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| Community Energy Efficiency Program Evaluation |
| **Impact Evaluation** |
| April 2017 |
| Evaluators:  Bridgette Hargreave, Jamos McAlester, Niki Walters, Elize Wium and Kevin Yao |

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The Evaluation Unit would like to acknowledge and thank all stakeholders and programme participants for their cooperation. The unit is grateful for the assistance provided by the Community, Small Business and International Science Branch in AusIndustry, and the Energy Division in the Department of Environment and Energy, whose efforts contributed to the accuracy and quality of the report.

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Glossary

|  |  |
| --- | --- |
| CPRS | Carbon Pollution Reduction Scheme |
| CEEP | Community Energy Efficiency Program |
| DIIS | Department of Industry, Innovation and Science |
| ERF | Emissions Reduction Fund |
| ETS | Emissions Trading Scheme |
| HVAC | Heating, Ventilation and Air Conditioning |
| LED | Light Emitting Diode |
| LIEEP | Low Income Energy Efficiency Programme |
| LSE | Low Socio-economic Status |
| MJ | Megajoule (1 million joules) |
| NEEP | National Energy Productivity Plan |
| TJ | Terajoule (1 million megajoules) |

# 

# Executive Summary

Based on the final project reports provided by grant recipients, there is clear evidence the programme assisted local councils and community groups to increase their energy efficiency. While the current Australian Government does not plan to introduce an emissions trading scheme (ETS), these projects are expected to continue benefiting the communities in the longer term through reduced energy costs. The projects will also continue to improve energy efficiency in Australia more broadly, by demonstrating the financial savings that can be achieved in the broader community, and by helping Australia to reach its carbon pollution reduction target in 2020.

## The Community Energy Efficiency Program

The Community Energy Efficiency Program (CEEP) was introduced in 2012 as part of the Low Carbon Communities initiative. The CEEP was a competitive merit-based grants programme that provided co-funding to local governments and non-profit community organisations to improve their energy efficiency. The programme commenced in February 2012, with the final round closing in February 2013. Funding for all projects ceased by June 2016.

The objectives of the CEEP were to:

1. Support a range of local councils and community organisations to increase the energy efficiency of different types of non‑residential council and community use buildings, facilities and lighting. Round Two added the words ‘*particularly where this would benefit low socio‑economic and other disadvantaged communities or support energy efficiency in regional and rural councils.’*
2. Demonstrate and encourage the adoption of improved energy management practices within councils, organisations and the broader community.

The programme was also expected to provide the following co-benefits[[1]](#footnote-2):

* Minimise energy consumption and costs, in order to mitigate the impacts of the carbon price on local councils and community groups
* Contribute to the national effort to reduce greenhouse gas emissions
* Build the knowledge and capacity of energy efficiency industries in Australia
* Support competitive energy efficiency technology and equipment manufacturers in Australia
* Assist recipients to provide better services and improved building amenities to their communities.

Under the programme, 171 grants were awarded totalling $113.3 million. However, seven projects were terminated and eleven were withdrawn before funding agreements were executed leaving 153 completed projects and a total of $96.3 million paid in grant funding by the close of the programme. On average, these grants accounted for 47 per cent of the total project cost of all projects. Grant recipients directly contributed $117.3 million to the projects.

This report presents the findings and recommendations arising from an evaluation of the impact of the CEEP.

The evaluation encountered several issues with the integrity and reliability of the energy efficiency data provided by grant recipients in the final project reports. These issues are described in more detail in Section 5.5.

The department commissioned ACIL Allen Consulting to conduct a separate evaluation of the governance and administration of the programme. *The ACIL Allen Evaluation Report* was approved by the CEEP Steering Committee in August 2016. For completeness, the findings and recommendations from *The ACIL Allen Report* have been incorporated into Section 8 of this report. A full copy of the ACIL Allen report can be found at [www.industry.gov.au/OCE](file://prod.protected.ind/dochub/DocHubShare/EAS/Business%20Functions/Visual%20Analytics/Projects/Evaluation%20Reports/CEEP/CEEP%20Report/www.industry.gov.au/OCE).

## Appropriateness — Policy Intent

Carbon pollution is a form of negative externality caused by household and business activity. Externalities are a type of market failure that exist when the price of a good or service does not reflect its full costs or benefits. Carbon pollution imposes costs on other sectors of the economy that are not factored into the price of goods and services produced.

In order to address this externality and encourage a reduction in Australia’s carbon emissions, the former government introduced a range of measures in the 2008–09 Budget, including the Carbon Pollution Reduction Scheme (CPRS). Through the CPRS, the government intended to introduce an ETS. The government believed the ETS would disproportionately affect local councils and community groups, through a sudden increase in energy prices. It offered support through the CEEP to help these groups improve their energy efficiency, reduce their energy use, and subsequently mitigate the financial impact of the introduction of the ETS.

The ETS was not implemented as planned. However, the CEEP projects provided a significant improvement in energy efficiency and a large reduction in energy use by local councils and community groups (see Section 5.2). As most of the infrastructure projects have an expected life span of 10–20 years, the grant recipients will continue to benefit from these financial savings for many years. The reduction in carbon pollution will also continue for many years, assisting Australia in its efforts to reach its carbon pollution reduction goal by 2020.

The CEEP was consistent with the objectives of the former government when the programme was introduced in 2011. It was also consistent with the objectives of the former government’s 2011 strategy *Securing a Clean Energy Future.* The current government’s Climate Action Plan centres on the Emissions Reduction Fund (ERF) which supports Australian business and local councils to take practical, direct action to reduce emissions. The *National Energy Productivity Plan* (NEEP) also supports activities to improve energy productivity in government operations. Thus the CEEP is consistent with the current government’s policy objectives.

## Effectiveness – Programme Impact

According to the final project report data provided by grant recipients, all but two projects achieved energy efficiency improvements. The projects resulted in a combined total saving of approximately 350 TJ of energy per annum. This is equivalent to the energy used by over 6,800 Australian homes. [[2]](#footnote-3) It is clear from these results that the programme achieved the objectives of improving the energy efficiency, and reducing the energy costs of grant recipients. However, it is difficult to assess the extent to which the programme met the Government’s expectations, as no performance targets were established at the commencement of the programme.

Based on the final project report data provided by grant recipients, over an assumed fifteen-year project life span the programme cost the Australian Government approximately $19,000 to reduce one TJ of energy. The total cost (including both CEEP grant funding and contributions by grant recipients) equates to approximately $38,000 to reduce one TJ of energy. [[3]](#footnote-4)

The evaluation was unable to assess the cost-effectiveness of the programme because of the data limitations (described below and in Section 5.5). In addition, there was no information available on the results achieved by comparable domestic and international programmes. The evaluation considered the price that would be paid by the average Australian household for one TJ of energy ($29,280). [[4]](#footnote-5) However, this comparison does not include the co-benefits of the programme or the reduction in carbon emissions achieved. The energy saving results, together with the qualitative information from grant recipients, suggests that the programme was beneficial when co-benefits were included. However, a more detailed assessment of co-benefits would be required in order to measure the programme’s cost-effectiveness.

