by comparing matched pairs of households before and after participation in the program, were not available at the time of the evaluation. External factors like rising electricity prices may impact strongly on energy bills, but the billing data analysis is able to exclude those changes that impact on all households, participants and non-participants. However, it will not be able to identify the rebound effect of energy savings: HPSP participants may choose to use more energy through additional appliances, leading to increased comfort, but reduced savings.

Without the billing data analysis, the evaluation relied on OEH's estimate of deemed savings generated by assessments, based on calculations made through the assessment tool and reported in DEAS according to the distributed kit items, whether left behind or installed. OEH's calculation also considers the implementation of one behaviour change tip—'take shorter showers'—that the shower timer should support. The estimated savings in DEAS are those communicated to the participant in the action plan along with energy saving tips. However, OEH makes a more conservative estimate of saving; the main discounting factor is to halve the estimated savings from use of the shower timer, which made-up two-thirds of the estimated savings in DEAS.

The estimated savings are converted into tonnes of CO^2 equivalent (tCO2-e), megawatt-hours (MWh), kilolitres (Kl) and dollar savings according to fixed conversion factors. These calculations provide an estimated amount of energy saved annually per assessment, with the figures to end of December 2011 in the following table. .

Table 7-1. HPSP estimates for annual savings achieved

Completed assessments	Electricity	tCO2-e	Water	Annual bill
73,435	75.6 GWh	80,779	55.1 (ML)	$20.048 (M)
Average per assessment	1.03 (MWh)	1.10	0.75 (KL)	$273

Source: HPSP executive summary, December 2011

Considering the importance of the actual money saved for participants, it would be very useful to provide the most realistic estimate possible or to at least clearly identify different levels of savings according to changes implemented. This would counteract potential negative perceptions about 'false promises'. Therefore the action plan should reflect the same 'refined' estimate OEH uses internally. The process for calculating savings would also benefit from an external review to establish an updated robust and systematic process to be used for the rest of the program. Results of the billing data analysis may help to identify the extent to which the OEH internal estimate is in line

with actual savings observed by participants. Another refinement would be to change the assumption that kit items will all contribute to savings in the same way whether they have been installed or left behind; residents may be less likely to use items not installed.

Based on OEH estimates of annual savings each assessment is expected to deliver one megawatt-hour of energy savings per annum for an average cost of $270 per assessment (taking into account forecasted costs for the rest of the program). Comparing this with the $80 economic cost of new electricity supply per megawatt-hour—used as a benchmark during the development of the Energy Efficiency Strategy—HPSP should be able to provide a return on investment within four years.

7.1.4 The program does not provide an understanding of the behaviour changes related to cost savings

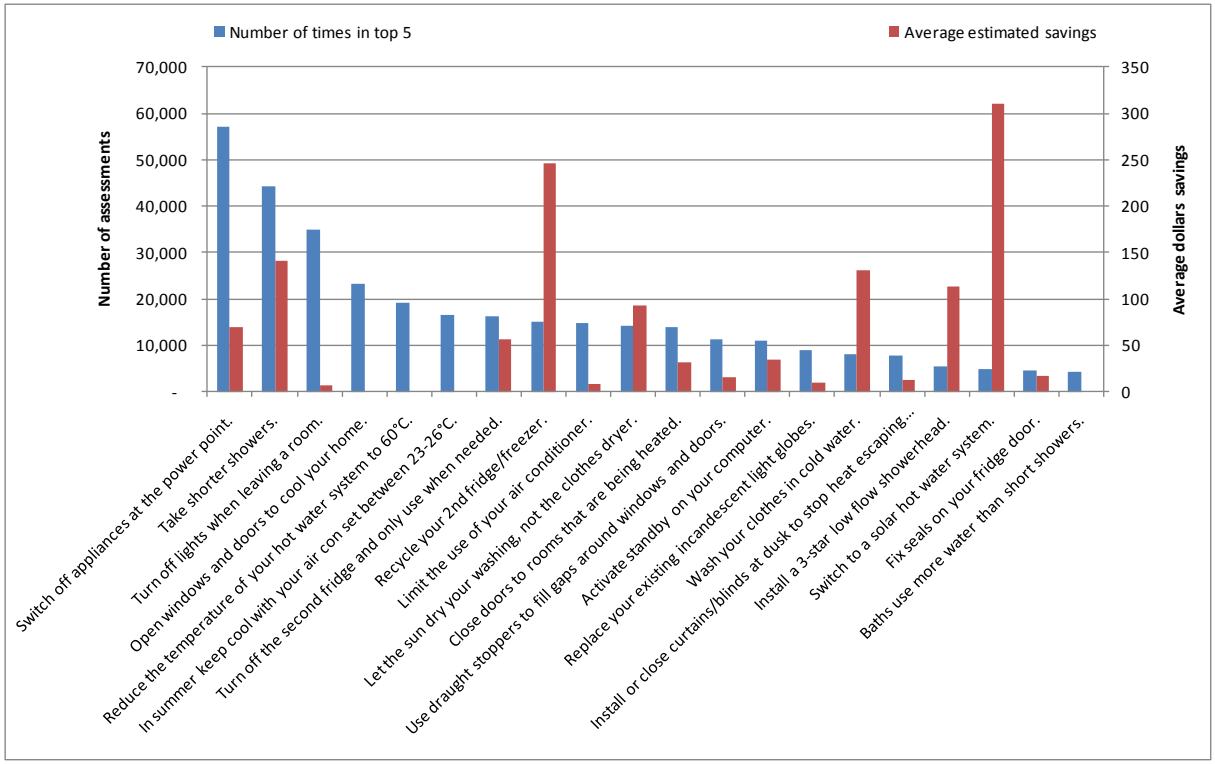
The only data currently available on savings is based on estimates or 'deemed savings'. Measurement of actual savings through billing data analysis would enable more robust conclusions to be drawn about HPSP's cost-effectiveness. It would also contribute to a more precise understanding of the contribution of each HPSP component to achieved savings through a regression modelling analysis. The initial rationale and message for the program was that participants could save 'up to 20% on their power use'; 10% from the kit items and 10% from the implementation of action plan tips. Actual measurement of savings as well as use of tips and behaviour change would provide evidence on the actual impact of the program.

Current estimates rely mainly on the predicted use of kit items, but behaviour change can have a very strong impact on energy savings. According to the American Council for an Energy-Efficient Economy (ACEEE), 30% or more of the energy savings that could potentially be realised through high-efficiency technologies are lost.[9]

The following graph presents the twenty tips most commonly included in the top five tips provided to participants in their tailored action plan. Based on their potential impact, each tip is attributed an indicative average amount of dollar savings when possible. But not all actions are mutually exclusive; some tips may be working toward the same savings.

[9] http://www.eesi.org/human-behavior-and-energy-use-18-nov-2009

Figure 7-4. Twenty tips most commonly included in the top five tips provided to participants and their estimated average savings



Source: DEAS, December 2011

HPSP does not have a systematic post-assessment participant survey to understand the extent to which participants are using kit items and implementing suggested tips. The only information available comes from the IAB quarterly desktop and on-site audits: four focus questions were introduced in the last quarter of 2011 about participants' experience and behaviour change. Of those questioned, 63.4% reported altering their power saving behaviour as a result of the assessment. The main change in behaviour reported was turning off appliances normally left on standby (78.35%); the second was turning off lights (28.9%). Turning off appliances is expected to produce an average saving of $70 per year.

