

QUEENSLAND

WATTS SAVERS

Final Report



Acknowledgements

This Activity received funding from the Department of Climate Change and Energy Efficiency as part of an Energy Efficiency Information Grants Program. The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any information or advice contained herein.

This report was prepared by CitySmart and co-authored by Associate Professor, Retha Wiesner and Professor Julie Cotter from the University of Southern Queensland.

Key contacts

<p>CitySmart Tim Swinton Project Manager CitySmart Pty Ltd Level 5, 79 Adelaide St Brisbane Qld 4000 PO Box 13251 George St Brisbane Qld 4003 Tel: (07) 3007 7000 Email: tim.swinton@citysmart.com.au</p>	<p>Department of Industry Georgia Presutti Energy Efficiency Information Grants AusIndustry – Skills and Energy Programmes GPO Box 8939, Canberra ACT 2601 Phone: (02) 6243 7230 Email: georgia.presutti@industry.gov.au</p>
--	---



Contents

Acknowledgements.....	2
Key contacts	2
CitySmart Watt Savers Energy Efficiency Project	5
1.0 Executive summary	5
2.0 Project background	6
2.1 Funding	6
2.2 Objectives.....	7
2.3 Target audience	7
2.4 Watt Savers consortium.....	8
3.0 Project methodology	8
3.1 Mobilisation phase.....	9
3.1.1 Optimal target businesses for recruitment.....	9
3.1.2 Market insights	9
3.1.3 Design principles	11
3.1.4 Program design	11
3.1.5 Program build.....	13
3.2 In-field phase.....	13
3.2.1 Targeted recruitment.....	14
3.2.2 Information tools and channels	18
3.2.3 Education and action	18
3.3 Evaluation phase.....	20
3.3.1 Measurements and reports	21
4.0 Recognition and reward.....	21
4.1 Resources	21
5.0 Project deliverables.....	22
5.1 Watt Savers website	22
5.2 Fact sheets	23
5.3 Online tools.....	24
5.4 Energy insight workshops	26
5.5 Financing assistance information	26



5.6 Onsite audit reports 26

6.0 Project outcomes 27

 6.1 Results 28

 6.2 Promoting synergies with other programs 31

7.0 Budget 32

8.0 Lessons learnt 32

 8.1 Key learnings 32

 8.2 Project methodology learnings 34

 8.3 Deliverables learnings 35

9.0 Conclusion 35

10.0 Appendices 37

 Appendix 1: Watt Savers Consortium 37

 Appendix 2: Case study results 39

 Appendix 3: Watt Savers Sign Up page 41

 Appendix 4: Calculator, energy check-up and action plan 44

 Appendix 5: Delivering on the project measures 52

 Appendix 6: Glossary 53



CitySmart Watt Savers Energy Efficiency Project

1.0 Executive summary

For a small business or community organisation which is poor in time as well as financial resources and continuous focus on their core business is paramount, being aware or sufficiently informed on optimal ways to identify, manage and reduce their energy use requires a great deal of motivation. However, with the right information and the right support, the benefits and payback of energy efficiency is a proven, effective means of responding to ever-increasing energy costs.

Over 2013-14 CitySmart's Queensland Watt Savers program demonstrated that, by overcoming the target group's barriers, engaging, educating and encouraging small and medium enterprises and community organisations to better understand energy efficiency, they can make informed decisions about their energy consumption – and thereby reduce their operating costs.

Watt Savers is a unique solution in a flexible energy information and customer service model that empowers SMEs and community organisations to take action through convenient, self-paced engagement channels designed to meet their needs. Through the use of Watt Savers' suite of customised energy tools, more than 300 SMEs that had previously considered energy efficiency a low priority have now taken action.

Following rigorous post-program evaluation, the effectiveness of the Watt Savers program has been proven with key results including:

- 338 participants located throughout the greater Brisbane area reporting 558 energy efficiency actions undertaken during the program.
- Two thirds of participants indicating that they felt more informed about energy efficiency issues after engaging in the Watt Savers program.
- Total average energy consumption being reduced by an average of 10,177 kWh per annum, representing an estimated 4% cost saving.

Following the success of the initial program, CitySmart is confident there is significant opportunity to extend Watt Savers into larger segments of the market and the program can be leveraged to service and support a wider SME audience.



2.0 Project background

Reducing energy costs through energy efficiency is one of the most effective means of responding to rising energy costs. Energy, once perceived as a relatively low fixed cost, is now becoming an important variable cost that impacts on profits. There is much room for improvement in the energy performance of many SMEs to enable them to respond to the impact of increasing energy costs.

Small and medium enterprises (SMEs) are often poor in time and financial resources, and focus on their core business. As a result, they are not always aware or sufficiently informed on optimal ways to identify, manage and reduce their energy costs. Community organisations are focussed on delivering services and have limited ability to pass on costs because they provide services for free, or to those with limited ability to pay.

CitySmart's Watt Savers Project was designed to overcome the target group's barriers, demonstrating that by engaging, educating and encouraging SMEs and community organisations to better understand energy efficiency they can make informed decisions about their energy consumption – and thereby reduce their operational costs

SMEs are very difficult to engage on energy management as they are time poor, don't always have access to the right information or necessary capital and are mainly focused on their core business. Unlike the residential market, where one solution will meet most of the market need, or large commercial and industrial market, where it is cost effective to assign individuals to assist with the energy management, the SME market is too diverse to take either approach.

In 2013, CitySmart Pty Ltd developed the Queensland Watt Savers program to assist small-to-medium enterprises (SMEs) in reducing their energy use. Watt Savers provided online and face-to-face services from July 2013 to August 2014.

2.1 Funding

Watt Savers was funded under the Australian Department of Industry's Energy Efficiency Information Grants Program, with additional contributions from consortium partners, both financial and in-kind in the form of content provision as well as marketing, research and technical services.



The Energy Efficiency Information Grants is a \$34 million merit-based, competitive grants program established by the Australian Government to assist industry associations and non-profits to provide practical, tailored energy efficiency information to SMEs and community organisations to make informed decisions about energy efficiency - and thereby reduce their operational costs.

2.2 Objectives

Watt Savers was designed to engage, educate and empower SMEs and community organisations to understand, manage and make informed decisions about their energy consumption. This was successfully achieved by:

- Engaging SME decision makers by means of convenient, interactive communication channels and tools, including online, workshops and advisory services that enabled greater connection and participation from targeted SMEs.
- Providing high-quality information and education, relating to energy efficiency to 300 SMEs across Brisbane.
- Delivering relevant information and providing tools that identified tailored energy saving opportunities for each participating business as well as action plans for implementation.
- Developing industry-specific information and business cases that outline the financial impact of energy efficiency options.
- Measuring energy reduction from actions undertaken during the project.
- Creating a business model for SME energy reduction that can be rolled out in whole or as individual components to a broader audience beyond SMEs in the Brisbane area.

2.3 Target audience

Small and medium enterprises are a dynamic and often under-appreciated part of the Australian economy. Businesses with fewer than 200 full time equivalent employees drive the most economic benefit and employment within Australia, with SMEs making up over 57% of the Australian economy.¹ South East Queensland is home to more than 40,000 SMEs² that use an estimated 40% of the regions total electricity consumption.

¹ Source: www.sustainablelivingguide.com.au/sme

² SMEs defined by Energex commercial tariff and consumption rates



SMEs operate across a broad environment where the average annual energy bill is estimated to range from \$3,479 to \$173,925 that has increased in Queensland by 62% over the last 5 years³. Energy, once perceived as a (relatively low) fixed cost, is now becoming an important variable cost that impacts on profits.⁴ There is much room for improvement in the energy performance of many SMEs to enable them to respond to the impact of increasing energy costs.

There are options available to assist SMEs to save on energy-related costs including energy efficiency and management of energy tariffs. However, given the size and constraints of SMEs (e.g. time, resources and access to information), they are often more focused on core business outcomes and are difficult to engage. CitySmart's expertise and understanding of the SME market enabled them to readily engage SMEs in participating in Watt Savers as well as being able to provide the right support in managing and overcoming challenges faced during the project.

2.4 Watt Savers consortium

CitySmart has a proven track record of delivering innovation through collaboration. To ensure the project benefited from high quality input at both the design and delivery phases, a consortium was created leveraging the specialist knowledge and capabilities of the CitySmart network.

Comprising key corporate partners from academic, industrial and energy sectors – the consortium was tasked with supporting the project objectives and providing advice, expertise and services relating to their energy specialisation.

The consortium was made up of Rio Tinto, Business South Bank, Energex, University of Southern Queensland and Clean Energy Finance Corporation.

See Appendix 1 for an outline of the individual roles of each of the consortium members.

3.0 Project methodology

Watt Savers adopted a user-centred approach that focused on the needs of the SMEs and was delivered in three key phases. This approach enabled CitySmart to deliver a thorough and custom

³ <http://www/qca.org.au>

⁴ Energy Management and Company Competitiveness Report October 2014.



designed program tailored for the target audience, built to provide a comprehensive yet accessible program with a high likelihood of success in supporting long-term, sustainable energy reduction and savings for its participants.

3.1 Mobilisation phase

Over the nine month mobilisation phase (October 2012 to June 2013) CitySmart completed intensive planning, design and development based on robust qualitative market research and customer insights.

3.1.1 Optimal target businesses for recruitment

Business South Bank has been representing the needs of businesses with the Brisbane South Bank commercial precinct since 1999 and has over 121 member businesses with which it has engaged on sustainability issues through a range of regular channels including newsletters and events. Business South Bank has a goal to become 'Australia's most sustainable business precinct and actively promoted the program as an opportunity to further inform their members and convert awareness and education into action.

Rio Tinto has over 1400 suppliers in the greater Brisbane area, the majority of which are SMEs. As a trusted, leading global business, Rio Tinto has contributed to the development of new initiatives that have shaped improved the business community. As a result of having direct links with small business within its supply chain, it was expected that communication would penetrate to decision makers.

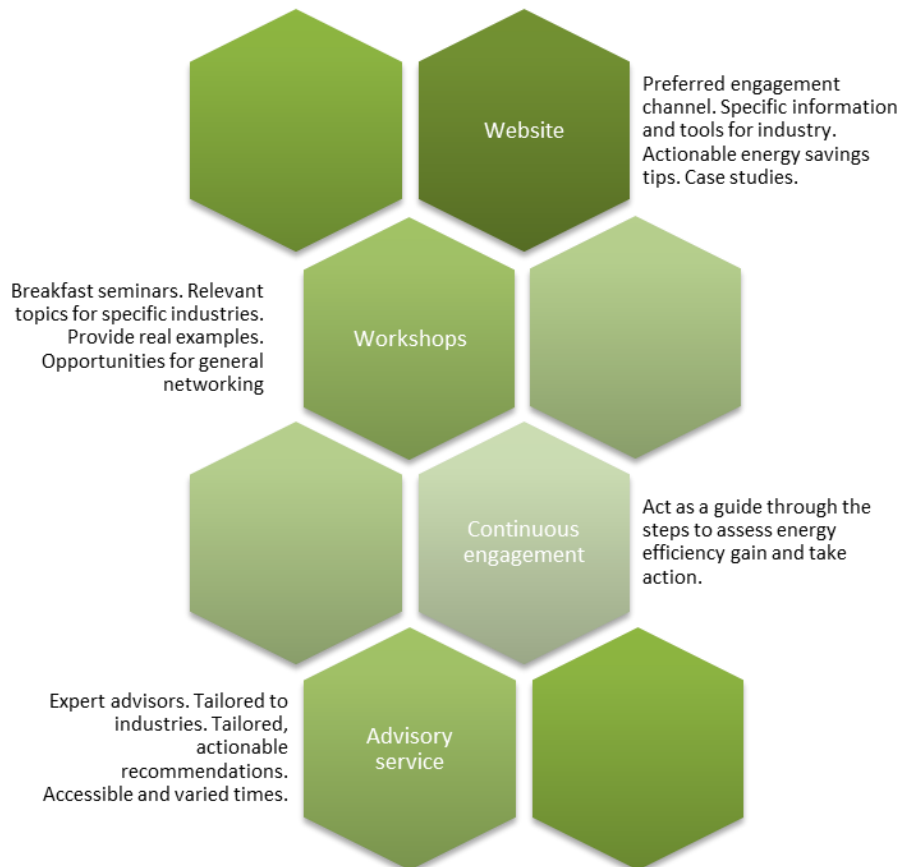
3.1.2 Market insights

To reliably inform the overall design of Watt Savers, desktop and market research provided a deeper knowledge of the target audience, identifying key industry groups, understanding their drivers for change and their appetite for energy efficiency action. The insights also revealed the SMEs' existing attitudes and behaviours relating to energy use and their current level of engagement.