Most of the CEEP projects were provided to upgrade space lighting (indoor and outdoor). Many projects involved more than one type of technology upgrade. However, grant recipient data was collated according to ‘main’ technology type. This made it difficult to assess the extent of each technology type used, and the corresponding energy reductions achieved. Based on the grant recipient data, space lighting provided the highest return on investment of all technology types implemented, closely followed by street lighting.

A small number of grant recipients provided evidence of the impact of direct community engagement activities (such as public workshops and seminars). This included surveys of participants directly after the events, and longer-term surveys to measure implementation of energy efficiency measures. While only a small sample size, the results show a significant improvement in energy efficiency by households who participated in the events. No information was provided by grant recipients on the impact of less direct community engagement activities (such as advertising, brochures and websites).

The evaluation was constrained by limitations encountered with the energy efficiency data. Inconsistent baseline energy figures, an inadequate post-reporting period, and the influence of external factors (such as seasonal changes to energy use and changes to energy prices), all restricted the reliability of the data. Due to the inconsistent energy measurements used by grant recipients, the data required a significant amount of collating and formatting by AusIndustry before it was provided to the evaluators. Further detail on the data limitations is provided in Section 5.5.

## Co-benefits

Qualitative evidence provided by grant recipients suggests the CEEP produced a wide range of co-benefits including: improved facility amenities; reduced maintenance costs; increased operating hours; improved employee/client health and safety; increased sales; and increased services available to the community. There was no quantitative data provided by grant recipients to measure the specific level of co-benefits produced by the CEEP. Information was analysed from the comments provided by grant recipients in the final project reports.

The CEEP often enabled technology upgrades that may not have otherwise occurred. More than half of the grant recipients indicated that without the CEEP grant they would not have begun the energy efficiency upgrades, or would have delayed their projects by several years.

There was no quantitative information available to measure the impact of the CEEP on the broader energy efficiency industry in Australia. Interviews with a small number of industry stakeholders suggest that the CEEP may have supported the growth of Australian manufacturers of LEDs. One stakeholder claimed that the CEEP allowed grant recipients to afford significantly larger street light projects. He believed this increased the demand for LEDs, which reduced the manufacturing price by 50 per cent.

## Unintended Consequences

The evaluation considered the comments provided in grant recipient final reports to assess whether there have been any unintended effects of the programme on grant recipients. Some grant recipients reported that after the installation of LED streetlights, their power companies increased prices to compensate for the revenue lost through reduced maintenance requirements. Typically, this was observed in regional and remote locations. Two grant recipients (delivering a joint project) had to reduce the scope of their street light replacement programme due to the requirement of paying a gifting tax to the relevant state government (approximately $1 million). This was caused by issues with the ownership of street light poles (owned by the network provider). These issues may require further consideration in the design of future energy efficiency programmes. The evaluation did not find evidence of significant unintended consequences as a result of the programme.

# Findings, Recommendations and Lessons Learned

## Impact Evaluation

| FINDINGS – Impact Evaluation | |
| --- | --- |
| 1 | The CEEP was appropriately designed, at the time it was introduced, to mitigate the financial impact of the introduction of an ETS on local councils and community groups. Despite the ETS not being implemented, the CEEP projects will continue to deliver financial benefits to grant recipients, and environmental benefits to Australia. |
| 2. | The CEEP has been consistent with the strategic objectives of the Australian Government since the programme was introduced in 2011. In particular, it is consistent with the current government’s programme objectives and approach, through the Emissions Reduction Fund and the National Energy Productivity Plan. |
| 3. | All but two projects achieved energy efficiency improvements. The projects resulted in a combined total saving of approximately 350 TJ per annum. |
| 4 | Grant recipient data was collated according to ‘main’ technology type. This made it difficult to assess the extent of each technology type used. However, the data suggest that the projects with the highest return on investment were space and street lighting. |
| 5. | Limited evidence was provided by grant recipients to measure the benefits of community awareness activities. However, a small sample of information suggests a significant improvement in energy efficiency by households who participated in direct engagement activities (public workshops and seminars). |
| 6. | Qualitative evidence provided by grant recipients suggests the CEEP produced a wide range of co-benefits including: improved facility amenities; reduced maintenance costs; increased operating hours; improved employee/client health and safety; increased sales; and increased services available to the community. |
| 7. | The CEEP often enabled technology upgrades that may not have otherwise occurred. Grant recipients commonly reported that the grant allowed projects to be brought forward by many years, or to fund upgrades that were not planned at all due to financial constraints. |
| 8. | There was no quantitative information available to measure the impact of the CEEP on the broader energy efficiency industry in Australia. Interviews with a small number of industry stakeholders suggest that CEEP may have supported the growth of Australian manufacturers of LEDs. |
| 9. | The evaluation did not find any evidence of significant unintended consequences as a result of the programme. However, some barriers did exist (in a limited number of cases) that reduced the effectiveness of the programme. This included issues with the ownership of street light poles, and the pricing structure for street lighting. |

| RECOMMENDATIONS – Impact Evaluation | |
| --- | --- |
| 1. | An evaluation strategy should be part of the design of new programmes to ensure that data needed to measure programme impact are carefully considered and data collection requirements are clear from the time a programme is launched. |
| 2. | Consideration should be given to ways of collecting a larger sample size of data to measure the impact of community engagement activities on energy efficiency. |
| 3. | Grant reporting through a SmartForm should be established so that information is collected in a consistent manner. This will reduce the amount of collating required by the department, and will simplify reporting processes for grant recipients. |
| 4. | Acknowledging the need to minimise the reporting burden on grant recipients, future programmes should consider possible methods of collecting data to measure co-benefits. |
| 5. | Energy efficiency programmes should consider monitoring the energy costs of grant recipients, to assess whether the financial benefits of reduced energy consumption are being received by end users. The ownership of street lighting infrastructure should also be considered. |