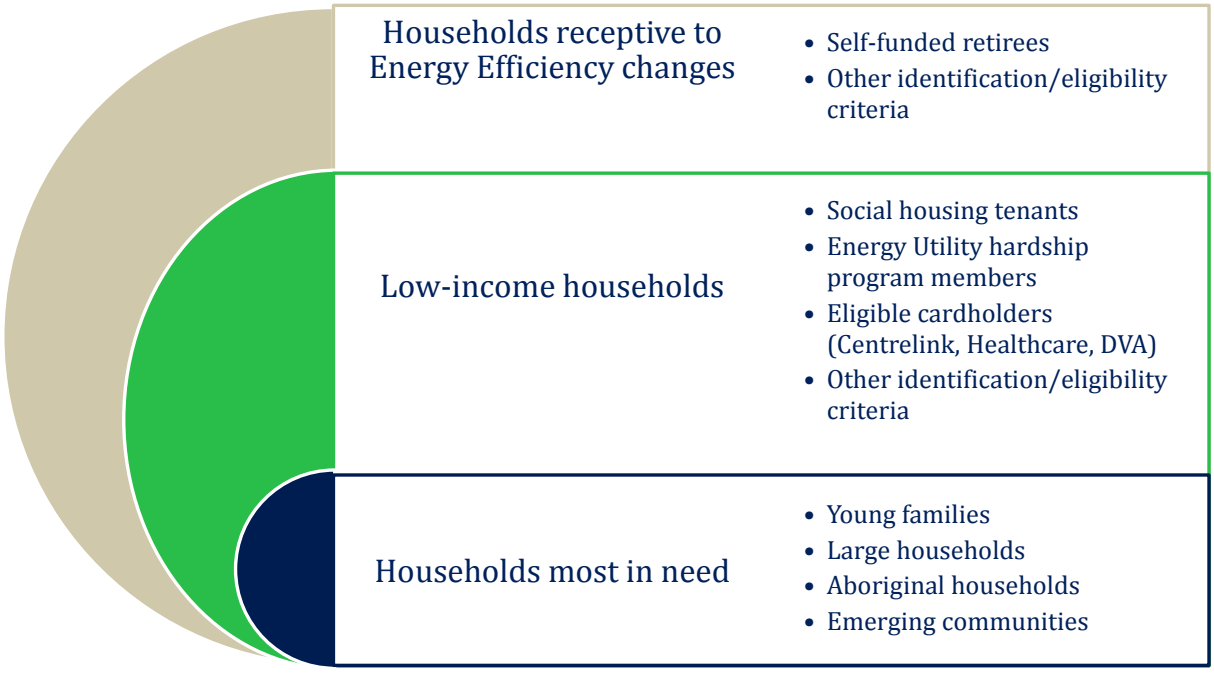
More regular monitoring of behaviour change would support the interpretation of actual savings recorded in billing data, identifying the potential contribution of behaviour change compared to kit items. A follow-up process might also help participants with sustained behaviour change (see section 7.2.2). Any additional after-participation measurement should be considered carefully so participants are not approached multiple times by different parts of the program—Fieldforce and IAB already have post-assessment contact with a sample of participants.

7.2 Opportunities exist to enhance the impact of HPSP

7.2.1 Focusing on eligible households that are most in need of support to save energy

To date, the focus has mainly been on achieving the target of 220,000 assessments, so promotion has been a priority. Some stakeholders suggested the program should now put a greater focus on the eligible households that are in most need but potentially more difficult to reach. Going back to the concentric figure representing HPSP target groups (Figure 3-1) this would mean adding a smaller circle within the current HPSP target with a view to putting greater effort into reaching these, as represented in Figure 7-5 below.

Figure 7-5. Concentric approach to target groups: focus on households most in need



Seniors are the biggest age group of HPSP participants, but they are often more frugal and already do a lot to save energy. The data collected during assessments shows a significantly higher proportion of participants over 55 years reporting that lights are always turned off once the last person leaves the house compared to other age groups: 71.5% of those over 55 years reported doing this, compared with 60.6% of those from other age groups. They are also more likely to switch off appliances at the power point after use: 18% of participants aged over 55 years reported doing this, compared with 13.1% of participants under 55 years.

Younger households and specific groups, such as large households, emerging communities or Aboriginal households, may be less likely to have developed energy

efficient behaviours. These households represent a lower proportion of the target group and may be more difficult to reach, and have received less attention to date, but they could provide higher potential gains in terms of behaviour change and energy savings. Thus, putting more efforts on these households showing greater need would help increase the program's impact on energy savings. There are some opportunities to improve the promotion and delivery of the program to these target groups, for instance (as mentioned in previous sections) through partnering with specific community organisations and training bilingual or Aboriginal assessors.

Another way to increase energy savings is offering additional kit items when needed. The current power saving kit may not be sufficient for large families. Assessors leave some kit items behind while some participants are not using items. Larger households may be keener to use them to save money. The CSIRO research project on 'Developing policy instruments for assessing energy efficiency in the residential sector'[10] identified a clear pattern of increase in energy consumption with an increase in the number of bedrooms in a dwelling. HPSP may take this into account by developing a specific offer with more kit items and focused advice for larger households.

7.2.2 Engaging participants in a continuous relationship could support sustained behaviour change

Motivating households to change their energy use behaviour is one of the objectives of HPSP. While focus has been on achieving uptake, since the start of 2012, the HPSP team has also been working on developing a strategy to engage participants in a continuous relationship. The objective of this strategy is to provide ongoing support to participants to tackle barriers preventing them from achieving expected energy savings, and to support them to sustain behaviour changes. The team is considering several information channels for this process, but the main one would be a digital interactive platform on a dedicated website. Considering that more than 60% of participants have Internet access (65.1% as at the end of December 2011), initial follow-up would be via e-mail. The website would provide access to practical help about how to best implement the action plan, further advice on energy saving actions and incentives. Creating a community, making use of the significant amount of data collected on HPSP participants, would also offer significant opportunities for further initiatives targeting low-income households, e.g. related to sustainable gardening or financial literacy. Reaching and engaging low-income households has proved to be more difficult than expected for HPSP. A substantial investment of resources has been required to connect with approximately one-quarter of low-income households in NSW; so it would be valuable to make the most of the connection established, beyond the scope of HPSP.

[10] This research is based on electricity and gas consumption data collected at the Census Collection District (CCD) level. CCD is a very fine geographic area (around 250 dwellings per CCD), much finer than the postcode or LGA. Data were provided by AusGrid (2006 and 2009), Essential Energy (2009), Endeavour Energy (2006 and 2009), and Jemena Gas Network (2006 & 2009). The data, combined, covers all of NSW.

OEH should carefully consider how to engage participants in a continuous relationship. . HPSP's participant engagement strategy may include the Internet as a key communication channel; however, it should be considered with care as it may not enable HPSP to effectively reach and engage all participants. Householders interviewed in focus groups indicated that they were not confident using computers or navigating the web. Some eligible householders may only have limited access to the Internet, meaning they wouldn't want to rely on it to answer their questions about energy savings.

The focus groups also highlighted individual barriers to behaviour change, which the strategy needs to deal with.