The information gathered during this period also helped CitySmart identify the baseline knowledge of their target audience and potential barriers for taking action, helping CitySmart determine the best engagement methods to involve SMEs and the most efficient communication channels to enable access to information.

Market research activities included focus groups, in-depth interviews and a business forum that captured insights from businesses within the Rio Tinto supply chain and the Business South Bank membership, some of the key insights from this outlined below.

Diagram 1: Identified engagement methods and communication channels



An analysis of the primary potential target market identified six key industry sectors: retail, business and professional services, hospitality (cafés, restaurants and accommodation), manufacturing and warehousing, construction and a miscellaneous category ‘other’ for general sectors that do not sit within the aforementioned categories.

Having a clear understanding of these sectors allowed CitySmart to develop tailored information products focusing on areas where energy efficiency can be best achieved for SMEs, which included:

1. Heating ventilation and cooling (HVAC)
2. Refrigeration



3. Motors
4. Hot water
5. Lighting
6. Fuel substitutions

During recruitment of market research participants, a likely risk was identified that target take-up rates through the primary recruitment channels of Rio Tinto's supply chain and the Business South Bank membership would not deliver the entire 300 targeted participants. To mitigate this risk, targeting plans were therefore revised, with additional channels prepared for deployment in a second phase of recruitment activity.

3.1.3 Design principles

In creating Watt Savers, CitySmart adhered to core design principles centred on short, sharp messaging, highly-relevant information products, flexible support options to suit a range of different SMEs, clear pathways to action and illustration of the immediate benefit to participants.

3.1.4 Program design

Watt Savers was designed to practically drive behaviour change. A behavioural change model was designed to guide and support participants through the various stages of change, from information and education, to action and maintenance. Watt Savers takes participants through a simple and logical journey that responded to the unique characteristics of small businesses and their owners, with particular focus on their need for self-efficacy and empowerment as key success factors of engagement with energy management information.

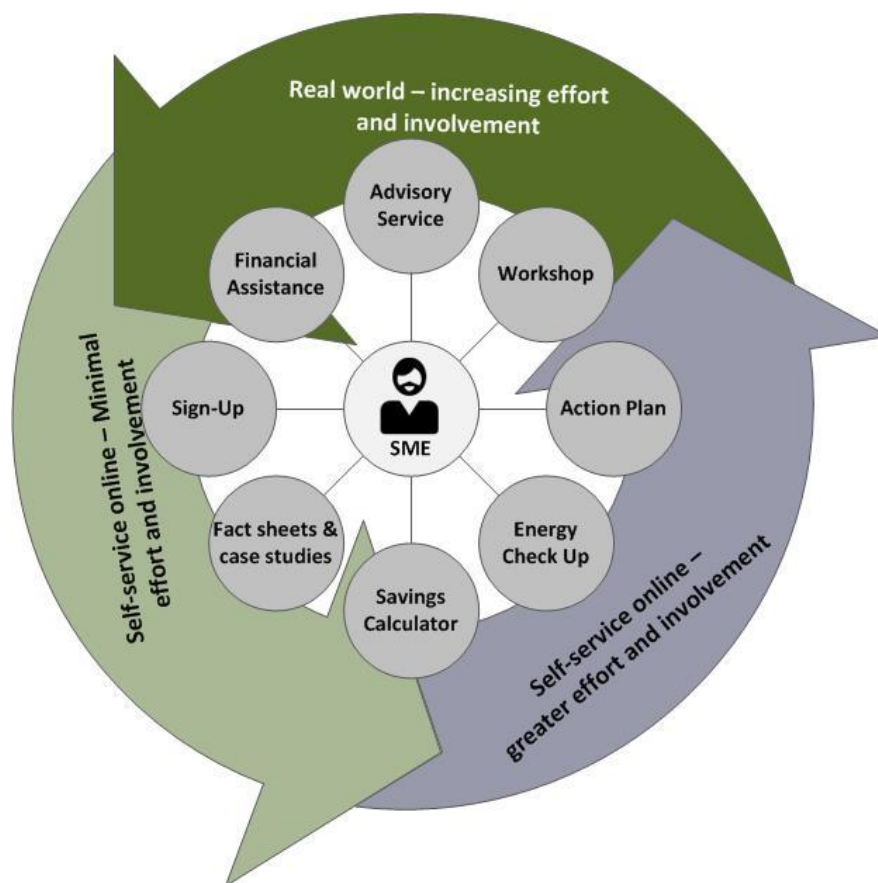
It particularly tapped in to the intrinsic nature of small business owners who tend to be self-driven personalities that enjoy the control that small business offers them. The program was therefore designed for delivery of convenient, self-paced learning of accessible information in addition to transfer of 'do-it-yourself' type skills, tools and actions as fundamental first steps in the energy reduction process.

The program was therefore designed to deliver:

- innovative methods to recruit time poor SME decision makers

- a range of interaction channels to suit different preferences and time constraints of SMEs (online, workshop, phone or site visits)
- high-quality information and education to build energy knowledge
- interactive on-line tools to identify high-level energy saving potential
- on-line action plans offering a wide range of practical action options for implementation
- staff engagement tools that encourage staff to take action
- fast paced workshops featuring energy experts and case studies
- subsidised energy audits to understand unique energy saving opportunities for individual SMEs
- connection between SMEs and industry to support energy efficiency upgrades
- promotion of financial options available to support energy efficiency upgrades
- promotion and sharing of the success of businesses who have taken action
- measurement of long term energy reduction from the actions undertaken during the project.

Diagram 2: Watt Savers design for behaviour change





3.1.5 Program build

Over a period of nine months to June 2013, CitySmart managed the build of the program from information assets to fulfilment. A core working group comprising subject matter experts from CitySmart, Energex, University of Southern Queensland and Clean Energy Finance Corporation were engaged to develop the specialised content, information products and tailored tools for the program. Energy efficiency information was created with a focus on leveraging existing content and prior knowledge, developing relevant and industry-specific information, minimising the amount of necessary information, ensuring the information provided was clear and easy to access and providing information that could be actioned within the capability of the participants.

During this time, CitySmart also undertook:

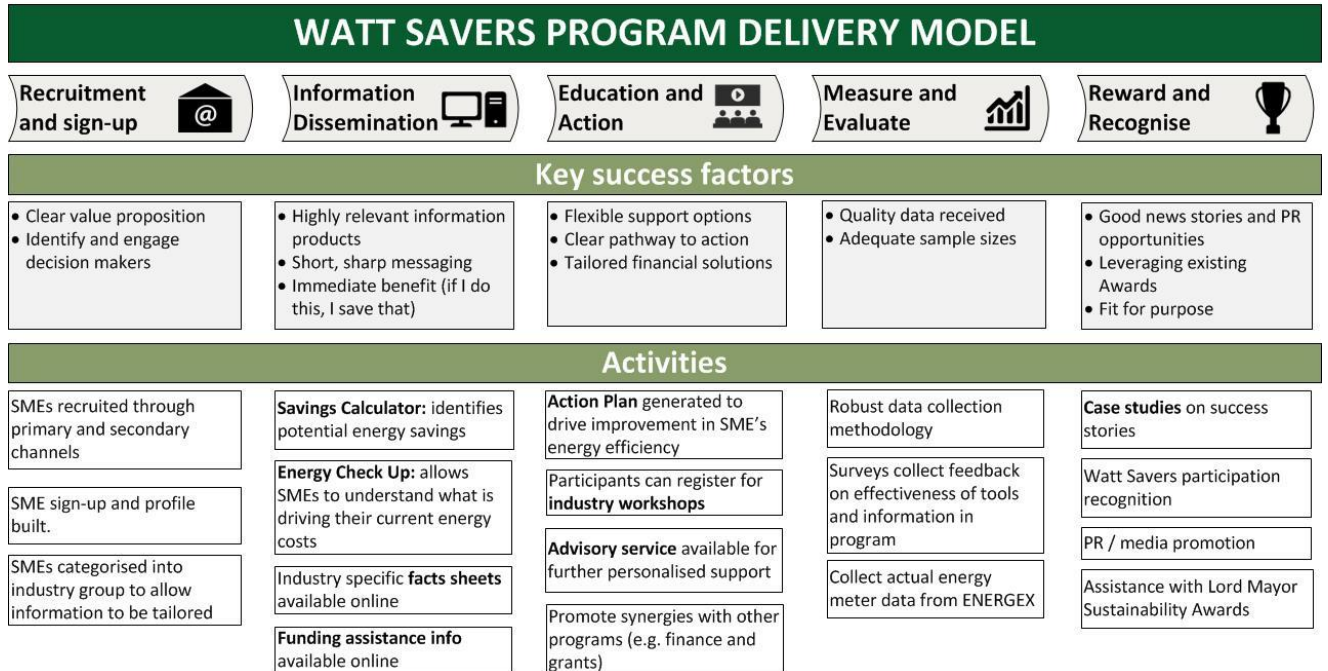
- Formulation and build of information products, including collation of expert and verified energy data and content relevant to the target market
- Build of the Watt Savers website and tools available therein, including an exclusive members-access portal to energy reduction content, including calculators and tailored action plans
- Mapping of the desired customer journey and engagement plan, including communications to support the program objectives at each stage, e.g. promotion, recruitment, program steps and reminders
- Workshop series design, materials production and scheduling
- Design and delivery arrangements for fulfilment of an on-site audit solution
- Design and delivery of financial solutions, harnessing aligned third-party offerings
- Establishment of an evaluation plan, methodology and key performance indicators
- Procurement and management of service providers and project requirements through the entire build phase, key being creative, IT and audit services
- Integration of each of the above outlined components in to a single program which delivered on its objectives

3.2 In-field phase

Watt Savers was launched in July 2013, the start of an in-field phase which constituted the key delivery period for the program, including dissemination of tailored and specific information to participants as well as education, advice and support for participants to implement their own action plans. It was the most significant stage of the project, not least as it involved the recruitment and



engagement of 338 program participants. The final program was released at this time and the data collected forms the basis for results analysed herein.

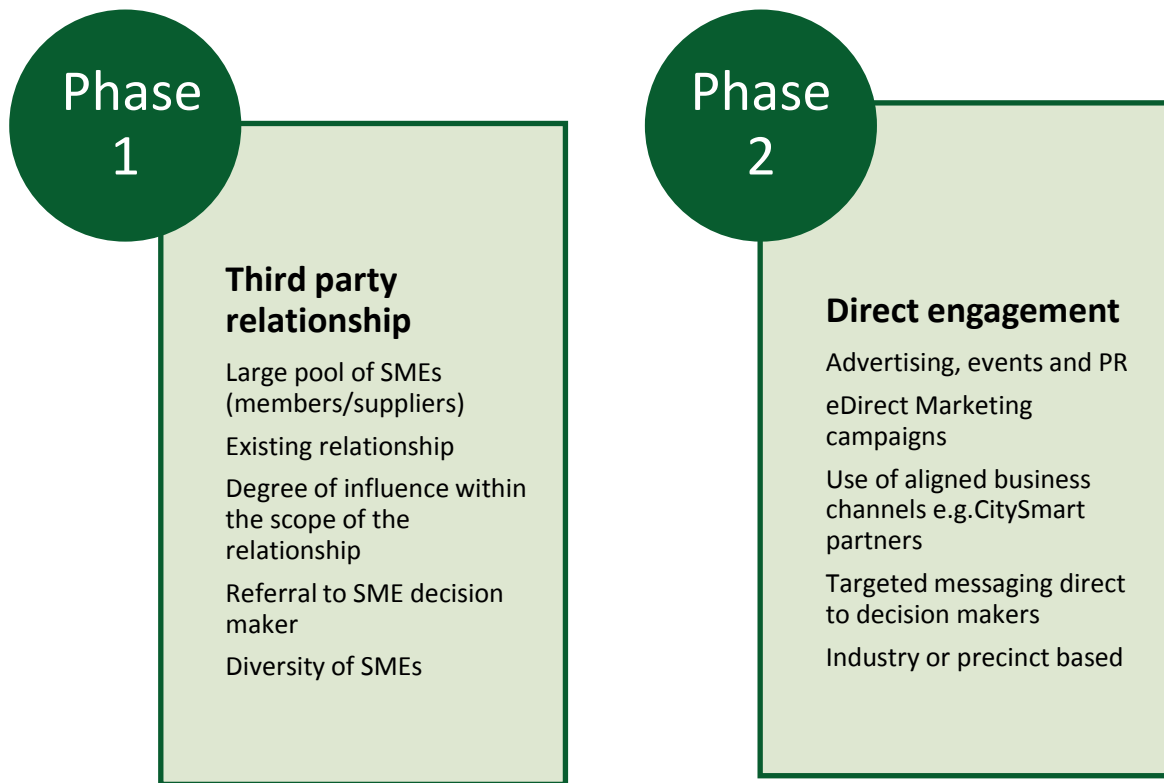


3.2.1 Targeted recruitment

Recruitment activity commenced directly after launch of the project and initially focussed on maximising conversion rates from engagement with the primary small business channels of the Rio Tinto supply chain and Business South Bank membership base.