## Governance and Administration Evaluation (advice provided by ACIL Allen Consulting) – see [www.industry.gov.au/OCE](file://prod.protected.ind/dochub/DocHubShare/EAS/Business%20Functions/Visual%20Analytics/Projects/Evaluation%20Reports/CEEP/CEEP%20Report/www.industry.gov.au/OCE) for the full report

| FINDINGS – Governance and Administration Evaluation | |
| --- | --- |
| 10. | The overall CEEP application process and assessment processes were clear to applicants. The guidelines were seen as highly effective in providing clarity for the application process and requirements. A small percentage of grant recipients found the programme’s data collection and reporting requirements were unclear. |
| 11. | Machinery of government changes were disruptive to the negotiation of funding agreements (and also to programme delivery). The high turnover of programme administrators also affected project continuity and stakeholder relationships. |
| 12. | Compressed delivery timeframes caused by protracted negotiations of the funding agreements were cited (by some Round One grant recipients) as a key hurdle to effective project delivery. |
| 13. | Just over half of CEEP grant recipients agreed the reporting requirements were reasonable. However nearly one quarter of Round One and Round Two grant recipients considered that funding agreements were impractical, too complicated and had too frequent milestone reporting. |
| 14. | Grant recipients found managing the projects more challenging than they had envisaged at the project concept and design stage, given the size and nature of the projects relative to their day-to-day responsibilities. In some cases, recipients also lacked the technical skills to effectively manage the data collection and reporting. |

| RECOMMENDATIONS – Governance and Administration Evaluation | |
| --- | --- |
| 6. | Ensure stakeholders and grant recipients establish a shared understanding of the data required to measure the programme’s effectiveness. For example investigate ways to establish an agreed baseline for energy use prior to the programme, and expectations to collect one full year of energy consumption data post-project. |
| 7. | Consider compliance thresholds for small, medium and large projects to ensure the level of required compliance reporting is commensurate with the size, complexity, and delivery timeframe of a project. |
| 8. | Consider whether it would be cost effective to engage energy auditors directly for future energy efficiency programmes. This would provide economies of scale and consistent methods of assessment, and would reduce the amount of reporting for grant recipients. |
| 9. | The department should work with grant applicants to help them understand the skill sets and likely time and budget allocation for project management. Grant applicants should be encouraged to allow adequate funds to ensure that appropriately experienced and capable project managers are engaged. |
| 10. | The success stories of grant recipients should be disseminated to key bodies, such as local government associations, relevant state government authorities and industry associations, to showcase the energy savings achieved and promote further upgrades to energy efficient technologies. |

## Lessons Learned

The following lessons were noted from evaluations conducted on the CEEP.

| LESSONS LEARNED | |
| --- | --- |
| 1. | Despite the limitations of the data collected from grant recipients, the available information suggests that co-funded energy efficiency upgrades with local councils and community organisations, are a cost-effective way of reducing energy consumption. |
| 2. | The use of a panel of independent experts to assess grant applications can be very useful. Such panels can also play a role in providing feedback to applicants on their proposals. |
| 3. | A detailed evaluation plan should be developed for energy efficiency programmes, including: key performance indicators, data sources, collection methods and parameters for analysis. This plan should be communicated to potential grant applicants. |

# Introduction

The CEEP was introduced in 2012 as a competitive grants programme delivered through the $80 million *Low Carbon Communities* initiative.

Funding rounds were held in February and October 2012. The funding model required recipients to co-invest at rates between one third and two thirds of the project cost.

Round One awarded 63 grants from 295 applications. Round Two approved 107 grants from 241 applications. These grants ranged from $10,000 to $5.3 million each. In total, 153 projects were completed, seven projects were terminated, and eleven projects withdrew from the process. A total of $96.3 million was paid in grant funding by the close of the programme. On average, these grants accounted for 47 per cent of the total project cost. Grant recipients directly contributed $117.3 million to the cost of the projects.

## The Programme Objectives

The objectives of the CEEP were to:

1. Support a range of local councils and community organisations to increase the energy efficiency of different types of non‑residential council and community use buildings, facilities and lighting. Round Two added the words *‘particularly where this would benefit low socio‑economic and other disadvantaged communities or support energy efficiency in regional and rural councils.’*
2. Demonstrate and encourage the adoption of improved energy management practices within councils, organisations and the broader community.

These objectives were to be achieved through the retrofit of energy-efficient technologies to existing sites and facilities, and by demonstrating energy efficiency management practices to the broader community.

The programme was expected to provide the following co-benefits[[5]](#footnote-6):

* Minimise energy consumption and costs, in order to mitigate the impacts of the carbon price on local councils and community groups
* Contribute to the national effort to reduce greenhouse gas emissions
* Build the knowledge and capacity of energy efficiency industries in Australia
* Support competitive energy efficiency technology and equipment manufacturers in Australia
* Assist recipients to provide better services and improved building amenities to their communities.

## Project Funding

Subject to eligibility and merit-based criteria, the minimum grant was $10,000 for non–profit community organisations or small regional or rural councils. Single organisations could apply for grants of up to $2 million and group applicants for grants of up to $5 million.

Round One applicants were required to contribute at least half of the total project costs. Regional and rural councils were able to provide up to 25 per cent of the total project cost in the form of in‑kind contributions calculated according to standard rates.

A funding model was developed for Round Two that provided increased opportunities for projects that focused on low socio-economic communities and areas of disadvantage (see Table 3.1). The revised model better targeted projects that were less likely to have been implemented without the CEEP grant.

Table 3.1 CEEP Round Two Funding Model

| Applicant Category | Lower Funding Limit | | | Minimum Applicant Contribution | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Projects from applicants not having LSE status and without LSE focus | Projects from councils with LSE status or non‑LSE status applicants proposing projects with LSE focus | Projects from applicants not having LSE status and without LSE focus | | Projects from councils with LSE status or non‑LSE status applicants proposing projects with LSE focus |
| Non‑profit community organisations | $10,000 | $10,000 | One‑half of total project cost | | One‑third of total project cost |
| Small regional and rural councils | $10,000 | $10,000 | One‑half of total project cost | | One‑third of total project cost |
| Medium‑sized regional councils | $35,000 | $20,000 | Two‑thirds of total project cost | | One‑third of total project cost |
| Metropolitan and large regional councils | $50,000 | $30,000 | Two‑thirds of total project cost | | One‑third of total project cost |

## Assessment Process

Applications established as meeting eligibility criteria, such as grant amount and technology type, were given to an independent Programme Advisory Committee. The Committee developed technological, financial and project financial risk matrices. Proposed projects were assessed using the risk matrices and assigned a merit score to reflect the extent to which they would deliver against the criteria. These criteria were augmented between Round One and Round Two, as shown in Table 3.2.

Table 3.2. Merit Criteria for CEEP Grant Applications

| Round One | | Round Two | |
| --- | --- | --- | --- |
| Criterion | Weight  (per cent) | Criterion | Weight  (per cent) |
| Energy Efficiency improvement potential | 30 | Energy efficiency Improvement potential | 20 |
| Potential to encourage improved energy management practices | 30 | Targeting low socio-economic and other disadvantaged communities | 20 |
| Project design, funding and management | 20 | Potential to encourage improved energy management practices | 20 |
| Value for Money | 20 | Project design, funding and management | 20 |
| Value for money | 20 |

## Programme Delivery

Proposed projects were required to achieve clear, measurable gains in energy efficiency or a reduction in energy use. Eligible activities included energy audits; upgrades or retrofits to buildings and facilities; upgrades to outdoor lighting; basic energy efficiency items; monitoring and reporting; educational activities and raising community awareness; administration support; and financial auditing costs. The guidelines specified ineligible activities and upgrades, which included the purchase or installation of renewable energy generation systems and energy efficiency upgrades to new buildings or extensions.