- Many are already doing what they can to save energy.
- Saving electricity can be seen as a trade-off with comfort, e.g. use of air-conditioning, clothes dryers, dishwashers, computers and TVs. The constant use of medical devices may also be a significant source of energy use that is unavoidable.
- Some behaviour changes are hard, such as having to turn switches off all the time, having to constantly remind their children, etc.

Finally the impact of behaviour change may not be noticeable because of external factors like rising electricity prices—higher energy prices mean bills are not necessarily reduced, so householders might think the changes they've made are not leading to savings.

The literature on behaviour change provides a useful framework to identify all possible levers to support sustained behaviour change. While most research is in the health area, it is still relevant for energy efficiency: changing inefficient energy use is similar in many ways to reducing unhealthy behaviours, like smoking. Changing equipment is a convenient first step to getting participants on track, but ensuring they change their use of energy in the long run requires further effort. The ecological perspective on behaviour emphasises the interaction between, and interdependence of, factors within and across three levels: intrapersonal, interpersonal and community.[11] Interpersonal and community interactions have a significant impact on individual behaviour. An example of interpersonal action may be to recruit successful participants as lead advocates and trusted sources to promote the program and behaviour change by word-of–mouth. Community organisations may also offer key support in this area by repeating HPSP tips on energy use so that they become sustainable habits for participants. The following table is an example of factors that HPSP may consider as part of a broader framework for ongoing engagement.

[11] US National Cancer Institute, Theory at a Glance – A Guide for Health Promotion Practice, 2005

Table 7-2. Behaviour change theories: the ecological perspective

Level	Factors	Definition
Intrapersonal level		Individual characteristics that influence behavior, such as knowledge, attitudes, beliefs, and personality traits.
Interpersonal level		Interpersonal processes and primary groups, including family, friends, and peers that provide social identity, support, and role definition.
Community level	Institutional Factors	Rules, regulations, policies, and informal structures, which may constrain or promote recommended behaviors.
	Community Factors	Social networks and norms, or standards, which exist as formal or informal among individuals, groups, and organisations.
	Public Policy	Local, state, and federal policies and laws that regulate or support energy efficient actions and practices.

Source: Theory at a Glance – A Guide for Health Promotion Practice, 2005

7.2.3 Improving synergies with other initiatives

Another way to enhance the impact of HPSP on energy savings would be to develop further synergies with existing initiatives in this area or to support the creation of new ones that show potential.

Other programs outside of the NSW energy efficiency policy that aim to help low-income households reduce their energy consumption and improve financial management skills include:

- the NSW Low Income Household rebate that assists eligible customers to pay their electricity bills
- the No Interest Loans Schemes run by community groups that helps low-income households to replace inefficient, high-energy-using appliances
- the Energy Accounts Payment Assistance scheme that assists customers who are facing unexpected financial distress. [12]

There are already some interactions and partnerships between HPSP and these programs, but HPSP could benefit from greater synergies with these kinds of initiatives for its remaining period. The program's first phase focused on supporting the take-up of the program, the second phase should put the emphasis on energy savings, making the best use of any synergies with other initiatives to increase impact. Establishing a follow-up relationship with participants will provide opportunities to refer them to other initiatives that will further support their ability to save energy, e.g. replacing inefficient

[12] IPART, Changes in regulated electricity retail prices from 1 July 2011, June 2011

equipment like washing machines, and providing additional tools or support behaviour change.

HPSP may also inspire partners to establish new initiatives, which might lead to enhanced implementation of HPSP tips and increased savings achieved by participants.

7.2.4 Using evaluation to inform future directions

As discussed in section 3.2.3 the HPSP has an effective system for monitoring delivery and reach using the DEAS database. It currently provides monthly reports to inform future delivery and has the potential to be expanded, for example to provide dynamic dashboard reporting of performance against targets across the state.

The data recorded in DEAS provides one essential input for evaluating the wider impact of the program, and exploring barriers and future directions. The HPSP has an initial evaluation framework and evaluation questions developed in 2011 in conjunction with the Data and Evaluation Program under the Energy Efficiency Strategy. This was used to shape this 2012 evaluation. It will also frame the evaluation of the outcomes of the program including the patterns of changed behaviours and ultimately energy saving. OEH is trialling an innovative household billing data analysis method which will measure changes in household energy use.

Interventions to change energy use behaviours are a new field of public policy (compared with forty years of public health interventions in areas such as tobacco use, drug and alcohol use, obesity reduction). There is limited information about the best mix of different policy instruments or about what works for whom in what circumstances. At national and state levels there is a current high level of interest in the effectiveness of energy efficiency programs for the residential sector, including their scope to produce energy savings, synergies with other initiatives, and their impact on reducing energy costs particularly for low income households.

This has two implications for the HPSP. First the 2012 evaluation of the HPSP offers valuable information for the HPSP for refining delivery, and to the sector on lessons for establishing such programs. The evaluation report should be considered for wider dissemination. Second the HPSP is now a relatively well-embedded program that is being implemented effectively and is expected to continue to June 2014. Methods such as billing data analysis, behavioural change measures and local case studies should enable assessment of program outcomes. On this basis the HPSP warrants future evaluation to reach conclusions about its ultimate effectiveness, which should be an opportune and valuable input into the broader policy discussion.

8. Conclusion

From the initial policy brief in June 2008 to the end of December 2011, HPSP has been through a long journey, with changes made along the way to better fit circumstances and the target audience. The initial policy design was very broad and did not specify a clear strategic framework for a program that was unique in its objectives as well as in its size—with a budget of $63m—for OEH. As a consequence, two of the five years initially planned for delivery of energy efficiency assessments to 220,000 NSW low-income households were used to develop a more robust program design and run three pilots. The program has also an equity objective that is less explicit but has had significant implications for program delivery. This objective means not only reaching specific target groups (CALD and Aboriginal households), but also ensuring geographic equity of access by making the program available across all of NSW at all time.

In the development phase, OEH initiated what have proven to be some of the program's key strengths. These included involving external stakeholders from the beginning, paving the way for their strong engagement in the promotion of the program; developing comprehensive IT systems, such as the assessment tool and DEAS, to support the delivery of assessments; and establishing robust audit and reporting systems to ensure proper monitoring and accountability. The initial delivery model, however, did not properly cope with all of the challenges raised by the program implementation to meet the program objectives.

The main challenges faced in the initial stages of implementation were generating enough demand to reach the quantitative target and clarifying responsibilities for marketing and communication between OEH and Fieldforce. The HPSP team did not have the numbers and skills to fully support the promotion of the program in the initial phase. Increased staffing and improved processes with Fieldforce helped to leverage the promotional efforts of all stakeholders in the framework of a newly established marketing strategy.

Assessments are arranged by Fieldforce through an effective scheduling process and delivered by assessors in the field. Assessors are at the forefront and the main asset of the program; their skills and engagement are highly valuable. However, the original pricing model established through the tender process undervalues their key role in program promotion through lack of clear and sufficient incentives.