With recruitment primarily facilitated via an online signup process, CitySmart was able to quickly identify strengths and opportunities from the trends being observed in response to various activities, an agile marketing plan being put in to action.

Diagram 4: Watt Savers two-phase recruitment



Phase 1

The Watt Savers recruitment strategy activity was designed to source participants by leveraging the networks and connections of two of the Consortium members - Rio Tinto and Business South Bank (BSB). This approach allowed CitySmart to utilise targeted recruitment channels that leveraged the network of two respected and well-connected brands and provided access to a diverse range of more than 1,300 SMEs in the greater Brisbane area.

Precinct-based Business Association approach	Supply Chain Partner approach
<p>Business South Bank:</p> <p>Connected and engaged with 121 members through:</p> <ul style="list-style-type: none"> • Electronic direct mail • Newsletters • Broad and regular calendar of events • Direct telephone contact 	<p>Rio Tinto</p> <p>Connected with 1,200 suppliers through:</p> <ul style="list-style-type: none"> • Direct mail out • Electronic direct mail



Phase 2

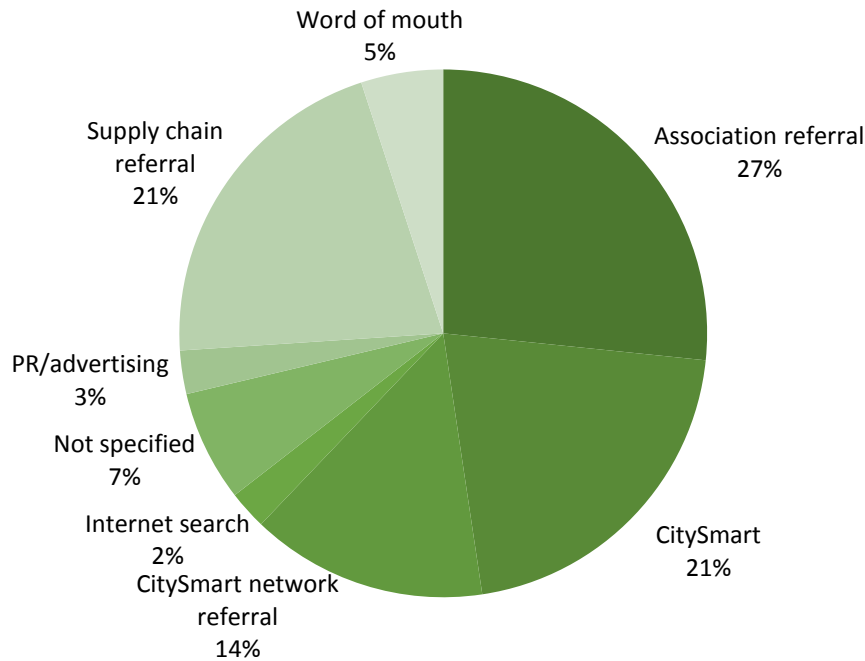
The degree of influence each of Rio Tinto and Business South Bank had with SMEs in their respective networks was only within their scope of or history behind the relationship with the business. In order to reach the KPIs set for the program, an extension of the recruitment needed to be undertaken, broadening the reach of the Watt Savers brand into other networks.

Phase 2 of the targeted recruitment activity introduced a number of secondary channels to the marketing mix to increase the pool of SMEs. CitySmart implemented an integrated multi-channel promotion strategy, which included tapping into its network of large corporates, relevant industry associations and business precincts to help promote the program across Brisbane. This promotional recruitment strategy was then amplified through online advertising, public relations and, email and direct marketing campaigns.

Direct marketing campaigns to CitySmart partner channels	Advertising and wider market promotion
<p>Queensland Rugby Union</p> <ul style="list-style-type: none"> Network of member sports clubs <p>Regional Development Association</p> <ul style="list-style-type: none"> Program, event participants <p>BDO Australia</p> <ul style="list-style-type: none"> Access to SME business advisory clients <p>IEM</p> <ul style="list-style-type: none"> Value add to increase reduction opportunities to client base <p>CitySmart / Council</p> <ul style="list-style-type: none"> Use of existing networks and channels to directly engage SMEs and encourage referral 	<p>Industry based</p> <ul style="list-style-type: none"> e.g. Australian Hairdressing Council, Brisbane Marketing <p>Precinct based</p> <ul style="list-style-type: none"> e.g. Brisbane North Chamber of Commerce <p>Small business networks events</p> <ul style="list-style-type: none"> e.g. Lord Mayor’s Forum and Brisbane South Bank <p>Online business organisations</p> <ul style="list-style-type: none"> e.g. Business.gov.au and Brisbane Business News <p>Direct DL flyer mailbox drop across 14,000 businesses across Brisbane</p> <p>Banner advertising on Brisbane Times</p> <p>Feature articles in online magazines such as Facilities Management and Fifth Estate</p>



As a result of this two-phase recruitment strategy 338 participants successfully registered for Watt Savers of which the majority (83 per cent) signed up through the website. The following graph illustrates the contribution of each of the recruitment channels.



Significantly, 42% of BSB members have participated in the program whilst 5% of Rio's supply chain took up the offer to sign up. With the Business South Bank association having, over some years, engaged its members to actively reduce their individual environmental footprint, the take-up rate was higher than expected by CitySmart. This can be attributed to Business South Bank support activity which supported recruitment including promoting Watt Savers at regular events; phone and email touch points with each member company during the in-field phase and aligned participation with its own sustainability awards.

Rio Tinto is a well-respected brand to its supply chain; however energy efficiency practices had not previously been raised as a topic of engagement between it and its suppliers. To this end, the communication plan involving direct mail and electronic communication from the procurement division, which holds the primary relationship with these businesses, did not have the same cut-through to SME decision makers as Business South Bank.

See also Appendix 3 for a breakdown of participants by key demographics.



3.2.2 Information tools and channels

Watt Savers offered a range of interactive channels to make it easier for decision makers in SMEs to find information about energy efficiency and to connect in more effective ways that would not hamper time-constraints, cost or effort. This included the creation of the Watt Savers website and the design of sophisticated support systems for managing the back-end of the project. A Customer Relationship Management (CRM) database and a system for reading the electricity consumption data were developed to build an understanding of each customer's energy related actions and impact of these actions on their overall energy consumption.

During the program evaluation, respondents commented favourably on having a wide variety of ways to access information, which was largely enabled by the design of the website which delivered the bulk of the content developed to support the program and provided an interface for the participant of the project to inform and progress their action plans.

3.2.3 Education and action

Energy insight workshops

A series of interactive, face-to-face educational workshops were delivered to participants during the project. The Energy Insight Workshops were facilitated over breakfast and were designed to allow time-poor SMEs to build their knowledge and to easily access and engage with key contacts and energy experts.

Four workshops were delivered over the course of the program, each representing the six key industry sectors and geographically spread around Brisbane to enable maximum participation. The workshops were delivered in a fast-paced and dynamic fashion and included a series of short energy efficiency presentations delivered by Watt Savers' partners, including electricity distributor Energex, Integrated Energy Management presenting the benefits of an energy audit, and Clean Energy Finance Corporation. The presentations included a session on demand management funding opportunities, the benefits and what is involved in undertaking an energy audit, as well as information on financing opportunities for energy efficiency improvements from a number of sources.

The workshops were also an avenue for SMEs to showcase their successful sustainability improvements on a peer-to-peer basis. In addition to the presentations, round-table discussions were held, which focused on industry-specific topics, led by experienced like-industry peers or energy industry experts, as most relevant for the industry represented at the table. The workshops were an avenue for knowledge sharing as well as initiating actions to implement some of the insights gained.

Local, independent Brisbane-based companies that offered energy efficiency products and services were also invited to exhibit at each workshop and networking opportunities were facilitated throughout each event to ensure all participants gained insight and value.

The unique workshop model was successfully developed and delivered through the Watt Savers program, increasing self-efficacy through presentation of relevant case studies and the opportunity to absorb information presented simply and reinforced through peer discussion.

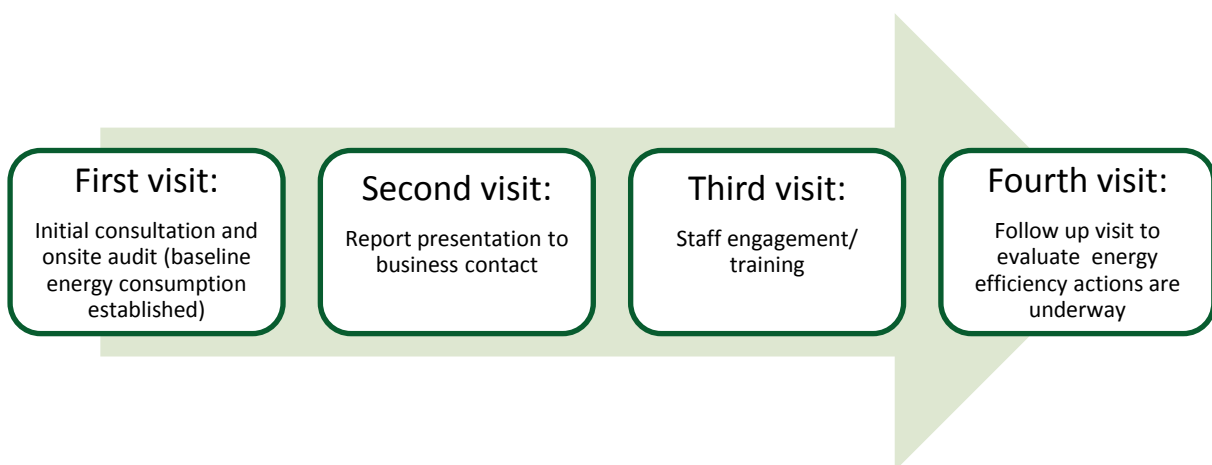
Photos from the Energy Insight Workshops



Advisory services

Another face-to-face offering of Watt Savers was the advisory service, which provided information and advice to address each participant's unique circumstances – this included onsite energy audits as well as a telephone advisory service.

The onsite energy audits were heavily subsidised by Watt Savers and were targeted at businesses seeking a detailed and thorough understanding of their energy use and specific recommendations for the actions required for improvement. For as little as \$50, businesses received an initial onsite audit, with the opportunity to access subsequent advice and support through a four-step process:



This on-site energy assessment and follow-through approach was designed to assist in removing any remaining information barriers to taking action, not least of which is the need for business owners to understand what the opportunity is in terms of effort or investment required and likely outcomes as a return on that investment.

3.3 Evaluation phase

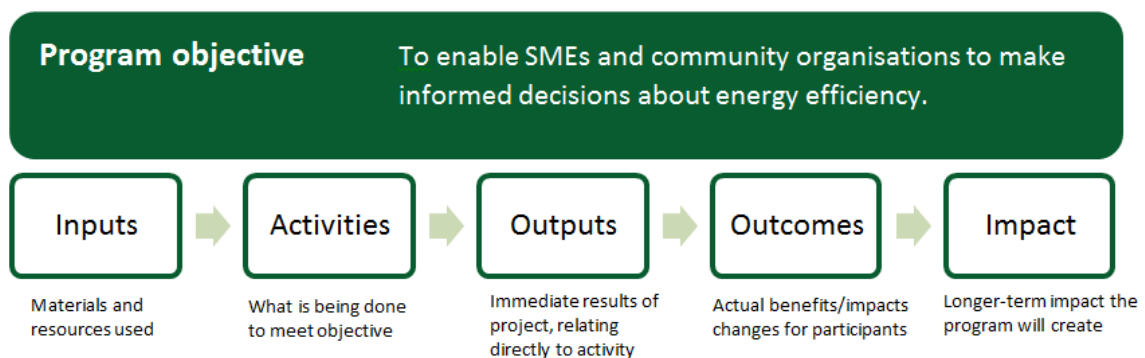
The evaluation and measurement of the program were critical components in the project and the rigorous analysis undertaken was a key feature of Watt Savers, strengthened by the active engagement of University of Southern Queensland through its Australian Centre for Sustainable Business and Development.

This phase provided an opportunity to gather and assess insights validated through robust business, energy use, attitudes and behaviour data collected during the program and to

analyse and record the results that would not only measure the success of the Watt Savers program to date but also inform refinements on future programs.