Organisations eligible for funding included local government bodies, not-for-profit organisations, building owners, and combinations thereof. Ineligible organisations included for-profit organisations; government agencies; public hospitals; primary or secondary schools; tertiary education institutes; aged care facilities; individuals; and informal groups.

Applications were assessed for eligibility by the department. In turn, the Programme Advisory Committee assessed eligible applications. Successful applications were announced by the Minister. Recipients entered funding agreements within 60 days from the announcement of their grant.

Initial payments not exceeding 40 per cent of the grant were made available following the execution of the funding agreement. Further payments were provided against agreed milestones. Recipients were required to submit financial audits on the completion of the project.

More than 60 per cent of applicants were informed within seven days that their complete, eligible applications were received and were being assessed. The outcome of that assessment was announced by the Minister, on average, 32 days after application.

## This Evaluation

This report presents the findings and recommendations arising from an impact evaluation of the CEEP, undertaken between March and December 2016. The timing and nature of this evaluation is driven by the protocol that terminating Tier Two departmental programmes of strategic importance should be evaluated either by, or in partnership with, the Evaluation Unit.

The key evaluation questions addressed the following areas: the appropriateness of the programme (its policy intent); the effectiveness of the programme (its impact); and the co-benefits that have been realised through the programme.

Impact evaluations are usually large, complex evaluations that assess the achievements of a programme. Where possible they consider concepts such as a ‘counterfactual’ and ‘additionality’. In other words, impact evaluations seek to compare programme outcomes with a prediction of what would have happened in the absence of the programme, and may include research on programme alternatives to enable the comparison of results.

This evaluation did not include the efficiency of the CEEP. The department engaged ACIL Allen Consulting to conduct a separate evaluation of the administration of the programme. To inform the evaluation, ACIL Allen considered the final reports provided by grant recipients, an online survey of grant recipients, and telephone interviews with a small number of grant recipients. The ACIL Allen Evaluation Report was approved by the Steering Committee in August 2016. For completeness, a summary of the key findings is provided in Section 8 of this report. A full copy of the final ACIL Allen Evaluation Report is available on [www.industry.gov.au/OCE](http://www.industry.gov.au/OCE).

### Governance

The Steering Committee was established to provide oversight and direction for the evaluation. This was to ensure the Terms of Reference were addressed and that appropriate methodologies were used to provide evidence for the conclusions drawn in the evaluation report.

The Steering Committee comprised the following members:

* Dr Abrie Swanepoel, Mr Tim Bradley and Mr Andrew Lalor (Chairs), General Managers, Economic and Analytical Services Division. These positions were held at different times by each General Manager during the evaluation
* Mr Gene McGlynn, General Manager, Community, Small Business and International Science Branch, AusIndustry
* Ms Joann Wilkie and Mr Mark Weaver, General Managers, Energy Division, Department of Environment and Energy. These positions were held at different times by each General Manager during the evaluation.

### Evaluation Methodology

A review of the following documents was undertaken to inform the evaluation findings and recommendations.

* The original New Policy Proposal and formative documentation
* Programme guidelines
* CEEP’s Performance Measurement, Reporting and Evaluation Strategy;
* The final reports provided by grant recipients
* Interviews with a small number of industry stakeholders

Energy efficiency data was provided by AusIndustry. The data was gathered from final reports submitted by grant recipients. The evaluation encountered several issues with the integrity and reliability of the data (see Section 5.5).

The evaluation also considered qualitative information from the grant recipient final project reports. A small number of industry stakeholders were also interviewed to gain an understanding of the impact of the programme on the broader energy efficiency industry in Australia.

The terms of reference stated that the evaluation would conduct interviews with grant recipients. However, it was decided that sufficient information was already available from the grant recipients’ final reports, and that no additional information would be gained by conducting interviews.

# Appropriateness – Policy Intent

## Rationale for government intervention

The former Australian Government considered climate change to be a risk that would intensify if greenhouse gas emissions continued to increase. To address climate change risks the Government committed to reduce carbon pollution by five per cent from 2000 levels by 2020, and by up to 15 or 25 per cent depending on the scale of global action.[[6]](#footnote-7)

The Government identified carbon pollution as a form of negative externality caused by household and business activity. Externalities are a type of market failure that exist when the price of a good or service does not reflect its full costs or benefits. These spillover costs or benefits are borne by a third party. The Government considered that carbon pollution imposes costs on other sectors of the economy that are not factored into the price of goods and services produced.

In order to address this externality and encourage a reduction in Australia’s carbon emissions, the former Government introduced a range of measures in the 2008–09 Budget, including the Carbon Pollution Reduction Scheme(CPRS). The measures were designed to: demonstrate to Australian business the benefits of capturing efficiencies; reduce Australia's emissions; and have a positive impact on the economy.[[7]](#footnote-8)

Through the CPRS, the former government announced that it would introduce an ETS. The government believed the introduction of the proposed ETS would disproportionately affect local councils and community groups, through a sudden increase in energy prices. It offered support through the CEEP to help these groups improve their energy efficiency, reduce their energy use, and mitigate the financial impact of the introduction of the ETS.

## Consistency with government priorities

In July 2008 the Wilkins Review was released to advise the government on measures to complement an emissions trading scheme. The review recommended the establishment of a new Climate Change Action Fund. The fund would facilitate the restructuring of business inputs (labour and capital) following the introduction of a carbon price. The fund would have two components: information provision and support to facilitate business restructuring; and subsidies in the form of tax rebates or grants.[[8]](#footnote-9) The review supported the strategy of providing financial assistance to business in the short to medium term, as an incentive to adjust their operations to be more energy efficient. The CPRS was one of a suite of measures designed to demonstrate to Australian business the benefits of capturing production efficiencies and to reduce Australia’s carbon emissions.

The government considered local councils and community groups to be even more vulnerable than commercial businesses to the financial impact of the introduction of the ETS, due to their limited financial resources. It therefore announced the Low Carbon Communities Initiative (including the CEEP) to assist these groups to reduce their energy use, and thereby mitigate the expected financial impact of the planned ETS.

In the 2009–10 Budget the government announced the deferral of the CPRS, and in July 2011 it was replaced by *Securing a Clean Energy Future* (including a carbon price and later ETS). *Securing a Clean Energy Future* included assistance for businesses to adjust to energy efficient technology.

While there were several changes to the direction of the government’s climate change policies, there was consistency in the broad objectives:

* To reduce Australia’s greenhouse gas emissions at least cost
* To adapt to unavoidable climate change (adaption)
* To help shape a global solution (international)[[9]](#footnote-10)

The CEEP was consistent with the strategic objectives of the former government when the programme was introduced in 2011. It was also consistent with the objectives of the former government’s 2011 strategy *Securing a Clean Energy Future*. However, the former government envisaged that programmes like the CEEP would be a short to medium-term measure until businesses (including local councils and community groups) adjusted to a new emissions trading scheme (or carbon tax).