As at the end of 2011, HPSP has reached one-third of its final target. Now that the program has been extended for another year to June 2014 (in the context of *NSW 2021*) and with the success of the mini-campaigns that focus intensive promotion on a few PCCs for a limited timeframe, the program appears to be in reach of its ambitious target. Uptake in some PCCs has been more successful than others, but there is no clear pattern in the success factors that could be valid across NSW. Some PCCs with similar

characteristics perform differently. In this context, there is no one-fits-all approach: local promotional strategies must play a key role in successful uptake. These strategies should be designed according to the PCC's main features and challenges, for example, stalls in malls may work in PCCs with a high proportion of seniors and partnering with CALD community organisations is key for PCCs with a high proportion of CALD households.

Overall, participants are highly satisfied with the program, especially with the free kit items and the tailored assessments that help them to save energy. The main criticism from participants was that the action plan may not give a realistic view of the changes and savings they can achieve. Inconsistencies in the assessments and items delivered may also lead to negative perceptions and frustration when not properly justified.

Program costs are lower than budgeted with a predicted average cost per assessment of $270 compared with the $286 budgeted, reflecting the constant attention given to efficient program delivery. Results of billing data analysis were not available at the time of the evaluation so only predicted savings could be considered. Based on the estimated saving of 1MWh per assessment per year HPSP is expected to achieve a return on investment within four years when considering the $80 per MWh benchmark—economic cost of new electricity—used in the design phase of the NSW Energy Efficiency Strategy.

Areas for improvement were identified for each outcome level in the program logic. For the remaining years of operation, the focus should be on the ultimate outcomes to ensure that intended energy savings are achieved. Some opportunities were identified: focusing on households in most need and with the most significant potential to generate energy savings, supporting behaviour change through continuous support at the individual but also interpersonal and community level, and making use of synergies with other energy efficiency initiatives to leverage the impact on energy savings.

Appendix 1. Attributes of success

Based on the program logic the table below outlines for key outcomes the attributes of success (what the outcome would look like if it was being achieved). For each attribute the tables indicate performance information that could demonstrate this and available data sources or feasible methods for collecting data.

Table 8-1. HPSP attributes of success and examples of performance information

Attributes	***Examples of performance information***	***Possible data sources/methods***
1. Intended energy savings achieved for participating households		
Energy savings - are verified by billing data - in line with EES targets - are credible to key stakeholders - represent cost effective program expenditure Consumers experience and perceive reduced costs	Pre/post energy use and bills by household, by target groups, region Stakeholder views Program cost/ energy savings Consumer views by target groups, region	• Billing data analysis • Key stakeholder interviews • Cost effectiveness analysis • Focus groups of households • Pilot case study
2. Participating households make sustained changes in their energy use		
Households - develop and maintain ES behaviours including continued use of measures - become advocates for household ES	Consumer views and self-reported behaviour change, by target groups, region. In-depth descriptions of behaviour change, actions, issues for selected households	• FF phone survey • IAB audits • Focus groups of households • Pilot case study
3. Participating households have improved capacity for energy saving		
Households - are satisfied with package and find it credible and feasible - have intention to use measures and change behaviour - accessed ongoing advice/telephone support Any negative consequences resolved Positive change for all equity groups /regions	Consumer views by target groups, region In-depth descriptions of experience, attitudes, issues for selected households #,% households by target groups, region	• DEAS program database • Fieldforce performance report • FF phone survey • IAB audits • Focus groups of households • Pilot case study
4. People in low-income households agree to participate		
- Eligible households have positive view of offer and agree to assessment visit	Consumer views by target groups, region	• DEAS program database • Fieldforce performance reports

- Uptake reflects target groups and regions - Non-eligible households not signed up	#,% households by target groups, region Reasons for opt out x households Complaints x households	• Monitoring and audit data • Program manager interviews • Key stakeholders interviews • Housing Opt Out Data • Complaints registers
6. Marketing and communications reaches eligible households		
- Targets reached (numbers, types of households) by key channels - Media and marketing timely & effective (incl. EECAP) - Partners undertake agreed strategies (LG, Housing, NGOs)	#,% households by target groups, region	• Monitoring and audit data • Program manager interviews • Key stakeholder interviews
5. Package is delivered efficiently and effectively		
- Delivery targets met - Waiting times within standards - Households satisfied, low complaints - Quality of delivery verified by audits	#,% households by target groups, region	• DEAS program database • Fieldforce performance reports • Fieldforce phone survey • IAB audit reports
7. Suitable contractor(s) engaged		
- Contractor(s) have management and data systems in place - Appropriate workforce recruited and effectively trained - Contractor(s) have capacity to meet demand, quality and coverage - Audit program in place		• Monitoring and audit data • Program manager interviews • Key stakeholder interviews, especially with contractors
8. Appropriate program designed and resourced		
Messages, channels, tools, resources, kits, partners, operating guide (e.g. definitions of low income, eligibility criteria), arrangements for contract and review		• Program documents • Monitoring and audit data • Program manager interviews • Key stakeholder interviews

Appendix 2. Data collection methods

Analysis of secondary data

The evaluation was informed by a broad documentation and data review covering the following types (full list provided in Appendix 3):

- program documents, which set out the policy context, program strategy and contractual arrangements
- monitoring and audit data, collected regularly to monitor the effective delivery of the program
- assessors' surveys, which collect feedback from front-end staff about program implementation
- analysis from focus groups with households (conducted by Auspoll in January and February 2012)
- results from the billing data analysis project for HPSP
- costs data.

Program documents

The review and analysis of key program and policy documents provided information about how the program has evolved over time. It helped to inform findings about the appropriateness of program design and resourcing.

Monitoring and audit data

Various types of monitoring and audit data were made available to inform the evaluation:

- Fieldforce monthly performance reports and accompanying minutes, providing information on number of assessments performed, quality of assessments, enquiries and complaints
- call centre reports supplied by Fieldforce about monthly inbound calls and leads from communication channels (e.g. letterbox drop, stalls, media, etc.)
- Fieldforce phone survey of households to monitor the performance of assessors
- Fieldforce and OEH complaints register
- IAB quarterly audit reports:
  - compliance reports reviewing Fieldforce HPSP administration, management and compliance at its North Ryde offices
  - desktop and onsite reports of a sample of household assessments (deferred for the first quarter)

- Housing NSW opt-out data about reasons mentioned by Housing NSW tenants that called to opt out from HPSP
- Monthly executive summaries prepared by HPSP staff about the overall performance of the program
- Stakeholder activities monitoring spreadsheet, compiling data from mail-outs and stakeholders events (Centrelink, Councils, FCAN, LALCS, EAPA, NGOs, etc)

In addition, the DEECW Energy Assessment System (DEAS)—HPSP assessments' reporting tool—provided a range of information on each assessment delivered. This tool was developed by OEH (previously DECCW) before the program started based on the National Australian Built Environment Rating System (NABERS) an existing national environmental performance rating tool. DEAS stores the information collected through the assessment tool used by assessors and has reporting functionalities covering a range of information related to:

- the assessment (e.g. dates related to the consent process, assessment date)
- the assessor (e.g. plumber or not)
- the location (e.g. postcode, PCC)
- the eligibility criteria (e.g. eligibility card, social housing provider)
- the participant demographics (e.g. age, Aboriginal status, language spoken at home)
- the dwelling (e.g. number of occupants, size, Internet)
- information collected through the assessments and results.

We analysed DEAS data (to December 2011) to assess participation by location, age group, target group type (Aboriginal or CALD) or dwelling characteristics.