3.3.1 Measurements and reports

CitySmart and research partner, University of Southern Queensland, developed and implemented an evaluation plan to identify and monitor performance measures for the project to ensure the project was delivering on its objectives. The following framework was used to guide that process:



4.0 Recognition and reward

As part of the conclusion of the project, CitySmart plan to conduct an event, early in 2015, which showcases and celebrates the successes of the Watt Savers participants. However, prior to the completion of the project, participants and partners of Watt Savers have already gained recognition as a result of their participation in the project. Watt Savers research partner, the University of Southern Queensland, will incorporate the learning from the project into a theoretical and practical gap in public discourse surrounding energy patterns and education programs for SMEs.

4.1 Resources

Watt Savers was developed in partnership with external resources including the Department of Industry and consortium partners, Rio Tinto, Business South Bank, Energex, the University of Southern Queensland and Clean Energy Finance Corporation, all recruited to the project as a result of ongoing consultation with each organisation as active participants in its partner network. Much of the initial design work was undertaken as a result of CitySmart partner engagement and support, including resource allocation for the project, garnered early as a result of the trusted relationship between each of the consortium members.



CitySmart resources were also allocated to the project and were managed subject to the needs of the participants. The key resources allocated during the project included:

- The Watt Savers Consortium: Comprised of CitySmart and corporate partners from academic, industrial and energy sectors (as listed above).
- Core Working Group: Subject matter experts from CitySmart, Energex, University of Southern Queensland and Clean Energy Finance Corporation.
- Dedicated Project Managers: Assigned to the project initially on a full-time basis before transitioning to part-time once the program moved into the maintenance and evaluation period.
- An Oversight Committee: Comprised of senior representatives from CitySmart, Rio Tinto, BSB and Energex that was responsible for managing strategic business issues essential to delivering project outputs and attaining project outcomes.
- Marking and Administrative Support: Part-time resources were allocated during the program, which focused largely on support during the In-Field (recruitment) phase.

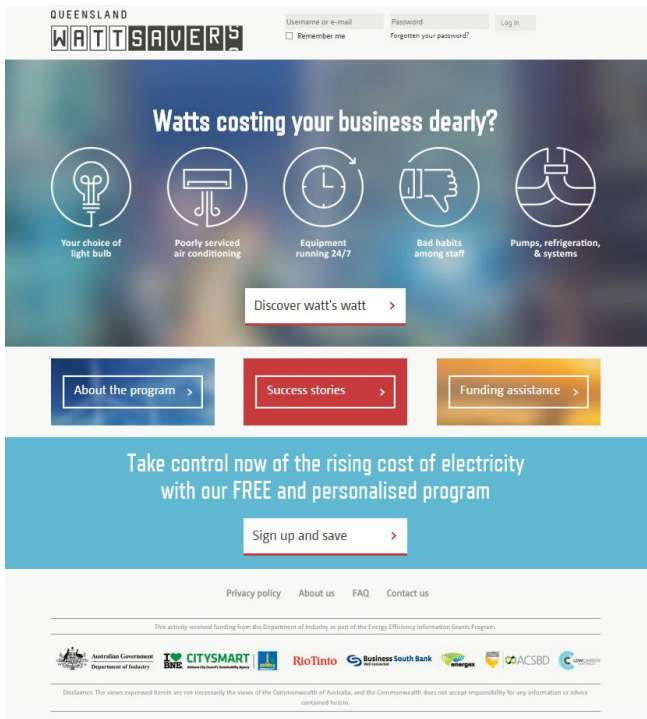
5.0 Project deliverables

In order to transfer otherwise technical energy efficiency skills and expertise into a practical, easy-to-implement solution for the participants, all the information provided by Watt Savers was tailored with a special emphasis on:

- short, sharp messaging
- highly-relevant information products
- flexible support options to suit a range of different SMEs and
- clear pathways to action and illustration of the immediate benefit to participants.

5.1 Watt Savers website

The primary information channel was the Watt Savers website – www.wattsavers.com.au - which provided a combination of publicly-accessible content relating to the project, as well as a members-only portal which housed fact sheets and online tools including an energy savings calculator, action plans and other tools designed to help businesses engage their staff and champion energy efficiency in their workplace.



The website utilised sophisticated business logic software, which enabled the participants to access that data (i.e. factsheets) which was relevant to their specific industry sector. The homepage content was kept minimal to enable efficient delivery of information; however, to boost recruitment efforts via the website during the In-Field phase, CitySmart revised the website to more clearly articulate the value proposition of the program and to illustrate the potential benefits to the participants.

As a result of the information provided by the participant on the website, including National

Meter Identifier (NMI), CitySmart was able to collect actual consumption data from the electricity distributor and metering provider, Energen. Data was collected on the participant’s primary site of operations, covering a period of 12 months prior to program recruitment and for a period of up to 12 months following. This has enabled CitySmart to conduct a comprehensive evaluation of the program, with actual consumption data rounding out the participant’s self-reporting of potential energy savings.

5.2 Fact sheets

Fact sheets were developed on a range of topics including, lighting, hot water, heating ventilation and cooling, refrigeration, motors, fuel substitution, cooking and kitchens, office and equipment. Participants were highly engaged with the fact sheets - the average time spent accessing the fact sheets (on the website) was close to two and half minutes⁵, more than double the average page visit on most websites.

Fact sheets relating to lighting were the most accessed topic (46 per cent of total fact sheet views). Fact sheets on refrigeration received 21 per cent of total views followed by heating ventilation and cooling at 14 per cent. Fact sheets on fuel substitution were the least accessed, indicating a low level

⁵ Statistics provided by Google Analytics specifically relating to the Watt Savers website

of participant engagement in that topic. Whereas hot water fact sheets had the highest level of engagement, with participants spending close to seven minutes⁶ accessing them.

Materials for business managers to engage staff to further support energy behaviour changes, such as light wobblers which prompted the last person leaving the room to turn off the lights, computers and air conditioners, were accessed and downloaded for use by 12 SMEs⁷ (three per cent) of participants.

Lighting fact sheet and energy saving reminder

The image displays a collection of energy-saving materials. On the left is a 'Lighting' fact sheet with the following content:

Lighting

Did you know lighting contributes to around 40% of all energy used in an office environment? For an office that typically spends \$2000 per quarter on electricity, around \$800 of that could account for lighting alone.

Increasing your business' lighting efficiency is one of the easiest and fastest ways to reduce your power bills and your greenhouse gas emissions. For instance, simply switching to compact fluorescent lighting (CFL) can cut your lighting electricity use by up to 75%. For taking steps to become more lighting efficient makes good business sense!

Fast facts

- Switch to compact fluorescent lighting → typical CFL uses around 75-80% less electricity and lasts between 8 and 15 times longer than incandescent bulbs.
- Another alternative is light emitting diode (LED) bulbs. LEDs can last up to 25 times longer than CFLs, and far longer than typical incandescent bulbs.
- Always turn off lights 50% of the energy they consume by turning off the head out light.
- Build-up dirt and dust on light bulbs and fittings can account for a light reduction of up to 30%. Make sure you have a regular cleaning schedule in place for bulbs and other light fittings.
- LED tube lights are available to replace standard fluorescent bulbs. As an LED fluorescent bulb.

Check out these cost and feature comparison charts to help you identify the best lighting option for your business.

Costs Compared	LED	CFL
Projected lifespan of a single light bulb (hours)	10,000	8,000
Watt usage per bulb (equivalent brightness to 60W incandescent)	10W	15W
Average cost per bulb (\$)	\$2.50	\$1.50
Electricity use over 50,000 hours (kWh)	100 kWh	150 kWh
Cost of electricity (\$ @ \$0.30 per kWh)	\$30.00	\$45.00
Bulbs needed for 50,000 hours of use	5,000	6,250
Bulb expense for equivalent 50,000 hours (\$)	\$12.50	\$9.38
Total cost for 50,000 hours (\$)	\$62.50	\$54.38

Features Compared	LED	CFL
Frequent on-off cycling	No effect	Shorts
Turns on instantly	Yes	Slight
Durability	Durable	Fragile
Heat emitted (joules/hr)	Low (5)	Medium
Sensitivity to temperature	No	Yes
Sensitivity to humidity	No	Yes
Hazardous materials	Safe	Small amount
Replacement frequency (over 50,000 hours)	1	5

Other great energy saving tips

- Install sensors or timers to ensure lights are on only when you are using them.
- Take advantage of natural light to reduce your need for artificial lighting. Windows clean and clear. Installing a skylight can increase the natural light entering your office.
- When switching your light bulbs over to CFLs and LEDs, remember to turn off all the lights after hours and on weekends. Remove your staff's energy rights too.
- If you have many rooms for more than 10 minutes, remember to turn them off when no longer using a particular area. You may even like to place sensors in rooms that are not used frequently.
- Consider installing lighting controls like occupancy and light sensors. They reduce the energy you use on lighting by up to 30%.
- Regular light fitting maintenance. They can increase output by 10%.
- LED bulbs use only 2-3 watts of electricity from a 10W, so a 10-watt bulb is only use electricity, they remain cool, and also save money on replacement.

ENERGY SAVING REMINDERS: LIGHTING

Use these handy energy saving reminders to encourage action around your workplace. Simply print out as many as you need (colour is best to grab the eye), cut them out and put them up on or near your relevant fixtures, equipment or machinery.

PRINT → CUT → STICK → ACT

The reminders feature the text: "LAST OUT? LIGHTS OUT! Lights burn bright, churning up \$\$\$\$ & energy. Switch off after hours and when not needed." and the WATTS SAVERS logo.

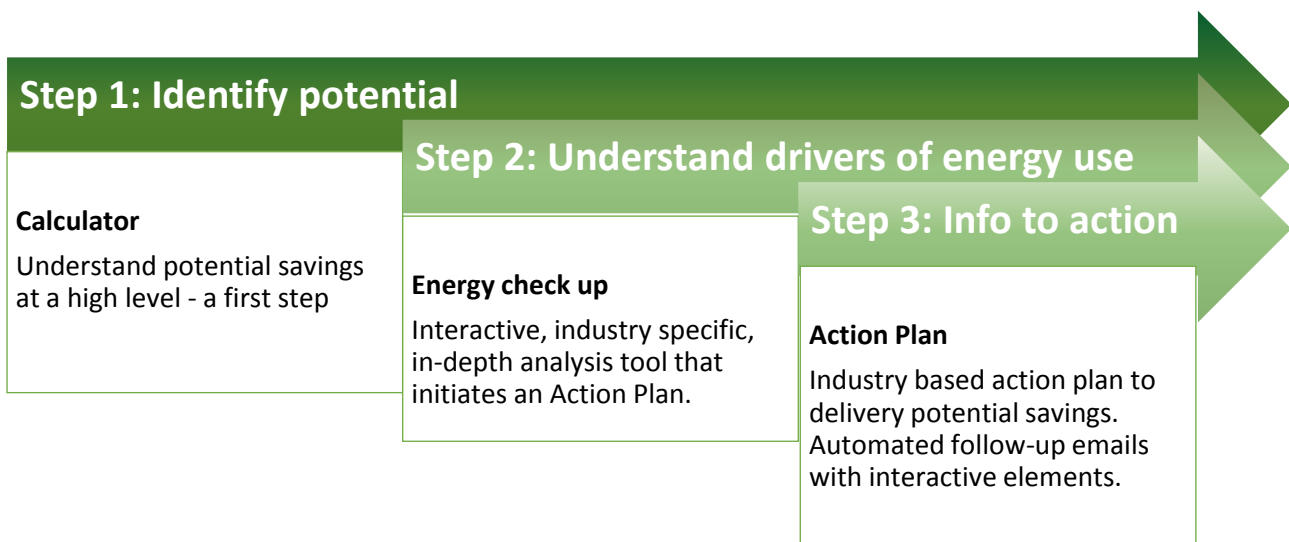
Disclaimer: The above information is not necessarily the view of the Government of Queensland, and the Government is not responsible for any information or advice contained herein.

5.3 Online tools

The savings calculator and energy check-up were tools created to assist SMEs to identify and understand potential energy efficiency opportunities as a critical step in moving towards taking action to reduce energy consumption. The tools assisted SMEs in calculating potential cost savings as well as identifying the largest users of electricity within their business.

⁶⁷ Statistics provided by Google Analytics specifically relating to the Watt Savers website

Through interactive and automated processes, the web-based tools provided participants with an intuitive self-service facility which they could access at their convenience and to the degree that suited their business and levels of energy sophistication. Once the potential cost savings were identified, participants could choose from a number of options to then undertake necessary action as shown below.



Appendix 4 also details how the calculators, energy check-up and action plan worked.

5.3.1 Potential cost savings

Reports generated for participants through the savings calculator tool identified an average annual potential energy saving of \$623 per business or 8% of their total energy costs.

Of the participants who used the savings calculator, only 53% took the next step to use the energy check up and initiated an action plan. It was found that the majority of those businesses that did not progress further than the savings calculator had potential savings of less than five per cent of their electricity bill. It would appear that, for these businesses, there may not have been a significant enough saving to incentivise them to continue. Some of the businesses who had potential savings of greater than five per cent but didn't progress, were renting their business premises and may have been constrained in implementing some of the required action.