The current government’s Climate Action Plan centres on the Emissions Reduction Fund (ERF) which supports Australian businesses and local councils to take practical, direct action to reduce emissions. Energy efficiency improvements are one of the seven emission reduction methods listed in the ERF, including the upgrade of commercial and public lighting, refrigeration or ventilation fans, and commercial building energy efficiency.

In December 2015 the current government released the *National Energy Productivity Plan* (NEPP). The NEPP provides a framework of new and existing measures designed to coordinate efforts and accelerate improvement to deliver a 40 per cent improvement in Australia’s energy productivity. The plan includes activities to improve the energy productivity in government operations. [[10]](#footnote-11) Thus the CEEP is consistent with the current government’s policy objectives and approach to reducing carbon emissions.

## Conclusion and findings

The ETS was not implemented as planned. However, the CEEP projects provided a significant improvement in energy efficiency and a large reduction in energy use by local councils and community groups (refer to Section 5). As most of the infrastructure projects have an expected life span of 10–20 years, the grant recipients will continue to benefit from these financial savings for many years. The reduction in carbon pollution will also continue for many years, assisting Australia in our efforts to reach our carbon pollution reduction goal by 2020.

The CEEP was consistent with the objectives of the former government when the programme was introduced in 2011. It was also consistent with the objectives of the former government’s 2011 strategy *Securing a Clean Energy Future.* The current government’s Climate Action Plan centres on the Emissions Reduction Fund (ERF) which supports Australian business and local councils to take practical, direct action to reduce emissions. The *National Energy Productivity Plan* (NEEP) also supports activities to improve energy productivity in government operations. Thus the CEEP is consistent with the current government’s policy objectives.

| FINDINGS | |
| --- | --- |
| 1 | The CEEP was appropriately designed, at the time it was introduced, to mitigate the financial impact of the introduction of an ETS on local councils and community groups. Despite the ETS not being implemented, the CEEP projects will continue to deliver financial benefits to grant recipients, and environmental benefits to Australia. |
| 2. | The CEEP has been consistent with the strategic objectives of the Australian Government since the programme was introduced in 2011. In particular, it is consistent with the current government’s programme objectives and approach, through the Emissions Reduction Fund and the National Energy Productivity Plan. |

# Effectiveness – Programme Impact

As discussed in Section 3, the policy objective of the CEEP was to assist local councils and community organisations to adjust to the forecast increase in energy prices following the implementation of an ETS. It expected to do this by improving the energy efficiency of local council and community facilities, thereby reducing their energy costs. The CEEP also aimed to demonstrate the benefits of energy efficiency upgrades to the broader community.

Over the life of the programme, 171 grants were awarded totalling $113.3 million. Seven projects were terminated and 11 were withdrawn before funding agreements were executed, leaving 153 completed projects and a total of $96.3 million paid in grant funding. On average, these grants accounted for 47 per cent of the total project cost. Grant recipients directly contributed $117.3 million to the cost of the projects.

Figure 5.1: Distribution of CEEP Grants below $2 million

| he distribution is heavily skewed to the lower values.  About one third of the grants awarded were below two hundred thousand dollars. About one third were in the range of two hundred thousand dollars to six hundred thousand. One third covers the range of sixhundred thousand dollars to over 5 million dollars. |
| --- |

Notes: Ten grants lie in the range of $2–5.5 million.

Source: Programme Data, AusIndustry

## Grant Distribution

The CEEP awarded grants to projects in every State and Territory across Australia. Grants ranged from $10,000 to $5.25 million. The geographic distribution of grants was broadly proportional to the population of each State, with New South Wales receiving the largest share of grants by number (212), followed by Victoria (117).

Figure 5.2: Mean CEEP grant value (±1 SD) and maximum grant by State

| Though there are noticable differences between the states' and territories mean CEEP grant figure, the national average is within 1 standard deviation of their means, except for South Australia, Tasmania which had five small projects and the Northern Territory which had four small projects.  There is much greater variation in the maximum grants, with New South Wales, Queensland and Victoria each recieving grants in excess of four and half million dollars. The A C T recieved a three million dollar grant, Western Australia recieved a two million dollar grant. The South Australia, Tasmania and Northern Territory each recieved grants no larger than 1 million dollars. |
| --- |

Source: Programme data, AusIndustry

The Australian Capital Territory had the highest average grant value, as there were only two projects. All grants to projects in the Northern Territory and Tasmania were below the average. Only one grant awarded to South Australia was greater than the CEEP average grant value. Unlike Victoria and New South Wales, no large consortia of local councils from the Northern Territory, South Australia or Tasmania applied.

## Energy Efficiency

According to the final project report data provided by grant recipients, all but two projects achieved energy efficiency improvements. The projects that did not result in energy efficiency improvements usually experienced increases in capacity that affected their total energy use.

The projects resulted in a combined total saving of approximately 350 TJ of energy per annum. This is equivalent to the energy used by over 6,800 Australian homes. [[11]](#footnote-12) It is clear from these results that the programme achieved the objectives of improving the energy efficiency, and reducing the energy costs, of grant recipients. However, it is difficult to assess the extent to which the programme met the Government’s expectations, as no performance targets were established at the commencement of the programme.

Based on the final project report data provided by grant recipients, over an assumed fifteen-year project life span, it cost the Australian Government approximately $19,000 to reduce one TJ of energy. The total cost (including both CEEP grant funding and contributions by grant recipients) equates to approximately $38,000 to reduce one TJ of energy. [[12]](#footnote-13)

The evaluation was unable to assess the cost-effectiveness of the programme because of the data limitations (described in Section 5.5). In addition, there was no information available on the results achieved by comparable domestic and international programmes. The evaluation considered the price that would be paid by the average Australian household for one TJ of energy ($29,280). [[13]](#footnote-14) However, this comparison does not include the co-benefits of the programme or the reduction in carbon emissions achieved. The energy saving results, together with the qualitative information from grant recipients, suggests that the programme was beneficial when co-benefits were included. However, a more detailed assessment of co-benefits would be required in order to measure the programme’s cost-effectiveness.

Table 5.1 outlines the energy savings achieved for each round of the CEEP. Through Round One, 63 grants were approved, with 61 provided. The average grant value of Round One was $572,641. The average project cost (including both grant amount and contributions by grant recipients) was $1,486,840. Round One projects saved on average 2.7 TJ per year. Through Round Two, 107 grants were approved, with 92 provided. The average grant value of Round Two was $663,357. The average project cost (including both grant amount and contributions by grant recipients) was $1,322,648. Round Two projects saved on average 1.8 TJ per year.