While available DEAS data covered the period to end of December 2011, communications data covered from July 2011 to February 2012 period because the communication monitoring tool was only recently developed.

Assessors' surveys

The HPSP team collected feedback from assessors on their experience and views on assessments through an online survey (Zoomerang) in November 2011. Of the program's 65 assessors, 27 took part in the survey.

Focus groups with households

OEH commissioned Auspoll to conduct focus groups with eligible households to measure the effectiveness of HPSP communication materials, identify barriers and motivators for program uptake and assess the level of understanding among target households of broader environmental issues. Seven focus groups were conducted in January and February 2012 across a mix of regional and urban locations in NSW as presented in the

table below. All groups comprised a mix of men and women, homeowners, renters and social housing residents. Some groups included CALD and Indigenous participants.

Table 8-2. Focus group allocation

	Metro (Sydney)	Regional NSW
Existing HPSP users		Coffs Harbour Lismore
Mix of HPSP users and non-users	Blacktown Liverpool Matraville	Dubbo Nowra
Total	3	4

Source: Auspoll final report on communications and householder attitudes towards HPSP

Billing data analysis

OEH has contracted the Institute for Sustainable Futures (ISF) to conduct a billing data pilot study, which commenced in mid-2011 and is expected to produce a preliminary report by the end of the second quarter of 2012. This will provide a basis for estimating savings for wider household groups and further billing data analysis.

In May 2011, OEH reached agreement with Essential Energy (formerly Country Energy) to participate in the 'proof-of-concept' pilot study i.e. to use the energy company's data for a sample of customers. The study focused on data acquisition processes—particularly consent requirements—and aimed at refining analytical methods. Following the pilot, other retailers have also been contacted to contribute: Ausgrid has now agreed and Endeavour Energy is also expected to provide data to this study that should cover around 15,000 households.

Two methods will be used to measure savings through billing data:

1. analysing data for matched pairs of households with similar characteristics (an alternative to a control group method).

2. using regression modelling based on characteristics of HPSP assessments.

The first method has now been fully developed and the second will follow with a specific research protocol.

ISF will analyse and compare the two methods to measure the impact of HPSP on participants' bills. Results will be used to choose a preferred analysis method to be applied to all HPSP participants.

Costs data

Finally, we have used data about HPSP expenses for the financial years 2008/09, 2009/10, 2010/11 and 2011/12 to inform our cost-effectiveness analysis of the program. The analysis used actual costs for the first three financial years of operation and the eight first months of FY 2011/12; forecasts were considered for the four remaining months of FY 2011/12. Costs data covered various types of expenses:

- internal staff costs: permanent and temporary staff (contractors)
- external expenses:
  - assessments (Fieldforce)
  - power savings kit (Blackwoods)
  - marketing, communication and advertising
  - grants to NGOs and Councils
  - other expenses (occupancy, travel, etc).

New data collection

Stakeholder interviews

ARTD consultants interviewed HPSP program managers and key external stakeholders in February and March 2012. We completed 16 interviews of approximately one hour either face-to-face or over the phone.

These interviews offered the opportunity to discuss stakeholders' views on program design, delivery of assessments, participants' patterns, impacts and lessons learnt. Interviews were semi-structured to provide the opportunity to explore emerging topics in-depth.

Pilot case study

As part of this evaluation, ARTD assisted HPSP staff with the development of a pilot case study in Batemans Bay, a particularly high performing postcode in terms of household participation. HPSP collected and collated primary data, with advice from ARTD at each stage. Based on this experience, HPSP will be able to develop other regional or thematic case studies (e.g. housing estate, Aboriginal or CALD communities), including of unsuccessful operating areas or communities with low uptake, to inform future development of the program.

This case study also highlighted the need for further investigation of participants' feedback about the program, which should be a key area for future data collection in the comprehensive final evaluation.

Appendix 3. List of documents

Table 8-3. List of documents reviewed for the purpose of the evaluation

Document	Date
Program documents	
HPSP organisational chart	April 2011
NSW 2021 Plan and HPSP related goals	September 2011
Pilot study from Instinct & Reason about attitudes, drivers and barriers towards the program	December 2009
Contract documents for Energy Assessment Services	April 2010
Variations log to the contract for Energy Assessment Services	December 2011
The Think Partnership study for marketing strategy	June 2011
The Think Partnership study for stakeholders engagement strategy	June 2011
HPSP strategic marketing plan, including The Think Partnership proposal and Fieldforce marketing plan	October 2011
Fieldforce marketing plan	December 2011
Media planning brief and Mediacom response	October 2011
Scoping document for HPSP managers	December 2011
Program management manual	September 2011
Training material	January 2012
Relationship Management Plan	July 2010 June 2011
Program Member Strategy	February 2012
Eligible Customers and Funded Assessments by PC and PCC	September 2009
Monitoring and audit data	
Access to DEAS version (training version)	January 2012
Fieldforce monthly performance reports with accompanying minutes	December 2010 December 2011
Fieldforce phone survey (Dec 2010 and Dec 2011)	December 2010 December 2011
IAB audit reports: contractor compliance and desktop and onsite audits	October 2010 January 2012
Housing NSW Opt out data	November 2010 June 2011
Call centre statistics on inbound calls and leads	January 2012

'How did you hear about the program' statistics (DEAS)	January 2012
Communication activities monitoring spreadsheets	March 2012
OEH complaints register	May 2011 January 2012
Fieldforce complaints register	August 2010 November 2011
Internal monthly executive summaries	May 2011 December 2011
DEAS extract for completed assessments to end of 2011	December 2011
Evaluation Guide Council Promotion Grants	July 2011
Letter of agreement for grant contract with councils	August 2011
Stakeholders activities monitoring spreadsheet	March 2012
Assessors survey	
Data collected from assessors survey	Nov 2011
Focus groups with households	
Brief to conduct social research to evaluate the Home Power Savings Program's communications materials and householder's attitudes towards the Program	Nov 2011
Auspoll proposal	Dec 2011
Auspoll final report	Mar 2011
Cost-effectiveness	
Budget reports for FY 2008-2009, FY 2009-2010, FY 2010-2011 and FY 2011-2012	March 2012
Billing data analysis	
CSIRO research on Decision supporting information system for energy efficiency in NSW residential sector: brief	July 2010
CSIRO research Phase 1 report	February 2011
CSIRO research workshop	May 2011
CSIRO research Project update	September 2011
CSIRO research application on solar PV	October 2011
CSIRO research application on electric hot water systems	February 2012

Appendix 4. Stakeholder interview guide

Introduction

This interview is part of the interim evaluation of the Home Power Savings Program. It will inform our analyses, findings and recommendations along with all the other types of collected data (program documentation review, quantitative analysis on monitoring data, case studies, billing data analysis and cost-effectiveness analysis). Information used in the report will be de-identified so that it won't be possible to relate stakeholders to statements. Final report will be delivered in April 2012.

- What is the story of your involvement in the program?

Program design

- How do you consider the program settings, design and resourcing and the changes they went through?
- Do you identify any remaining barriers or difficulties?

Program delivery

- How effective has been the delivery of the assessments so far?
- What strengths and weaknesses do you identify?

Participants

- How satisfied are participants with the program? How are the assessments / the kit / the action plan perceived?
- What is the extent of uptake for different areas/target groups? What are the barriers to reach targets?
- What sort of household does it work particularly with (characteristics: demographics, stable, LT tenants, etc)?