5.4 Energy insight workshops

108 participants attended one of the four energy insight breakfast workshops. The workshops were viewed by participants as the most relevant, practical and valuable offering of the Watt Savers project, with 98% of workshop participants stated they would recommend the workshop to others. 95% of participants viewing a breakfast workshop to be convenient and working well with their schedules and 93% of participants felt the interactive nature of the workshops to be valuable.

5.5 Financing assistance information

Watt Savers partnered with Energex and CEFC to promote synergies to their programs (Energex *Positive Payback* funding and CEFC financing through FlexiGroup) to help overcome capital constraints to make energy efficiency actions. Promoting financial assistance to create stronger drivers for action was a key function of both the website and the Energy Insight Workshops, as well as project and the energy advisory staff also linked SMEs with financial assistance information. This was a popular source of information with 13% of SMEs engaged in the program requested more information on the finance assistance available.

Eight businesses received funding through the Positive Payback program, for making energy efficiency improvements that resulted in a permanent reduction in their demand. On average the energy efficiency improvements spend was \$19,000, with an average payback period of 2.9 years. This resulted in a permanent reduction of 8.125kW for each business. Post-program survey results indicated there was a significant increase in requests for low-cost finance as a result of SMEs participating in the program, and at the time of writing this report FlexiGroup had received another seven applications for finance.

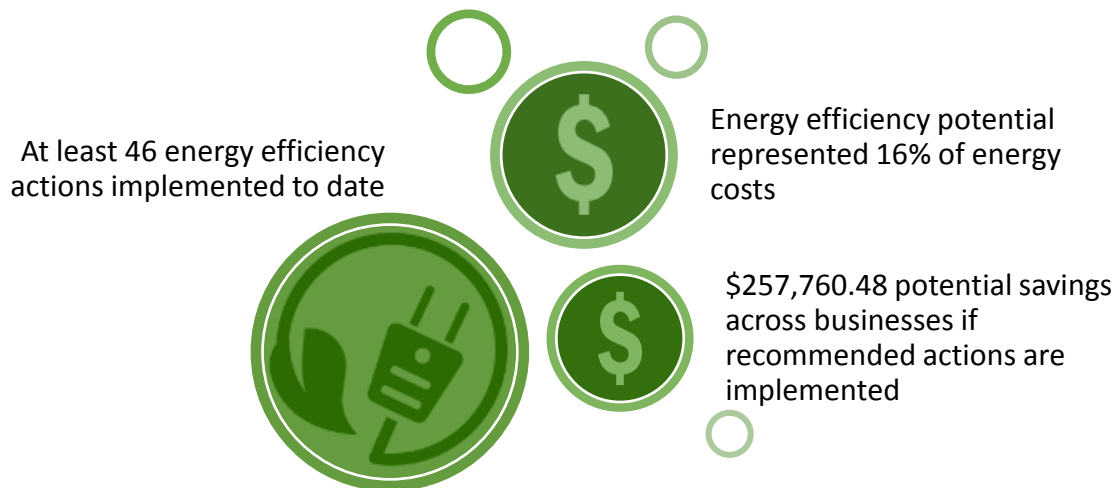
5.6 Onsite audit reports

During the project one in four participants requested an onsite energy audit, of which 60 were undertaken. More than 80 per cent of the SMEs who completed an audit reported the process was convenient and to be a value adding exercise, citing the most beneficial aspects of the audit process were:

- The audit report, which was self-explanatory, comprehensive and took a holistic view of the premises.

- The thorough approach and attention to detail, which ensured every aspect of energy consumption was considered.
- Identifying the greatest energy consumption areas.

Based on the audit reports:



6.0 Project outcomes

Undertaking energy efficiency practices requires a great deal of motivation for a small business or community organisation, however with the right information and the right support, the benefits and payback are well worth the investment.

Watt Savers provides a positive example of the economic and environmental benefits of increasing the energy efficiency of our smaller commercial energy users, demonstrating that, through tailored, solutions-driven education and targeted engagement, businesses can be empowered to better understand their role and make informed decisions about their energy consumption and adopting energy efficient practices.

Watt Savers successfully delivered positive project outcomes, which can be leveraged for use in a broad range of businesses and community organisations beyond the SME market in Brisbane.



6.1 Results

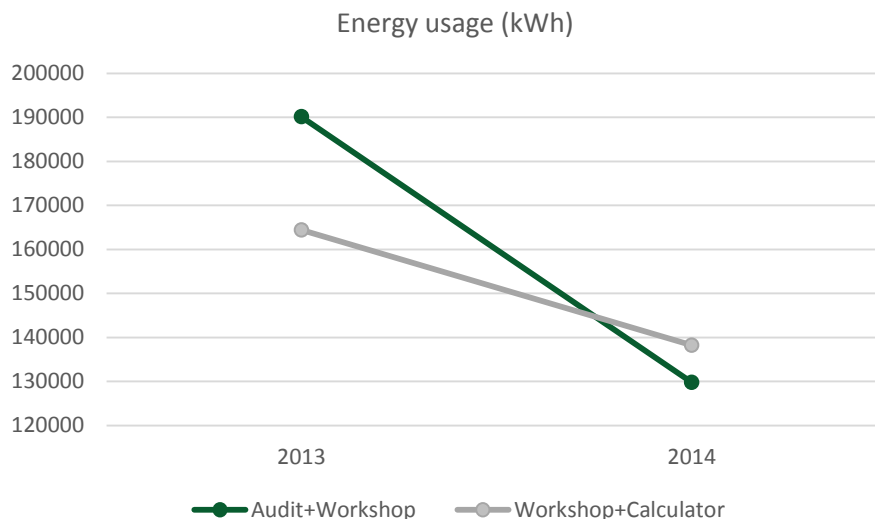
In conjunction with its evaluation partner, University of Southern Queensland, CitySmart conducted rigorous data collection and analysis of program performance to identify the following results:

1. It is proven that Watt Savers empowers and supports SMEs and community organisations to take energy efficiency actions through accessible information tools and products to understand and identify energy saving opportunities.
 - 338 participants registered to Watt Savers (exceeded target of 300)
 - 558 positive actions undertaken by SMEs – such as requesting information for financial assistance, turning air conditioners to recommended temperatures, turning off lights and computers when not in use (exceeded target of 300).
 - More than two thirds of Watt Savers project participants indicated they felt more informed about energy efficiency issues after using the Watt Savers program.
 - When SMEs adopted the knowledge and learnings from the information provided through Watt Savers they reduced, on average, their energy costs by 4% per annum.
2. Having a suite of tools provides flexibility and convenience for SMEs to engage with the project in the manner that suits their unique circumstances and challenges. Each tool is well honed and proven and can stand alone or can be complimented by other tools in the suite. Best results occurred when the tools were used in conjunction with at least one other tool.
 - The participants viewed:
 - The audits to be the most convenient tool
 - The workshops to be the most relevant, practical and valuable
 - The website to be the most useful.
 - 100% take-up of the audit offering (72 audits requested, 60 out of 60 offered were undertaken)
 - 98% of participants reported they would recommend workshops to their business network



- 95% of SMEs that attended workshops stated the timing worked well with their schedules
- 94% of workshop participants found the workshops to be valuable, useful and offer quality information
- 82% of SMEs who received an audit found it convenient
- Using offline and online tools in unison has a higher impact on energy reduction than using tools in isolation. Analysis showed positive trends where participants who used a combination of tools offered by Watt Savers.
- Watt Savers participants who used the calculator and audit had lower energy consumption than those participants who didn't use the tools (audit = mean difference of 15,818kWh/year; calculator = mean difference of 13,305kWh/year). Attendance of a workshop alone didn't have a reduction on energy usage, however participants who combined the use of the workshop and either an audit or calculator experienced energy savings, as demonstrated in Figure 1

Figure 1 Total energy usage for tool combinations





3. The Watt Savers project is a trigger designed to build an appetite for change in organisations that have previously considered energy efficiency as low priority or have never considered taking action. Watt Savers is a first step in a cascade effect that raises real opportunities that set SMEs on a long term path to find efficiencies and take action.
- 53% increase in companies motivated to implement energy efficiency practices as a result of Watt Savers.
 - 46 actions undertaken as a result of onsite energy audit, with indications that further actions will be implemented in the future.
 - 13% of engaged SMEs sought information about financial assistance, of which 8 businesses have already received funding for permanently reducing their daily peak demand with a permanent reduction of 69kW. Project feedback from SMEs and partners has indicated that additional energy efficiency upgrades (for example heating, ventilation and air conditioning (HVAC)) are being planned for future rollout.

“The demand reduction achieved by Watt Savers participants’ has contributed towards deferring network infrastructure spend in the future. Deferring network infrastructure spend will have a positive impact on a customer’s network component of their electricity bill with less costs being passed on.”

Greg Flynn, Demand Manager Delivery Manager, Energex

Appendix 5 highlights how Watt Savers delivered against the key performance measures aligned to the project objectives.



6.2 Promoting synergies with other programs

CitySmart saw Watt Savers as a platform to enhance existing knowledge and to leverage the capacity of consortia members and suppliers in order to encourage long-term energy efficiency among SMEs and community groups engaged.

Energex Positive Payback Program	Watt Savers had a close alignment with the Energex Positive Payback Program. This enabled Energex to educate the SMEs about the benefits, on an individual basis and as part of a network, of lowering their peak electricity demand. This also provided an opportunity for Energex to engage with suppliers and project managers in the electrical industry who could become 'champions' for the Energex SME energy efficiency platform.
Energy Insight Workshop exhibitors	Several exhibitors indicated they received new business opportunities and/or sales at the Watt Savers Energy Insight Workshops, including one major sale, which resulted in a full retrofit of lighting for a commercial building.
CitySmart corporate partner matching	<p>CitySmart were able to match corporate partners with Watt Savers participants to support them in undertaking energy efficiency actions, for example, CSR Bradford, who completed a lighting upgrade at the Queensland Theatre Company.</p> <p>Energy Retailers were invited to the Energy Insight Workshops to present to each of the industry groups and to discuss tariffs and cost savings on offer to participants.</p> <p>CitySmart was also able to include their corporate partner network in the workshops, and negotiate discounted rates at program venues (e.g. the final workshop was at the Novotel), which benefited participants.</p>



7.0 Budget

Watt Savers project was delivered within budget.

	2012/13	2013/14	2014/15	Total
Revenue				
Funding requested through EEIG program	\$558,282	\$214,722	\$85,892	\$858,896
Cash contribution from other contributors	\$60,000			\$60,000
Interest revenue	\$7,791	\$5,910	\$2,955	\$16,656
In-kind contributions	\$195,252	\$133,653	\$58,295	\$387,200
Total revenue	\$821,325	\$354,285	\$147,142	\$1,322,752
Expenditure				
Total cost of project	\$630,181	\$463,882	\$228,689	\$1,322,752

8.0 Lessons learnt

CitySmart successfully delivered a tailored program that addressed SMEs specific needs in reducing their energy consumption. The research and evaluation undertaken throughout the program confirm the real and tangible benefits of a robust, research-driven project centred on educating and empowering (SMEs) about energy efficiency practices. The outcomes delivered and lessons learnt have provided reliable evidence to support ongoing investment in the program, as well as contributing valuable insights to the SME sector and industry more broadly.

8.1 Key learnings

Strong relationships will result in recruitment success

Recruitment activity was a resource intensive activity. The project had a target of recruiting 300 businesses and early trend analysis resulted in the deployment of a second recruitment phase to achieve this. It became evident that recruitment efforts can be more successful if they are founded on strong relationships with recruitment partners. Establishing trust and aligning the Watt Savers brand with the key message and relationship the recruitment partner's brand has with the target audience are key success factors. The recruitment effort (time and resources) can be significantly reduced and the success rate increased when there is an alignment of recruitment channels with these attributes.



Offering a suite of tools enables greater engagement

Watt Savers participants demonstrated an appetite for information as well as products and services to help them implement their energy efficiency actions. Offering a suite of tools and in a range of convenient ways ensures that participants can better engage with energy efficiency information. CitySmart observed that the online tools were more useful for small businesses, whereas the onsite audits were better suited to larger, medium-size businesses. Participants gained the most benefit from accessing a variety of the information tools available. Businesses that used multiple tools – for example, attending a workshop in addition to undertaking an audit - had greater results than employing one component in isolation.

Sophisticated systems provide flexible options for participants

Watt Savers developed online systems, including the website that utilised sophisticated business logic software. This enabled the participants to access data that was relevant to their specific industry sector. During the program's post implementation review, CitySmart identified opportunities to further develop this system in order to enable greater flexibility for users to access and utilise tools. For example, the calculator tools were designed to drive greater action by requiring the user to access them in a predetermined sequence (Savings Calculator, followed by the Energy Check-up and so on) – the system is likely to yield greater results if participants would access and engage in the tools in an order that suits their needs.