Table 5.1: Community Energy Efficiency Program key statistics

|  | *Round One* | *Round Two* | *Total* |
| --- | --- | --- | --- |
| Grants approved | 63 | 108 | 171 |
| Projects completed | 61 | 92 | 153 |
| Grants terminated, withdrawn | 2, 0 | 5, 9 | 7, 9 |
| Grant Value $ (Average) | 572,641 | 663,357 | 627,190 |
| Project Value $ (Average) | 1,486,840 | 1,322,648 | 1,388,111 |
| Energy Savings MJ/year (Average) | 2,660,217 | 1,762,635 | 2,149,399 |

Notes: Energy Savings are indicative, rather than absolute, as a result of data collection issues.  
Source: Programme Data, AusIndustry

It is clear from the results provided above that the programme achieved the objectives of improving the energy efficiency, and reducing the energy costs, of grant recipients. However, it is difficult to assess the extent to which the programme met the government’s expectations, as no performance targets were established at the commencement of the programme. As a result, this evaluation has been unable to assess the achievements of the programme against the government’s original expectations.

## Technology Types

The eligible projects included energy efficiency upgrades or retrofits to non‑residential council or community use buildings, facilities or sites (including street lights), where the majority use was for a council or community purpose.[[14]](#footnote-15)

Table 5.2 lists the number of projects according to each technology type. Most of the CEEP projects were provided to upgrade space lighting (indoor and outdoor). This predominantly involved upgrading to LED bulbs and installing timing devices. Many projects involved more than one type of technology upgrade. However, grant recipient data was collated according to ‘main’ technology type. This has made it difficult to assess the extent of each technology type used, and the corresponding energy reductions achieved.

Table 5.2: Summary of technology types and number of sites upgraded under CEEP.

|  |  |
| --- | --- |
| Major technology type | Number of sites |
| Efficient space lighting | 279 |
| Pump/ compressor upgrade | 51 |
| Efficient street lighting | 48 |
| Improve/replace HVAC systems | 43 |
| Cogeneration or tri-generation installation | 16 |
| Efficient hot water (heat pump or solar) | 13 |
| Mixed/multiple upgrades | 13 |
| Power factor optimisation | 9 |
| Geothermal heat exchange | 7 |
| Improve building fabric / Insulation | 5 |
| Boiler/chiller upgrade | 3 |
| Industry specific equipment upgrade | 1 |
| Energy Monitoring | 1 |
| Smart Controls | 1 |

Source: Programme data, AusIndustry

This evaluation analysed the data available to assess four technology types:

1. Space lighting (replacing light bulbs with LED) (279)
2. Pump upgrades (replacing water pump systems) (51)
3. Street lighting (replacing light bulbs with LED) (48)
4. HVAC (replacing air conditioners and cooling systems) (43)

These four technology types accounted for 66 per cent of the total project costs and 53 per cent of the total energy savings achieved through the CEEP. They are often the largest consumers of electricity in non-residential buildings.[[15]](#footnote-16) For instance, non-residential HVAC systems are estimated to consume 9 per cent of electricity produced in Australia, and produce 3.6 per cent of total carbon emissions.[[16]](#footnote-17) Further, HVAC systems can be responsible for up to 60 per cent of all energy used in non-residential buildings. Table 5.3 outlines the typical benefits of converting to energy efficient replacements for these technology types.

Table 5.3: The average energy saving, life expectancy and payback period of energy efficient technology conversions for street lighting, space lighting and HVAC systems.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technology | Energy Saving | Life Expectancy | Emission Reduction (CO2 p.a) | Payback Period | Comparison |
| Street lighting (110W LED luminaire) | 55–75 per cent | 50,000 hours | 88.7 tonnes | 2.9 years | 400W mercury vapour luminaire |
| Space lighting (30W integrated LED luminaire) | 60–67 per cent | 30,000–50,000 hours | 16.5 tonnes | 3.7 years | Twin 36W T8 fluorescent luminaires |
| HVAC | 70 per cent | N/A | 786 tonnes | 12.5 years | N/A |

Notes: Average for specific technology types, which does not account for individual use or costs at the time. Payback period does not include increase in building assets and reductions in payback periods due to external funding.

Source: Office of Environment & Heritage (2014), [*Energy efficient lighting technology report*](http://www.environment.nsw.gov.au/resources/business/140017-energy-efficient-lighting-tech-rpt.pdf)

Broadly, these technologies have returned large energy savings (except for pump/compressor upgrades which provided inconsistent results). In general, the more expensive projects returned larger energy savings. Small space lighting projects were an exception, reporting a slightly higher rate of energy saving per dollar than larger space lighting projects.

Table 5.4 outlines the proportion of investment in the four identified technology types and the commensurate energy savings achieved. Space lighting provided the highest return on investment, closely followed by street lighting. The amount of energy savings achieved by upgrading street lighting may be higher than indicated, as many previously broke lights were replaced. This would have skewed the baseline energy data for street lighting projects.

Table 5.4. Proportion of total investment

|  |  |  |  |
| --- | --- | --- | --- |
| Technology type | Number of sites | Proportion of total spend (per cent) | Proportion of total energy saved (per cent) |
| Efficient space lighting | 279 | 13 | 14 |
| Pump/ compressor upgrade | 51 | 5 | 1 |
| Efficient street lighting | 49 | 36 | 31 |
| Improve/replace HVAC systems | 43 | 12 | 7 |

Notes: Proportion of spend and energy savings are drawn from project final reports. Accordingly, the accuracy of the figures is indicative rather than absolute.

Source: Programme Data, AusIndustry

## The Demonstration Effect

The second objective of the CEEP was to demonstrate and encourage the adoption of improved energy management practices within councils, organisations and the broader community. Grant recipients were encouraged to engage the community through energy efficiency awareness and educational activities. Funding for these activities was capped at 30 per cent of total project costs.

Communication plans were developed and implemented by grant recipients to raise awareness in the community of available energy efficiency measures. The most common communication methods included social media, print media and websites. The larger projects usually included more direct engagement with the public (for example workshops and public seminars).

There was no quantitative data collected from grant recipients to measure the impact of these activities. However, several grant recipients provided qualitative evidence, in their final project reports, of significant attitudinal and behavioural changes in the public following direct engagement activities. This included surveys of participants at the end of public seminars and workshops, measuring their intentions to implement energy efficiency improvements at home. These surveys indicated a strong positive response to direct public engagement activities. A small number of grant recipients also followed up their intention with additional research to measure the implementation of energy efficiency improvements (refer to CEEP Case Study One). While this research was conducted by only a very small number of grant recipients, the results indicate a significant realisation of benefits, in terms of energy efficiency improvements by participants.

In regard to less direct community engagement activities (i.e. print and broadcast advertising, brochures, and website material), no research was conducted by grant recipients to measure the impact on energy efficiency improvements in the community.