Impacts: behaviour changes and energy savings

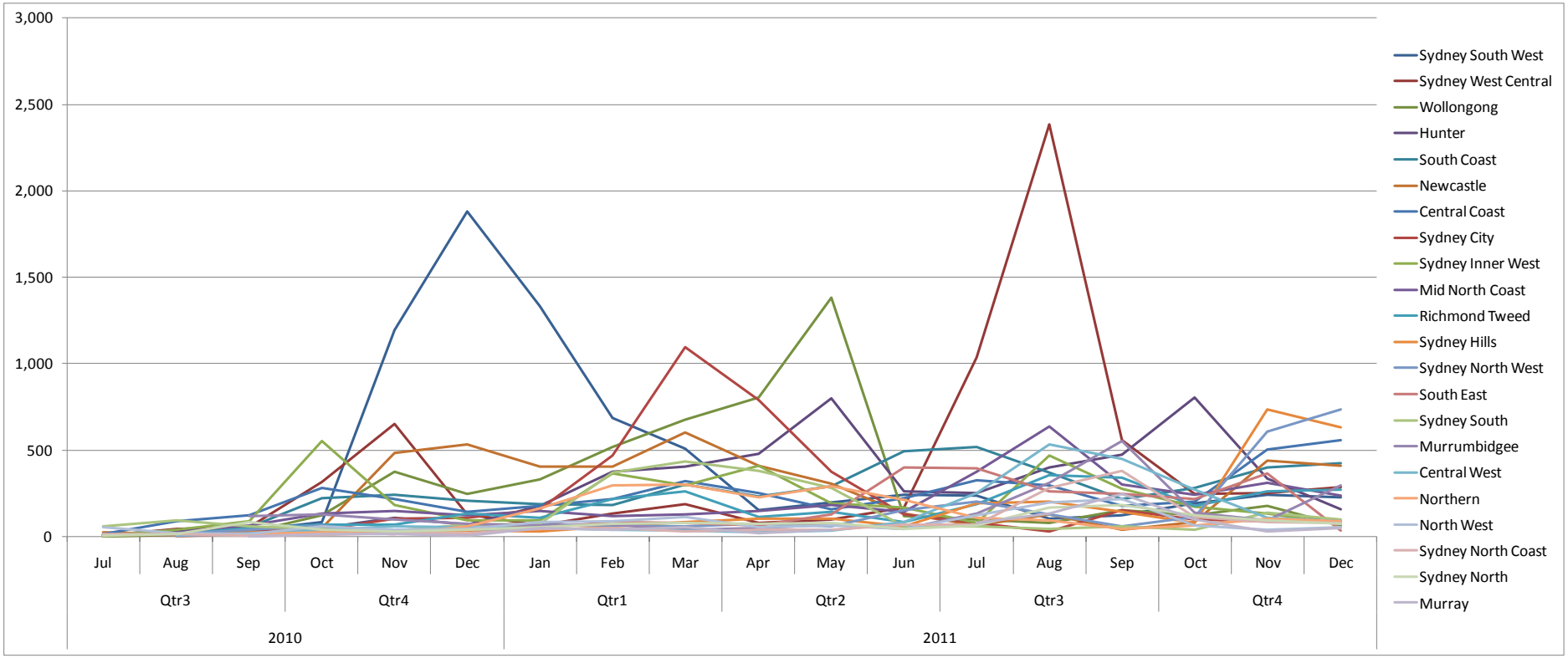
- To what extent is the program contributing to enhance participants' capacity for energy savings and promote effectively sustained behaviour change?
- What sort of evidence can you rely on to support this?

Lessons learnt

- What are the main lessons to date you can draw from the implementation of the program?
- If you had just one thing to change to the program, what would it be?

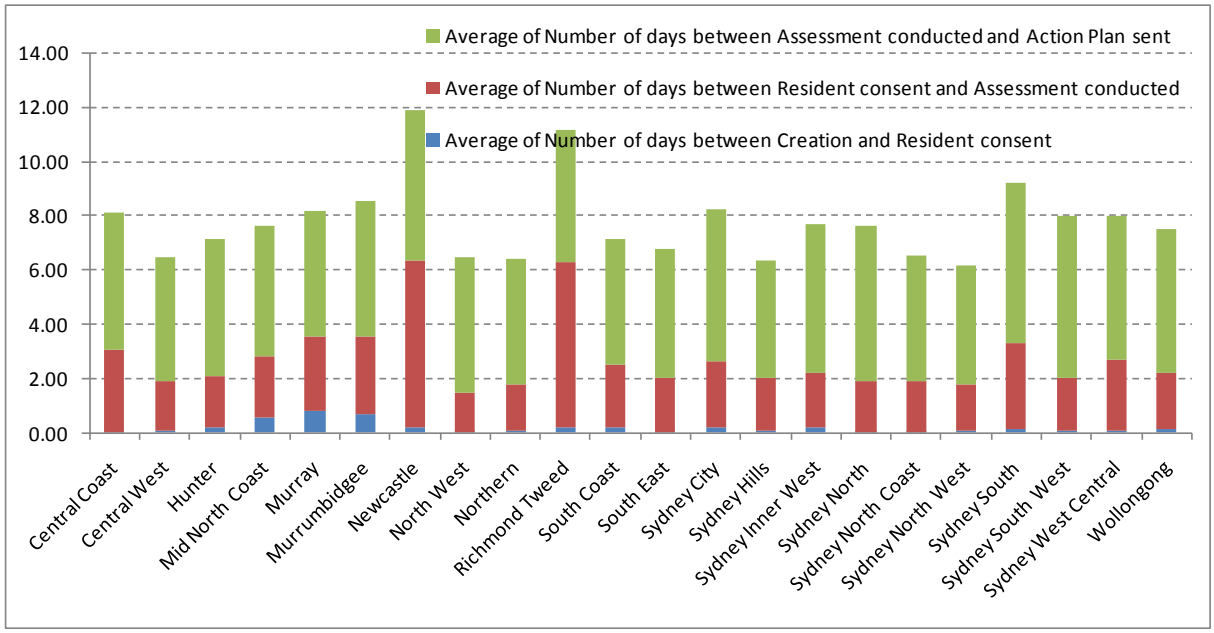
Appendix 5. Characteristics of assessments delivered to end of 2011 across PCC