Convenience is critical to SMEs

Convenience is also critical to the SME target group. This means that programs like Watt Savers need to work within their schedules and timeframes. This was particularly evident in the attendance of the Energy Insight Workshops, which were held over breakfast, as this best suited small businesses. Programs such as Watt Savers need to communicate frequently with participants, provide regular updates and reinforce the key messages and reminders for required action.

Calls to action must have immediate relevance

The calls to action need to be specific and have immediate relevancy to the SME. The 'next steps' and action plans also need to be provided in a convenient and accessible manner. Similarly, simple and quick mechanisms should be available to participants to provide feedback on their actions taken. By ensuring this, CitySmart envisage greater engagement from the SMEs in reporting back and providing information on actions undertaken.



8.2 Project methodology learnings

Program design and timeframes

The greatest constraint on SMEs is time and cost, which often results in businesses taking a more conservative approach to energy reduction strategies. SMEs are also more likely to focus on undertaking one activity at a time due to resource and budget constraints, which impacts on the time taken to implement action. The Watt Savers project (In-Field Phase) was completed over 13 months (July 2013 to August 2014) with participants signing up consistently over that period. It was evident that this timeframe was too short to reveal the full potential and benefits of actions arising and being implemented as a result of participating in the project. Programs such as Watt Savers plant the seed for energy efficiency and provide opportunities to set SMES on a long-term path to find efficiencies and take action.

Make the sign-up process quick and easy

The volume of information required up-front (on the website sign-on) may have been a deterrent to participate, especially given the time constraints of the target audience and will be refined for future program intakes. Other data collection mechanisms can be used during the program to capture further information from the participants.

Education and awareness

It was evident during the project that SMEs needed support and education in how to effectively interpret their energy bill. For example, SMEs on demand tariffs did not fully understand the network charges, how they are calculated and the correlation between their behaviour (i.e. energy use) and reductions in the network component of the bill. As a result of this insight, future Watt Savers programs will have a stronger emphasis on education, behaviour change and staff engagement specifically targeted at businesses that are on demand tariffs particularly as these businesses would benefit most from funding through the Energex Positive Payback program.

Evaluation and measurements

Interpreting the energy consumption data provided by Energex proved challenging as the format of the data followed energy industry specifications. The project team addressed this by developing a bespoke solution in the CRM that enabled the energy data to be summarised for reporting against each business.



8.3 Deliverables learnings

Engagement

The Watt Savers website was identified as the most useful online engagement channel, however there are opportunities to leverage this tool by more clearly articulating the value proposition upfront. As expected, the face-to-face services provided greater engagement with participants, despite the convenience and accessibility of the online engagement tools. Participants felt the Energy Insight Workshops were the most relevant, practical and valuable element of the Watt Savers project.

However Watt Savers findings show that energy efficiency information provision alone is not enough to affect a reduction in energy usage. When provision of information (such as workshop) is used in combination with an audit or the energy efficiency calculator, positive changes in energy usage is likely to take place. It therefore seems that the practical information components of Watt Savers, such as the audits and business case tools are essential components to an energy efficiency program.

Onsite Audits

The onsite energy audits provided a valuable opportunity for consortium partner referral and several businesses that completed an audit subsequently gained funding through the Energex Positive Payback scheme. The audits proved to be better suited to medium-size businesses with post-analysis indicating that the businesses that hadn't opted to undertake an audit only did so believing they were too small to reap the full benefits of an audit as opposed to not seeing the value of undertaking the exercise.

9.0 Conclusion

Watt Savers provides a positive exemplar that sustainability and economic benefits go hand in hand. Through tailored, solutions-driven education and targeted engagement, businesses are empowered to better understand their role in adopting energy efficient business and to realise the significant cost saving. The opportunity to extend Watt Savers into larger segments of the market is rich and the program is tailored to be able to service and support a broader audience.

CitySmart is committed to delivering a future-focused program that can empower a greater pool of participants beyond the 330 plus SMEs that are already engaged in undertaking positive energy efficiency actions. To achieve this CitySmart is currently exploring funding models that would enable the whole program or elements of the program to continue once the EEIG funding program has been completed.




Energy efficiency pays off and increasing energy efficiency quickly results in businesses being able to significantly reduce costs and as an innovative energy partner, Watt Savers has demonstrated that on average, businesses can reduce four per cent of their stationary energy costs. It makes a lot of sense to think about efficiently using energy - the challenge is making the shift from opportunity to action.

Watt Savers was designed to build an appetite for greater energy awareness, particularly in organisations that have previously considered energy efficiency as low priority or have never considered taking action, and to create an impetus for long-term sustainable change. Outcomes and learning from the project have enabled Watt Savers to create a business model for SME energy reduction that can be rolled out to a broader audience.





10.0 Appendices

Appendix 1: Watt Savers Consortium

 <p>CITYSMART Brisbane City Council's Sustainability Agency</p>	<p>CitySmart is Brisbane’s sustainability agency. Recognised in Australia for their innovative approaches to sustainability, CitySmart deliver commercial benefits for their clients by utilising proven technologies that achieve sustainable outcomes without compromising on business imperatives. As the lead agency, CitySmart was responsible for the project management, governance, marketing and communications, recruitment and engagement, project delivery, data management and program reporting.</p>
	<p>Rio Tinto is a leading global mining and metals company that pride themselves on providing the products relied upon by the construction, communication, recreation, transport, healthcare and renewable energy sectors. As a leading global mining and metals business, Rio Tinto is committed to contributing to the development of new approaches that tackle environmental challenges, including climate change.</p> <p>Rio Tinto has 1,400 energy suppliers in the greater Brisbane area with the majority SMEs. Given the economic challenges facing their suppliers, Rio Tinto supported Watt Savers as a recruitment channel recognising the opportunity it provided for SME suppliers to become more energy efficient and to reduce operating costs.</p>
 <p>Business South Bank Well connected</p>	<p>Business South Bank (BSB) is a membership-based organisation with more than 120 corporate members representing a workforce of more than 10,000. Since 1999, BSB has played a significant role in guiding the development of the South Bank precinct to become a thriving commercial, retail, cultural, tourism and educational hub. By using Watt Savers as a recruitment channel, BSB strengthened their objective of making the South Bank precinct the most sustainable in Australia, and as a result of BSB’s involvement with</p>



	<p>Watt Savers, they were shortlisted as Finalists in the 2014 Lord Mayor's Business Award for Sustainability.</p>
	<p>The Australian Centre for Sustainable Business and Development (ACSBD) is one of the key research centres at the University of Southern Queensland. The Centre supports an applied research program dedicated to promoting sustainable development through innovations in business and community sustainability. The Centre's multi-disciplinary research team provides organisational level research and interventions to improve a broad range of business and sustainability performance indicators including; eco efficiency, financial performance, leadership and cultural change, business model improvement, reporting and governance, information systems, and employee engagement, wellbeing, health and safety. ACSBD's role on the Watt Savers project was to evaluate the project and to provide content for the information products.</p>
	<p>Energex manages energy distribution networks and delivers world-class energy products, services and expertise across South East Queensland. They provide distribution services to close to 1.4 million domestic and business connections, delivering electricity to a population base of approximately 3.2 million people. Energex has a strong reputation for network asset management capabilities including, specialised engineering services, metering applications and energy solutions, and they are committed to providing energy solutions that are economically, socially and environmentally sustainable. Energex contributed to the Watt Savers project by assisting in the development of information products and tools relating to technical and energy saving and providing energy consumption data through Metering Dynamics. Through the Positive Payback Business Program Energex provided funding opportunities for Watt Savers' participants.</p>
	<p>Clean Energy Finance Corporation (CEFC) – formerly Low Carbon</p>



Australia - pioneered the development of innovative models and solutions for financing energy efficiency. CEFC partnered with FlexiGroup to offer financial products in the SME markets and provided access to Watt Savers participants for the financing of energy efficiency capital upgrades and projects.

Appendix 2: Case study results

Business name	Case study description
The Ship Inn South Bank <i>Hotel and restaurant</i>	<p>Drivers: To improve their brand, achieve savings and become the leading hospitality venue in sustainability.</p> <p>Actions: A lighting upgrade, minor changes to equipment and improved behaviour changes and attitudes towards saving energy.</p> <p>Outcomes: 21 per cent reduction in their energy bill and a savings of \$10,795 per annum, sustainable-brand integrity, increased customers and improved quality of service.</p>
Flowers of the World South Bank <i>Boutique florist, café and gift shop</i>	<p>Drivers: To improve their brand and café experience, achieve savings, become the leading florist known for sourcing local flowers and café produce and to encourage repeat business.</p> <p>Actions: Turned up their refrigerator temperatures to a level higher than industry norm, which resulted in positive effects on products, replaced lights with LED lights and better utilised natural light, increased staff engagement.</p> <p>Outcomes: 33 per cent reduction in their energy bill, 20 per cent increase in revenue during an economic downturn, which was attributed their sustainability approach), an improved brand.</p>
ThomsonAdsett Fortitude Valley <i>Architecture firm</i>	<p>Drivers: To reduce costs and dependency on air conditioning and artificial lighting.</p> <p>Actions: Natural ventilation and lighting improvements (south-facing skylights, saw-toothed roof with high-level glazing, auto roller blinds and tints were installed.)</p> <p>Outcomes: \$72,000 savings on electricity bills and a reduction in staff absenteeism due to illness.</p>



Additionally two case studies - Berwicks Office Technology and Queensland Theatre Company - were developed based on actions taken as a direct result of participation in Watt Savers.

Business name	Case study description
<p>Berwicks Office Technology, South Brisbane</p>	<p>Drivers: Exceeding their energy provider’s allowable daily level. If Berwicks didn’t reduce their energy consumption, they would have to invest significant funds in increased power-delivery infrastructure.</p> <p>Actions: Replaced fluoro lights with LED lights in their showroom and garage and staff behaviour change and improved attitudes to energy consumption. Will also be investigating heating ventilation air conditioning and cooling improvements.</p> <p>Outcomes: An estimated 30,000kWh savings per annum.</p>
<p>Queensland Theatre Company</p>	<p>Drivers: To achieve savings and adopt more sustainable energy practices.</p> <p>Actions: Lighting upgrade of an entire floor, behavioural changes and modifying air conditioning temperatures.</p> <p>Outcomes: Received funding from the Energex Positive Payback program and reduced their energy consumption by more than 34,000kWh, which resulted in a 10 per cent saving on their energy bill. Queensland Theatre Company are now looking at implementing other sustainability initiatives, with the cost savings on energy getting redirected to invest other projects that will benefit communities. A video testimonial was created showcasing Queensland Theatre Company’s successes and can be viewed on the Watt Savers website: http://www.wattsavers.com.au/case-studies/Queensland-Theatre-Company.</p>

Appendix 3: Watt Savers Sign Up page

Figure 1 Screenshot of the sign up page

QUEENSLAND WATTS SAVERS

Sign up

Step 1 PROVIDE YOUR DETAILS Step 2 TERMS AND CONDITIONS Step 3 AUTHORISE YOUR ACCOUNT Step 4 COMPLETE

Welcome to Watt Savers. You are about to take your first steps on a simple energy saving journey for your business.

The cost of electricity is only going up so to tackle these rising costs, Watt Savers is here to help you reduce the amount you use.

Once you've signed up you'll have immediate free access to quick and easy tools, tips and advice you can use at your convenience to help you make a significant dent in these operating costs.

Watt Savers is designed for you, the small and medium business owner, so what are you waiting for? Take a minute now to sign up below and start to unlock your potential savings.

The competition to win an on-site energy audit has now closed. [Click here](#) for terms and conditions.

BUSINESS DETAILS

Business name *

Unit No. / Level Street No. *

Street Name * Street Type *
- Street Type -

Suburb *

State * Post Code *

Queensland

Do you lease or own your own premises? *

- Select a value -

How did you hear * *

- Select a value -

If you heard in a different way, how did you hear?

Industry sector *

- Select a value -

If you work in a different industry sector, what is it?

No. of full time equivalent staff *

- Select a value -

National Meter Identifier

PRIMARY CONTACT DETAILS (e.g. general manager)

First name * Last name *

Email *

Position

Work phone number *
07

Mobile number

SECONDARY CONTACT DETAILS (e.g. operation manager)

First name Last name

Position

Email

Work phone number
07

Mobile number

LOGIN DETAILS

Username *

Password *

Password confirmation *

Please a password for the new account in both fields. Password must be at least 8 characters.