Box 5.1: CEEP Case Study One: Community Engagement

| CEEP enabled a Victorian city council to develop its public engagement programme. After installing $2.4 million of energy efficient improvements to save 11 TJ per year, the council delivered a series of 51 training workshops aimed at increasing the public’s level of engagement with energy efficiency.  The workshops were attended by 544 people, including 195 professionals working with disadvantaged groups and 271 ‘Community Ambassadors’. After receiving 20–30 hours of training, the Ambassadors shared their knowledge in workshops with a further 3,495 members of their communities. Seven groups were educated through the Ambassador training: Sudanese; Aboriginal & Torres Strait Islander; Macedonian; Burmese; Bhutanese; Spanish Seniors; and Mixed Culturally & Linguistically Diverse (CALD).  Attendance figures showed that 65 per cent of participants were from the most disadvantaged and vulnerable sectors of the community. This strongly demonstrated that the community engagement programme achieved its objective of providing energy efficiency and energy management education to disadvantaged and vulnerable sectors of the community.  The participants of these workshops reported a huge increase in energy bill literacy, understanding of the Energy Star Rating for Appliances and commitment to being energy efficient.  This training has translated into action. Through follow-up surveys, 97 per cent of participants reported significant energy savings, stemming from changes in behaviour and increased knowledge of consumer rights.   * 90 per cent are now switching off the lights when leaving a room * 85 per cent are setting the right heating and cooling temperature during winter and summer * 90 per cent have switched to energy efficient lights * 79 per cent are now aware of the star rating of appliances * 82 per cent are turning off appliances at the wall after use   This programme has won the 2015 Keep Australia Beautiful Sustainable Cities Awards for Community Government Partnerships, and the 2016 Victorian Local Governance Association Climate Award. |
| --- |

## Data Limitations

The evaluation encountered several issues with the integrity and reliability of the energy efficiency data. The following issues were noted:

1. Baseline energy usages were not consistently measured, reflecting the wide range of data management practices. Without adequate baselines, the figures calculated for energy improvements are only indicative.
2. In the absence of an adequate post-project period to assess their energy improvements, many grant recipients extrapolated their results from a very small time period (including periods of less than one month) to estimate their annual energy savings. These estimates did not account for seasonal changes to energy use, or fluctuations during the commissioning phase of new infrastructure.
3. Many sites experienced changes to building use, including increased operating hours, capacity changes and building extensions. These changes pushed up the total energy use of a building, even though there was a significant improvement in its energy efficiency. This made it difficult to assess the impact of the programme.
4. The technology upgrades were rarely installed in isolation (except street lighting). This made it difficult to assess the contribution of individual CEEP projects to the total energy savings at each site.
5. Energy savings were derived from pre and post-project energy usage only. Variability due to external factors (such as increased affordability of energy efficient technology) and the contribution of other major programmes were not accounted for. Energy savings in this evaluation are attributed solely to the CEEP projects.

## Conclusion and Findings

The fact that the projects resulted in energy savings of approximately 350 TJ of energy per annum shows that the CEEP achieved its objectives of reducing energy use. However, it is difficult to assess the extent to which the programme met the government’s expectations, as no performance targets were established at the commencement of the programme.

The results of surveys provided by grant recipients suggest a significant improvement in energy efficiency by households who participated in direct community engagement activities (public workshops and seminars). No information was provided by grant recipients on the impact of less direct community engagement activities (i.e. print and broadcast advertising, brochures, and website material).

The evaluation was constrained by limitations encountered with the energy efficiency data. Inconsistent baseline energy figures, an inadequate post-reporting period, and the influence of external factors (such as seasonal changes to energy use and changes to energy prices), all restricted the reliability of the data. Due to the inconsistent energy measurements used by grant recipients, the data required a significant amount of collating and formatting by AusIndustry before it was provided to the evaluators.

| FINDINGS | |
| --- | --- |
| 3. | All but two projects achieved energy efficiency improvements. The projects resulted in a combined total saving of approximately350 TJ per annum. |
| 4. | Grant recipient data was collated according to ‘main’ technology type. This made it difficult to assess the extent of each technology type used. However, the data suggest that the projects with the highest return on investment were space and street lighting. |
| 5. | Limited evidence was provided by grant recipients to measure the benefits of community awareness activities. However, a small sample of research suggests a significant improvement in energy efficiency by households who participated in direct engagement activities (i.e. public workshops and seminars). |

| RECOMMENDATIONS | |
| --- | --- |
| 1. | An evaluation strategy should be part of the design of new programmes to ensure that data needed to measure programme impact are carefully considered and data collection requirements are clear from the time a programme is launched. |
| 2. | Consideration should be given to ways of collecting a larger sample size of data to measure the impact of community engagement activities on energy efficiency. |
| 3. | Grant reporting through a SmartForm should be established so that information is collected in a consistent manner. This will reduce the amount of collating required by the department, and will simplify reporting processes for grant recipients. |

# Co-benefits

Co-benefits include any significant positive outcomes that did not form part of the key objectives of the programme. The CEEP was expected to provide the following co-benefits[[17]](#footnote-18):

* minimise energy consumption and costs, in order to mitigate the impacts of the carbon price on local councils and community groups
* contribute to the national effort to reduce greenhouse gas emissions
* build the knowledge and capacity of energy efficiency industries in Australia
* support competitive energy efficiency technology and equipment manufacturers in Australia
* assist recipients to provide better services and improved building amenities to their communities

There was no quantitative data provided by grant recipients to measure the specific amount of co-benefits produced by the CEEP. However, in the final project reports several grant recipients stated that co-benefits had occurred as a result of implementing their projects. Those commonly reported were: improved facility amenities; reduced maintenance costs; increased operating hours; improved employee/client health and safety; increased sales; and increased services available to the community. (See CEEP Case Study Two and CEEP Case Study Three).

More than half of the grant recipients indicated that without the CEEP grant they would not have begun the energy efficiency upgrades, or would have delayed their projects by several years. A number of grantees indicated CEEP provided a means to replace broken fixtures (such as lighting) which they could not otherwise afford.

Several grant recipients also noted that the financial savings achieved from reduced energy and maintenance costs have been re-invested into other areas of the organisation. This has allowed the communities to enjoy more or improved services.

The evaluators investigated possible methods of assessing the impact of the programme on the broader energy efficiency industry in Australia. No quantitative information was available from AusIndustry or the Energy Division, to measure the contribution of the CEEP to growth or activity in energy efficiency manufacturing and service provision.

The evaluators conducted a small number of telephone interviews with energy efficiency industry stakeholders suggested by Energy Division. One stakeholder claimed that the CEEP allowed grant recipients to afford significantly larger street light projects. He believed this increased the demand for LEDs, which reduced the manufacturing price by 50 per cent. Grant recipient final reports also suggested that the majority of street light projects used Australian manufactured LEDs. This suggests that the programme supported the growth of Australian manufacturers of LEDs.

Under the CEEP requirements, projects receiving grants of over $1 million were to provide opportunities for local businesses in the project. Many grant recipient final reports stated that local businesses were employed in their projects. In some cases, these projects involved new technologies, where the businesses engaged were providing the service/infrastructure for the first time. However, no information is available to measure the impact of the programme on the growth of these businesses, or changes to their products.