Figure 8-1. Number of assessments delivered by PCC over time



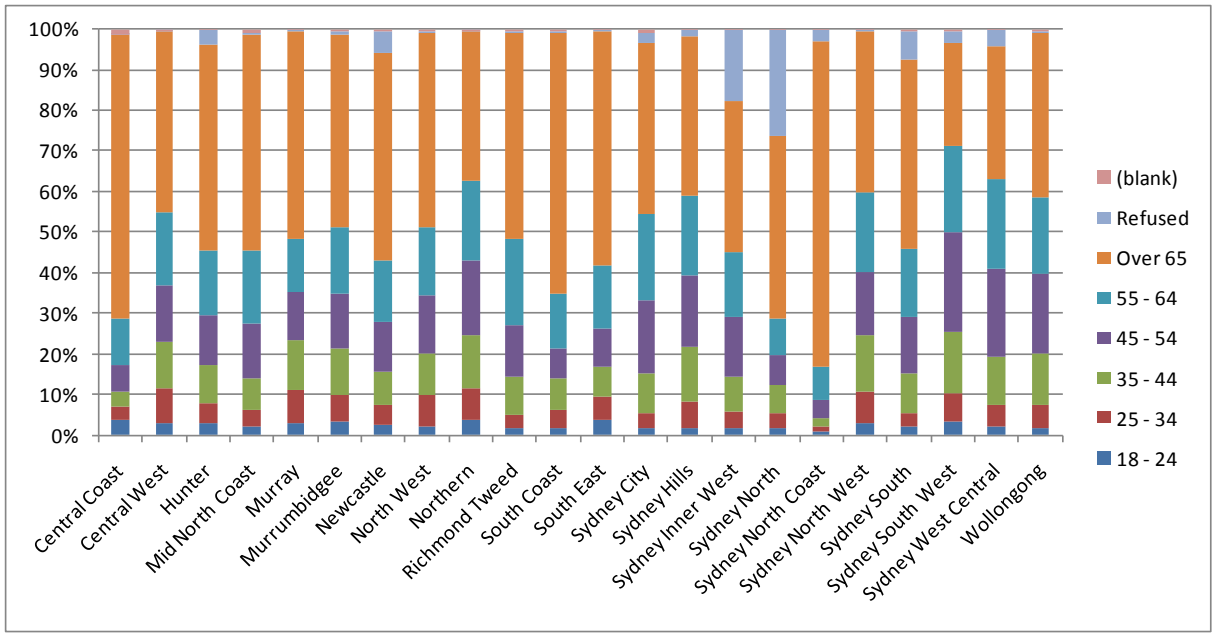
Source: DEAS, December 2011

Figure 8-2. Average time for the delivery of assessment across PCC



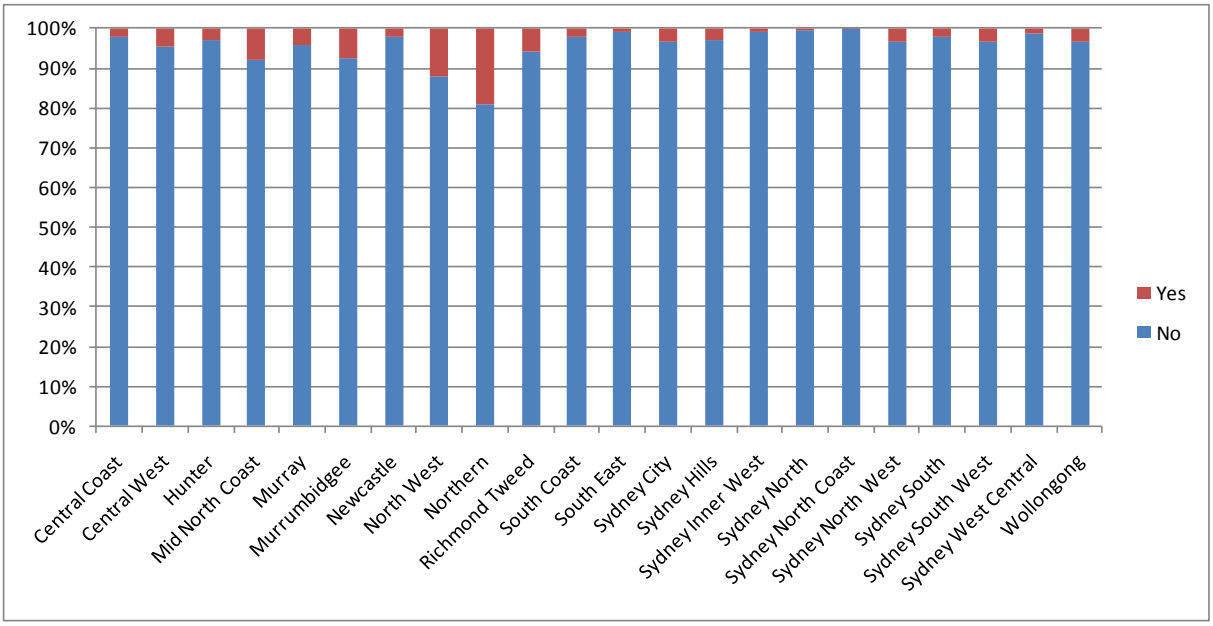
Source: DEAS, December 2011

Figure 8-3. Distribution of HPSP participants by age group across PCC



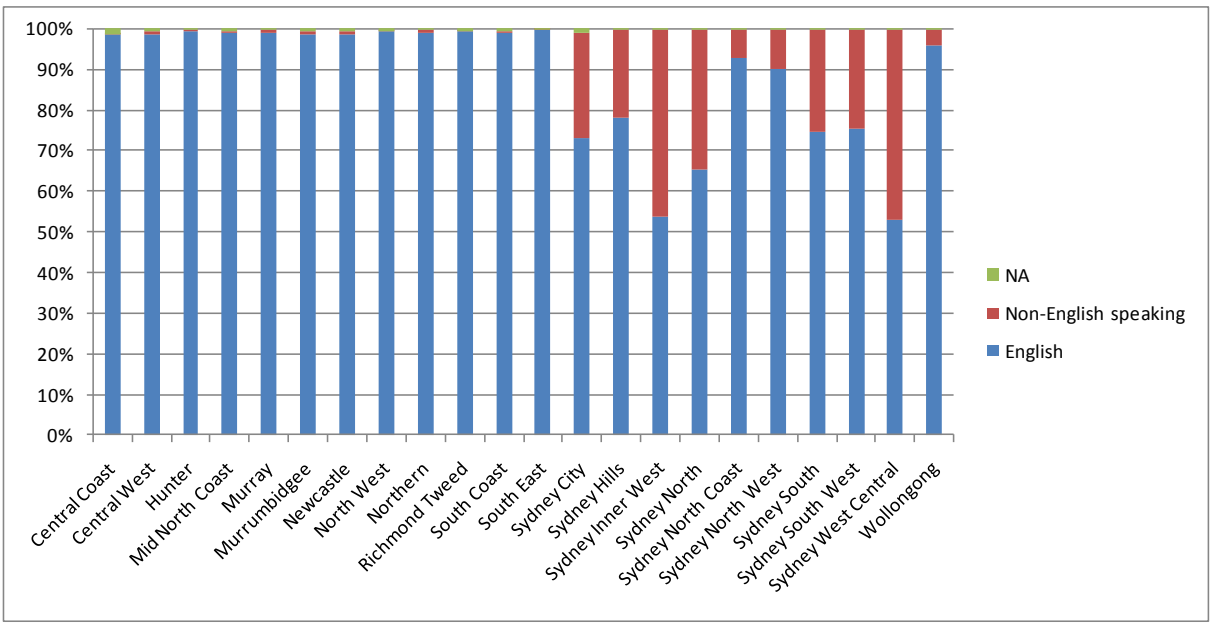
Source: DEAS, December 2011

Figure 8-4. Proportion of Aboriginal or Torres Straight Islander participants across PCC