Remember me

Next >

Graphs showing the breakdown of participants signed up by channel, industry, size and occupancy status:

Figure 2 Participants by channel

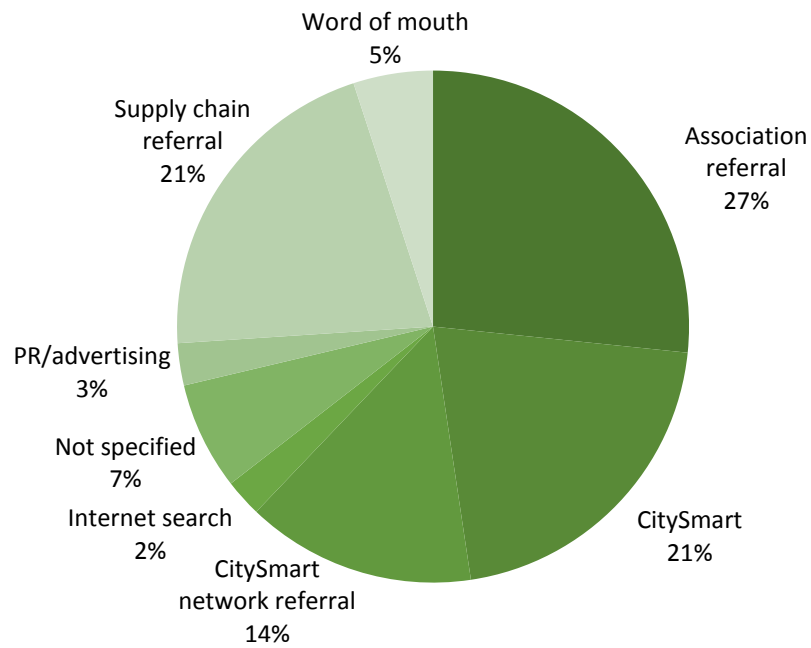


Figure 3 Participants by industry

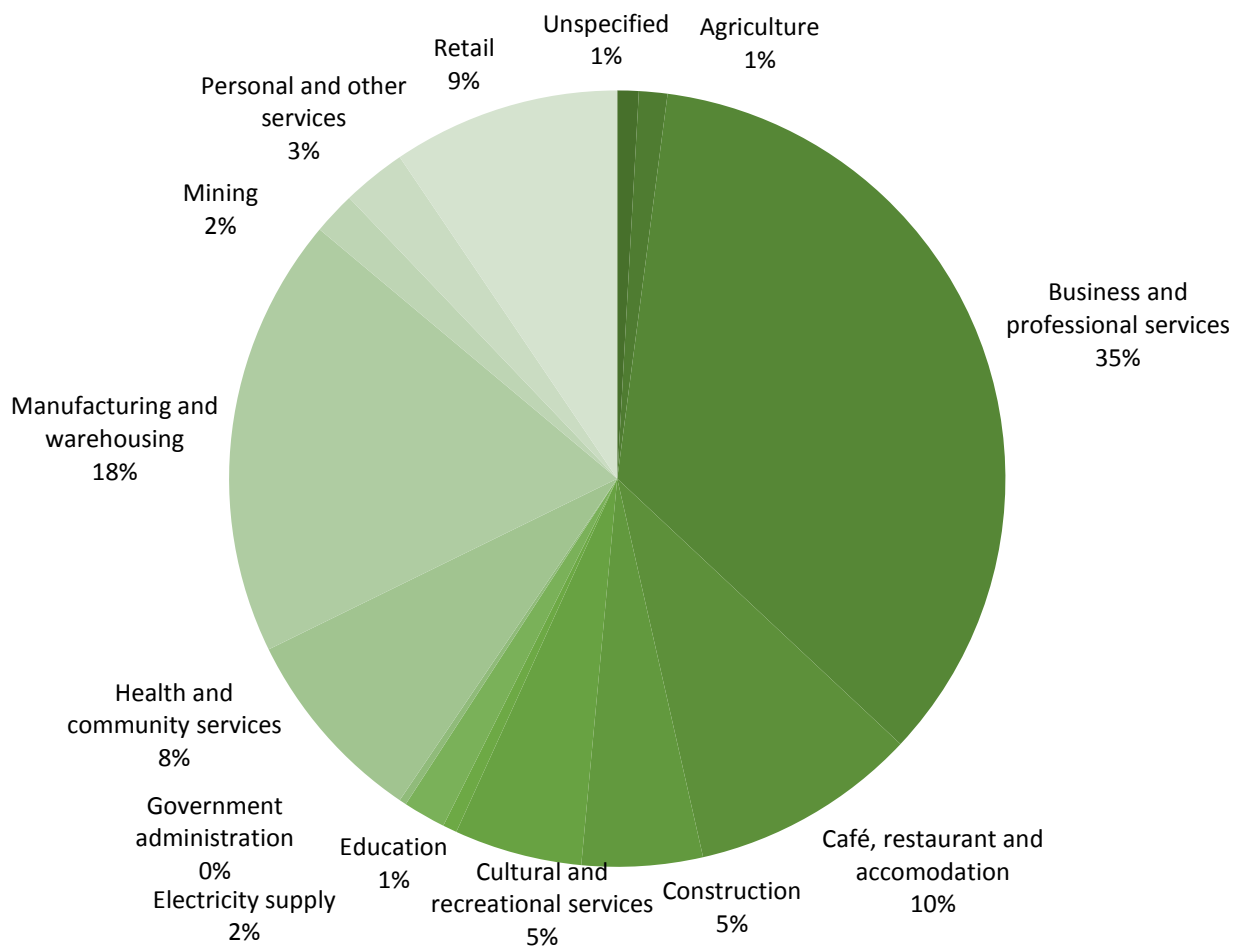


Figure 4 Participants by business size

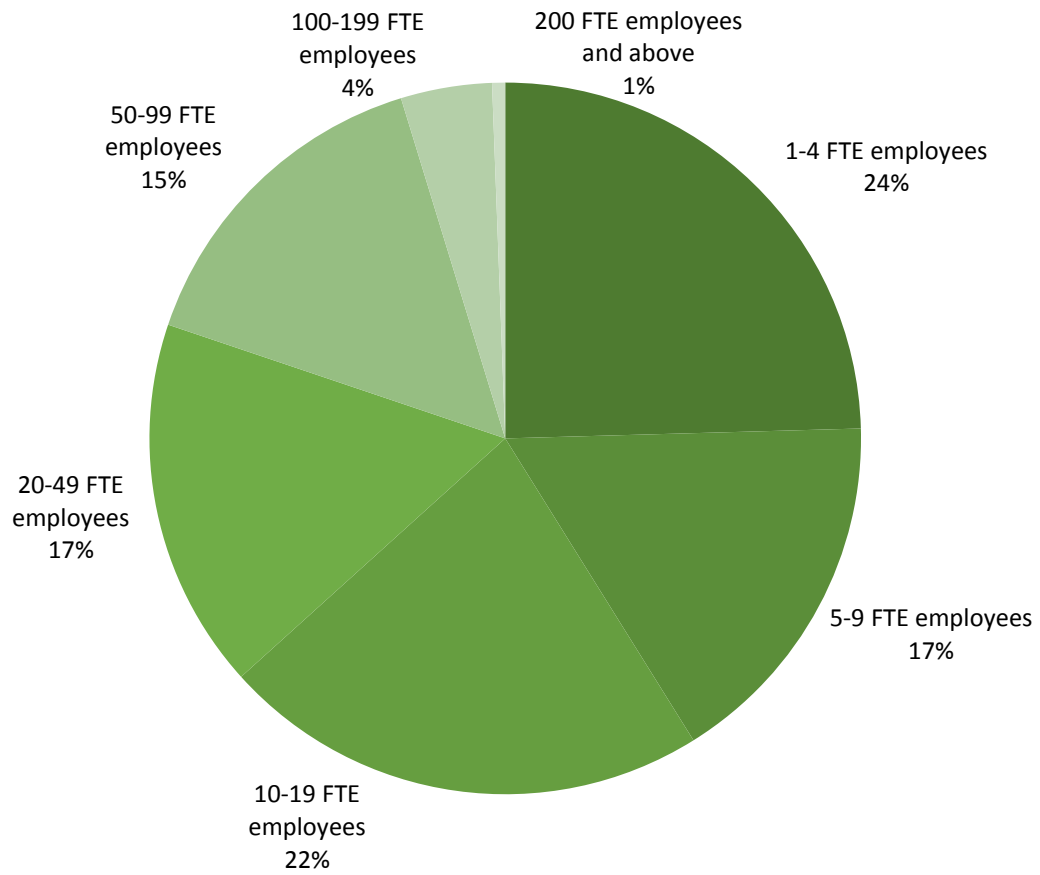
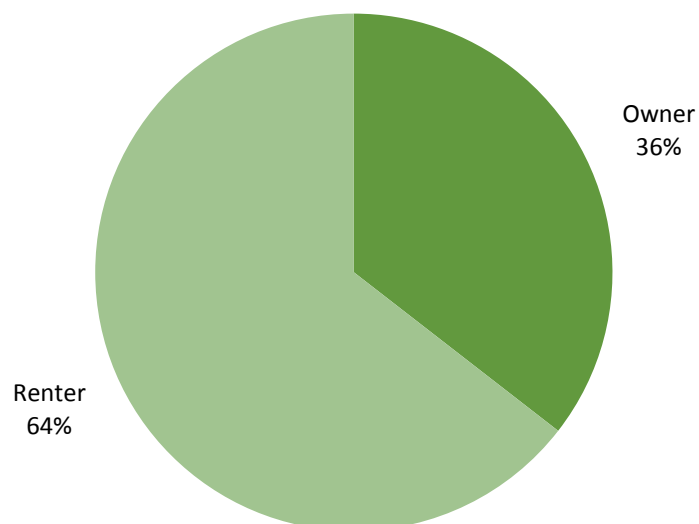


Figure 5 Participants by occupancy status





Appendix 4: Calculator, energy check-up and action plan

How the calculators work

To complete the savings calculator, the participant engaged with offline elements, such as their electricity bill or counted the number of light bulbs in their premise, to complete the savings calculator. Based on what was entered, a potential savings amount was displayed to the participant.

Savings Calculator

Get out your latest energy bill and fill in the details here to see how much your business could be saving.

Your industry type is **Café, restaurants and accommodation** No. of full time equivalent staff *

What is your current cost for electricity per kw/hr? * c/kwh Your average quarterly bill value * \$

How many hours a day do you operate? * How many days a week do you operate? *

National Meter Identifier ⓘ

Lighting

Fluorescent lights ⓘ Number of lights currently Average wattage

Incandescent lights ⓘ Number of lights currently Average wattage

Halogen lights ⓘ Number of lights currently Average wattage

Equipment

How many computers, printers, TVs do you have? How many of these are left on overnight?

Hot water

Are you on an off-peak tariff for your hot water? * Yes No

Calculate

Based on the information you have provided above, you can potentially save **\$175.06** per quarter.

RESULTS

NEXT STEP
Build your energy profile

After completing the Savings Calculator, the participant could progress to build their energy profile through the Energy Check Up. This provided more general, industry-specific information and was used to build an Action Plan for the business to implement.

Energy areas were presented to the SMEs depending on their industry and are shown in Table 2.

Table 2: Energy areas applicable by industry



	Lighting	HVAC	Hot Water	Refrigeration	Fuel Substitution	Motors
Retail	Y	Y	Y	N	N	N
Business and Professional Services	Y	Y	Y	N	N	N
Café, restaurants and accommodation	Y	Y	Y	Y	Y	N
Manufacturing/Warehousing	Y	Y	Y	N	Y	Y
Construction	Y	Y	Y	N	N	Y
Other	Y	Y	Y	Y	N	N



Energy check up

Energy check up

Get down to the nuts and bolts of your current energy use with this more in-depth analysis tool.

Your industry type is **Café, restaurants and accommodation**

What is your current cost for electricity per kw/hr **32 c/kwh** Your average quarterly bill value \$ **5000**

How many hours a day do you operate? **13** How many days a week do you operate? **7**

Lighting

Fluorescent lights ⓘ Number of lights currently **15** Average wattage **40**

Incandescent lights ⓘ Number of lights currently **0** Average wattage

Halogen lights ⓘ Number of lights currently **0** Average wattage

Hot water

Are you on an off-peak tariff for your hot water? Yes No

Refrigeration

No. of units * Avg. nameplate rating ⓘ kW Energy efficiency rating **2 Star**

Fuel substitution

Gas stoves No. of units * Avg. nameplate rating kW In operation: hours/day
 days/week

Electric stoves No. of units * Avg. nameplate rating kW In operation: hours/day
 days/week

Heating and cooling

No. of units * Avg. Size **0 - 4kw** Run temp. °C In operation: hours/day days/week

RESULTS		NEXT STEP Action Plan
Energy use	% of quarterly bill	
Hot Water	4.6%	
Lighting	4.5%	

(for hints and tips on saving energy in these areas refer to your Action Plan and the available Fact Sheets)

At the successful completion of the energy check-up an Action Plan was generated with specific actions the SME could opt in to implement. Regular emails with energy efficiency tips and hints related to each action were generated to participants to remind them to take steps to implement the action.



Submit >		
Action one - Lighting v	Your actions	Your action progress
Lighting - Tip 1 - Natural light & lighting use Incorporate as much natural light into your work place as possible and turn off the lights when you are leaving a room for more than 10 minutes.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -- Select -- v	<input type="checkbox"/> I have completed this action <input type="checkbox"/> I need 1 week v to complete this action <input type="checkbox"/> I will not undertake this action Reason: -- Select -- v
Lighting - Tip 2 - Sensors, fittings & fixtures Replace your existing lighting with more energy efficient lighting (LEDs or CFLs) and install automatic sensors.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Too expensive v	<input type="checkbox"/> I have completed this action <input type="checkbox"/> I need 1 week v to complete this action <input type="checkbox"/> I will not undertake this action Reason: -- Select -- v
Lighting - Tip 3 - After hours lighting Reduce any night lighting by turning off internal showroom signs and display case lights when you are closed.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -- Select -- v	<input type="checkbox"/> I have completed this action <input type="checkbox"/> I need 1 week v to complete this action <input type="checkbox"/> I will not undertake this action Reason: -- Select -- v
Action two - Electrical Equipment >	Your actions	Your action progress
Action three - Hot water >	Your actions	Your action progress
Submit >		

The Action Plan was designed to focus on one action at a time and the idea was for participants to log back into the website to update on their progress.

Your Watt Savers Action Plan email

From: Watt Savers [mailto:do_not_reply@wattsavers.com.au]

Sent: Friday, 28 February 2014 8:53 AM

To: Cherie Pasion

Subject: Your Watt Savers Action Plan



QUEENSLAND

WATTS SAVERS

Your Action Plan

Dear Cherie,



You have now finished developing your Action Plan!
Based on the data that you have entered into Watt Savers, coupled with what we know about the Retail industry, the following actions are likely to make a big difference to your workplace's energy efficiency and help reduce your power bills.



Action #1 – Lighting

- Tip 1 - Maximise natural light & minimise lighting use
 - Tip 2 - Install lighting sensors and LED or CFL lights
 - Tip 3 - Reduce the use of after hours lighting
- Estimated time for completion: 1-3 weeks



Action #2 - Electrical Equipment

- Tip 1 - Use power save functions on your I.T. gear
 - Tip 2 - Print at a lower resolution
 - Tip 3 - Install and use plugin timers
- Estimated time for completion: 1-3 weeks



Action #3 - Heating, ventilation & cooling

Tip 1 - Set A/C to 24°C in summer & 18°C in winter

Tip 2 - Service your HVAC equipment regularly

Tip 3 - Help your A/C to circulate air by using fans

Estimated time for completion: 1-3 weeks

Now it's over to you to put this plan into action. Watt Savers will email you when it is time to tell us which tips you will turn into action, but you can get thinking about it now.

We've built some terrific tools to help you get started. Take a look at Fact Sheets available on each of these areas of action on the [Watt Savers web site](#).

Start saving watts now

This activity received funding from the Department of Industry as part of the energy efficiency information grants program.



Disclaimer: The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any of the information or advice contained herein.

Example of Action Tips email communication

From: Watt Savers [mailto:do_not_reply@wattsavers.com.au]

Sent: Friday, 2 May 2014 10:50 AM

To: Cherie Pasion

Subject: Watt Savers Tips – Lighting



QUEENSLAND

WATTS SAVERS

Brainstorm - Lighting

Action #1

Hi Cherie,

Now that you have developed your energy efficiency Action Plan, it's time to start thinking about your first energy efficiency changes, which will be focussing on lighting.

Lighting chews up around 40% of all energy used in an office. That means for office spending \$2000 per quarter on electricity, around \$800 could account for lighting alone. Increasing your lighting efficiency is one of the easiest and fastest ways to positively impact your power bills greenhouse gas emissions.



Tips for your Action Plan

Below are tips for you to consider implementing to reduce your workplace lighting energy usage. Start thinking about these tips and work out which you are going to implement. It will help to consult your Savings Calculator, Energy Profile and Action Plan during this process.



Tip 1 – Natural light & lighting use

Incorporate natural light in to your workplace – such as skylights, windows, mirrors and shutters. Also, don't block existing natural light - open blinds and remove large objects in windows. When using electric lighting, ensure that you turn off the lights when leaving a room for more than 10 minutes.



Tip 2 - Sensors, fittings & fixtures

Replace your existing lighting with more energy efficient options (LEDs or CFLs) and install automatic sensors. Technology has come a long way in the eco-lighting space and more options are becoming available all the time. Discover the wide range of options you can now choose from.



Tip 3 - After hours lighting

Reduce any after hours lighting on your business premises by turning off unnecessary internal lighting when you are closed. Flicking the switch on items like showroom signs and display case lights when they are not required can save a significant amount of energy.

What do I do now?

- Get together with your management colleagues (if relevant).
- Review your completed [Savings Calculator](#).
- Review your completed [Energy Check Up](#).
- Review what you are already doing in your business to save energy.
- Decide which of the above tips your business is going to commit to turning into action – you can commit to all 3 if they are suitable!
- Start planning the implementation of these tips.

What happens next?

- Watt Savers will email you in five days to prompt you to record your selections in your Action Plan.

Start saving watts now



*This activity received funding from the Department of Industry
as part of the energy efficiency information grants program.*



Disclaimer: The views expressed herein are not necessarily the views of the Commonwealth of Australia,
and the Commonwealth does not accept responsibility for any of the information or advice contained herein.

Unsubscribe | This email was sent by Wattsavers.

Appendix 5: Delivering on the project measures

The following table outlines the actuals versus key performance indicators of the program:

Target KPI	Actual KPI
300 website registrations.	<ul style="list-style-type: none"> 338 participants registered to the program
75% of engaged SMEs attending a workshop (maximum of 225).	<ul style="list-style-type: none"> 108 SMEs attended workshops
300 positive actions taken by engaged SMEs.	<ul style="list-style-type: none"> 53% increase in companies being motivated to implement energy efficient practices as result of Watt Savers. 558 actions have been undertaken by participants Two Watt Savers participants were recognised (winner and finalist) at the Lord Mayor's Business Awards for Sustainability
20% of engaged SMEs undertake an onsite energy audit (maximum 60).	<ul style="list-style-type: none"> 72 businesses requested an audit and 60 businesses have received an onsite energy audit.
5 new case studies developed.	<ul style="list-style-type: none"> 5 high quality case studies developed
5% of engaged SMEs request information on low cost finance.	<ul style="list-style-type: none"> 13% of engaged SMEs have gained access to the low cost finance webpage. 7% of SMEs applied for financial assistance to support capital upgrades.
90% of engaged SMEs have gained additional knowledge on energy efficiency.	<ul style="list-style-type: none"> More than two thirds of Watt Savers program participants indicated they felt more informed about energy efficiency issues after using the Watt Savers project.
80% of engaged SMEs deem the information to be useful, convenient, relevant, practical and valuable.	<ul style="list-style-type: none"> 94% of workshop participants found the workshops to be valuable, useful and offer quality information. 98% of participants reported that they would recommend the workshops to their business network. 82% of SMEs who received an Audit found it



	convenient.
5% reduction in stationary energy costs	<ul style="list-style-type: none"> Based on meter data from 39 businesses, the overall total reduction in energy consumption was 396,903kWh, an average of 10,177kWh per business. Average of \$597.97 annual energy cost savings per business, which equates to a 4% reduction in average energy costs. Potential savings, if recommendations from Watt Savers were adopted, was 8%.
Energy savings for SME between \$173.95 - \$8,696.25 on average.	<ul style="list-style-type: none"> Online savings calculators indicate that average saving is \$623 per annum and the average savings as per audit results is \$4,296.
Peak demand for engaged SMEs is reduced by 2% when behavioural changes are adopted.	<ul style="list-style-type: none"> 8 businesses received funding for reducing their peak demand, resulting in a permanent reduction of 69kW in total which has contributed towards deferring network infrastructure spend.

Appendix 6: Glossary

Term	Description
Action	<p>Activity or action undertaken by a Watt Savers participant as a result of their interaction with the project.</p> <p>Actions could include information/knowledge gathering, such as their attendance at a workshop, viewing of a factsheet.</p> <p>Actions could also be practical activities, such as advising us they have changed their light or appliances switching behaviours or have undertaken an upgrade of lights or HVAC.</p>
Action Plan	<p>Industry based action plan developed by Watt Savers for SMEs providing a highly organised and prioritised plan of action for energy efficiency which when followed will deliver energy and cost savings.</p>
Advisory Service	<p>Provides information to address each SMEs unique circumstance. Advisory services include onsite energy audits and a telephone advisory service.</p>



Australian Energy Market Operator	The Australian Energy Market Operator (AEMO) delivers an array of gas and electricity market, operational, development and planning functions. EMO also facilitates electricity and gas full retail contestability, overseeing these retail markets in eastern and southern Australia.
Behaviour change	Refers to the transformation of a SMEs conduct, activities and approach, particularly around energy efficiency as a result of participating in Watt Savers.
Business association	An organisation that specialises in the support of the SME sector providing business networking, workshops, mentoring and support.
Business consortium	A group of specialist businesses put together to create a collaborative and innovative consortium. Comprising key corporate partners from academic, industrial and energy sectors – the consortium were tasked with supporting the project objectives and providing advice, expertise and services relating to their specialisation.
CRM	Customer relationship management (<i>CRM</i>) is a system for managing a company's interactions with current and future Watt Savers participants. The Watt Savers CRM uses technology to organise, automate and capture data and communications.
Demand tariffs	A type of energy tariff that is demand based and measures the amount of power required as well as the amount of power used by a SME. This means customers are charged for their network demand as well as the energy they use.
Energy check-up	A more in-depth analysis tool than the savings calculator. The energy check-up is an interactive industry specific analysis



	tool that initiates an action plan.
Energy efficiency	Energy efficiency is a way of managing and restraining the growth in energy consumption within a SME. Something is more energy efficient if it delivers more services for the same energy input, or the same services for less energy input.
Energy Efficiency Information Grants (EEIG)	The EEIG is a \$34 million merit-based, competitive grants program established by the Commonwealth Government to assist industry associations and non-profits to provide practical, tailored energy efficiency information to small and medium enterprises (SMEs) and community organisations.
Energex Positive Payback program	Positive Payback rewards businesses who connect energy hungry appliances to economy tariffs or install technologies that reduce energy during peak periods.
Engagement	Engagement refers to the undertaking of specific actions as a result of participating in the Watt Savers project. Participant engagement occurs when a participant interacting with any touch points provided as part of the project, for example this may be signing up to Watt Savers, opening a Watt Savers email or completing the savings calculator.
eDirect marketing (eDM)	Electronic Direct Marketing delivered online and via email marketing during the Watt Savers project.
Financial assistance	Forms of finance for energy efficiency capital upgrades. This included grants, such as Energex's Positive Payback Program as well as loans through FlexiGroup (Clean Energy Finance Corporation).
HVAC	Heating, ventilation and air conditioning. Three functions often combined in one system in modern buildings.



kWh	The kilowatt-hour (symbolised kWh) is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour.
Lighting upgrade	Lighting upgrades is a cost effective measure to improve SME energy efficiency through the introduction of upgraded and energy efficient lighting.
MWh	The megawatt-hour (symbolised MWh) is a unit of energy equivalent to 1,000 kilowatts or 1 million watts of power expended for one hour.
National meter identifier	The NMI is the National Meter Identifier – a number used to identify the electricity meter at a property.
Savings calculator	Online tool developed to assist SMEs in identifying high-level potential cost savings. Based on the information entered, for example, from their energy bill and the number of light bulbs in their premise, a potential savings amount was displayed to the participant.
SME - Small to medium enterprise	Businesses with a turnover of less than \$100 million, and/or with less than 200 full-time equivalent (FTE) employees.
Staff engagement	Employee engagement is a workplace approach designed to ensure that employees are committed to their organisation's energy efficiency goals and values, motivated to contribute to organisational success.
Stationary energy costs	Refers to energy consumption and direct uses of energy in the manufacturing, construction and commercial sectors.
Supply chain	A supply chain is a system of organisations, people, activities,



	<p>information, and resources involved in moving a product or service from supplier to customer.</p>
<p>Workshop (Energy Insight Breakfast)</p>	<p>A series of interactive, face-to-face educational energy insight workshops available to SMEs during the project. Workshops were delivered over breakfast and were designed to allow time-poor SMEs to build their knowledge and to easily access and engage with key contacts and energy experts.</p>