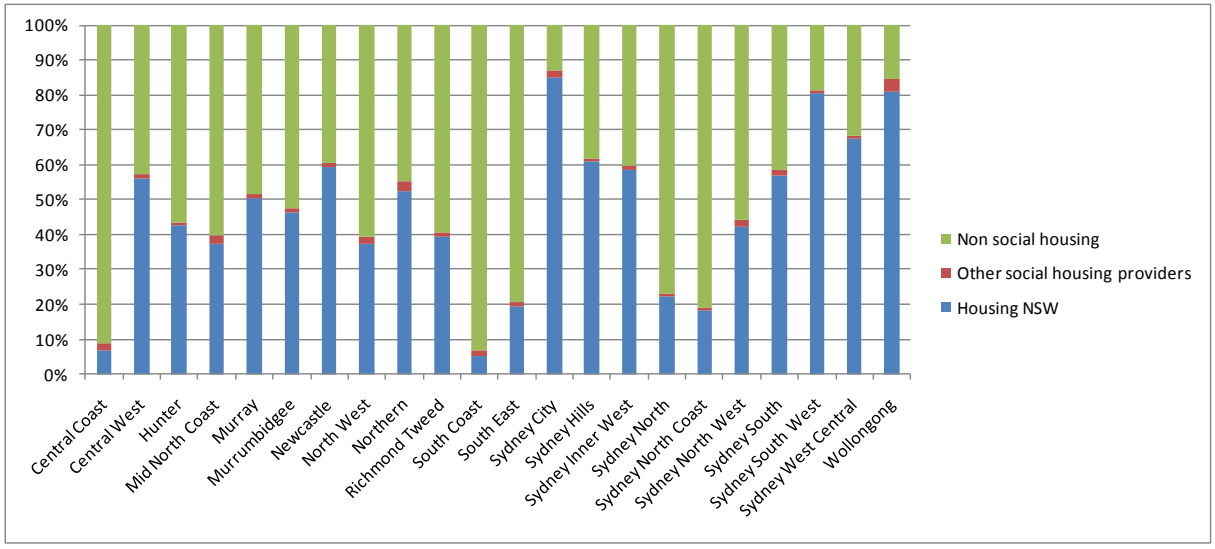
Source: DEAS, December 2011

Figure 8-5. Proportion of CALD participants across PCC



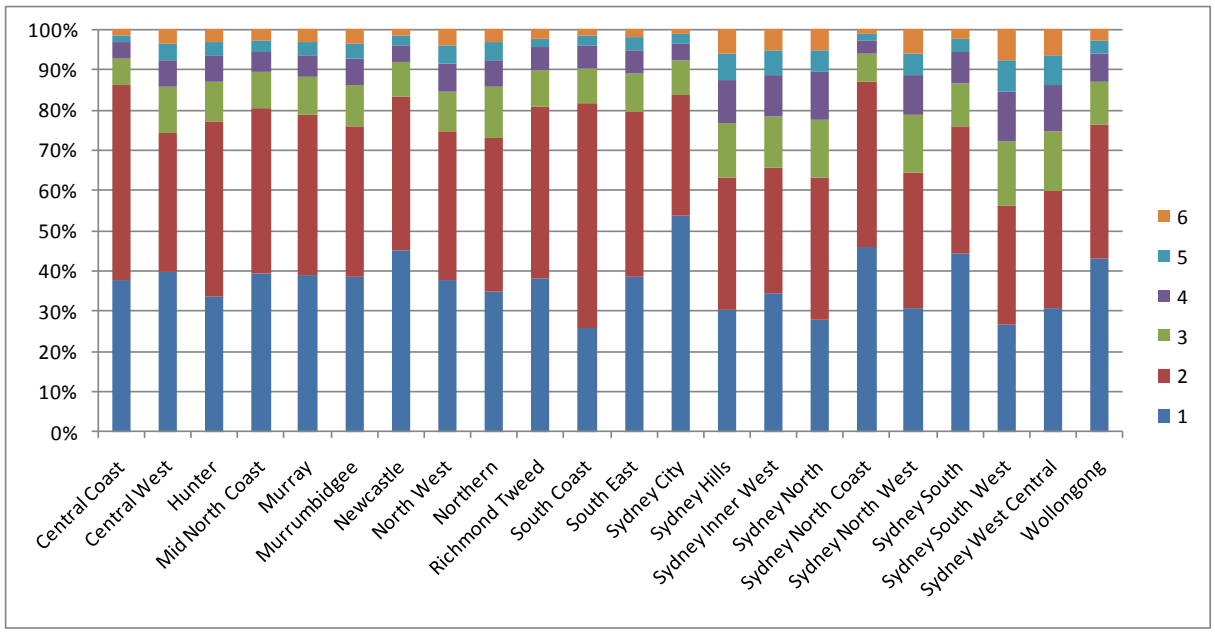
Source: DEAS, December 2011

Figure 8-6. Proportion of social housing tenants among HPSP participants across PCC



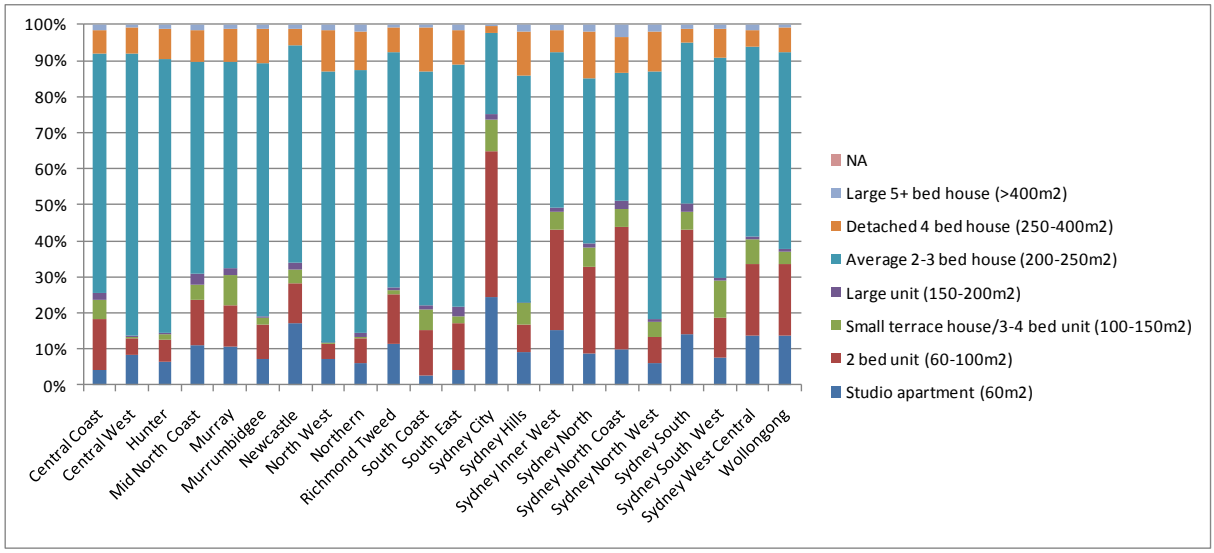
Source: DEAS, December 2011

Figure 8-7. Distribution of HPSP participants by number of household occupants across PCC



Source: DEAS, December 2011

Figure 8-8. Distribution of HPSP participants by size of dwelling across PCC



Source: DEAS, December 2011

Appendix 6. Example of a dashboard tool

Figure 8-9. StatPlanet Plus interactive map on HPSP assessments