It is likely that a larger number of co-benefits would be revealed if a more detailed assessment was carried out. Quantifying co-benefits would add further value to impact reporting, potentially tipping the scales of a cost-benefit analysis in favour of implementation. While there is a need to manage the reporting burden on grant recipients, future programmes could consider possible methods of collecting data to more accurately measure co-benefits.

Box 6.1: CEEP Case Study Two: Co-benefits

| **Site** | Aquatic Centre, WA |
| --- | --- |
| **Issue** | Ageing infrastructure and viability of facility given rising energy prices |
| **Upgrade** | Geothermal heat exchange upgraded and pool blanket |
| **Benefits** | Saved $90,000 in energy per year 450 tonnes of carbon emissions annually |
| **Co-benefits** | Operation of outdoor pool in winter for extended community use leading to increased revenue.  Improved air quality, increased visitor amenity |
| **Site** | Aquatic Centre, WA |

Box 6.2: CEEP Case Study Two: Co-benefits

| **Site** | Street lights, Various regions, VIC |
| --- | --- |
| **Issue** | Streetlights contributed a significant portion of council electricity costs |
| **Upgrade** | Upgrading 12,000 street lights to energy efficient luminaires |
| **Benefits** | Saved $975,000 per year in energy and maintenance;  4500 tonnes of carbon emissions annually |
| **Co-benefits** | Consistent lighting throughout region; increased perceived safety; greater CCTV compatibility |
| **Site** | Street lights, Various regions, VIC |

| *FINDINGS* | |
| --- | --- |
| 6. | Qualitative evidence provided by grant recipients suggests the CEEP produced a wide range of co-benefits including: improved facility amenities; reduced maintenance costs; increased operating hours; improved employee/client health and safety; increased sales; and increased services available to the community. |
| 7. | According to grant recipients, the CEEP often enabled technology upgrades that may not have otherwise occurred. Grant recipients commonly reported that the grant allowed projects to be brought forward by many years, or to fund upgrades that were not planned at all due to financial constraints. |
| 8. | There was no quantitative information available to measure the impact of the CEEP on the broader energy efficiency industry in Australia. Interviews with a small number of industry stakeholders suggest that CEEP may have supported the growth of Australian manufacturers of LEDs. |

| RECOMMENDATIONS | |
| --- | --- |
| 4. | While there is a need to minimise the reporting burden on grant recipients, future programmes could consider possible methods of collecting data to more accurately measure co-benefits. |

# Unintended Consequences

The evaluation considered the comments provided in grant recipient final reports to assess whether there have been any unintended effects of the programme on grant recipients. Only one grant recipient mentioned an occupational health and safety incident, involving an electrified street pole. This was considered an installation error, and did not result in any injuries.

Some grant recipients reported that after the installation of LED streetlights, their power companies increased their prices to compensate for the revenue lost through reduced maintenance requirements. Typically, this has been observed in regional and remote locations.

A handful of low socio-economic communities have reduced their energy consumption, but reported rises in their energy costs. It is common practice for the pricing structure of street lights to be modelled on the number of lights in place, not the amount of energy used. In some cases, the CEEP projects have resulted in an increased number of operating street lights (as some were previously broken), and thereby increased the council’s energy costs.

Two grant recipients (delivering a joint project) had to reduce the scope of their street light replacement programme due to the requirement of paying a gifting tax to the relevant state government (approximately $1 million). Because the street light poles were owned by a network provider (rather than the local council directly), the street light globes funded under the CEEP were ‘gifted’ to the network provider. The state government agreed to waive the gifting tax on the first occasion. However, it would not agree to further applications to waive the tax. The project was subsequently reduced in scope.

| FINDINGS | |
| --- | --- |
| 9. | The evaluation did not find any evidence of significant unintended consequences as a result of the programme. However, some barriers did exist (in a limited number of cases) that reduced the effectiveness of the programme. This included issues with the ownership of street light poles, and the pricing structure for street lighting. |

| RECOMMENDATIONS | |
| --- | --- |
| 5. | Energy efficiency programmes should consider monitoring the energy costs of grant recipients, to assess whether the financial benefits of reduced energy consumption are being received by end users. The ownership of street lighting infrastructure should also be considered. |

# Governance and Administration

The department engaged ACIL Allen Consulting to conduct a separate evaluation of the administration of the CEEP. The ACIL Allen Evaluation Report was approved by the Steering Committee in August 2016. For completeness, a summary of the key findings is provided in this section of the report. A full copy of the final ACIL Allen Evaluation Report can be found at [www.industry.gov.au/OCE](file:///C:/Users/kbarnes/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/NI9LAWVI/www.industry.gov.au/OCE).

## ACIL Allen Consulting Evaluation

To inform the evaluation, ACIL Allen considered the final reports provided by grant recipients, an online survey of grant recipients, and telephone interviews with a small number of grant recipients.

## Conclusion and Findings

| RECOMMENDATIONS | |
| --- | --- |
| 6. | Ensure stakeholders and grant recipients establish a shared understanding of the data required to measure the programme’s effectiveness. For example investigate ways to establish an agreed baseline for energy use prior to the programme, and expectations to collect one full year of energy consumption data post-project. |
| 7. | Consider compliance thresholds for small, medium and large projects to ensure the level of required compliance reporting is commensurate with the size, complexity, and delivery timeframe of a project. |
| 8. | Consider whether it would be cost effective to engage energy auditors directly for future energy efficiency programmes. This would provide economies of scale and consistent methods of assessment, and would reduce the amount of reporting for grant recipients. |
| 9. | The department should work with grant applicants to help them understand the skill sets and likely time and budget allocation for project management. Grant applicants should be encouraged to allow adequate funds to ensure that appropriately experienced and capable project managers are engaged. |
| 10. | The success stories of grant recipients should be disseminated to key bodies, such as local government associations, relevant state government authorities and industry associations, to showcase the energy savings achieved and promote further upgrades to energy efficient technologies. |

| FINDINGS | |
| --- | --- |
| 10. | The overall CEEP application process and assessment processes were clear to applicants. The guidelines were seen as highly effective in providing clarity for the application process and requirements. A small percentage of grant recipients found the programme’s data collection and reporting requirements were unclear. |
| 11. | Machinery of government changes were disruptive to the negotiation of funding agreements (and also to programme delivery). The high turnover of programme administrators also affected project continuity and stakeholder relationships. |
| 12. | Compressed delivery timeframes caused by protracted negotiations of the funding agreements were cited (by some Round One grant recipients) as a key hurdle to effective project delivery. |
| 13. | Just over half of CEEP grant recipients agreed the reporting requirements were reasonable. However nearly one quarter of Round One and Round Two grant recipients considered that funding agreements were impractical, too complicated and had too frequent milestone reporting. |
| 14. | Grant recipients found managing the projects more challenging than they had envisaged at the project concept and design stage, given the size and nature of the projects relative to their day-to-day responsibilities. In some cases, recipients also lacked the technical skills to effectively manage the data collection and reporting. |

1. [CEEP Grant Guidelines, Round Two p.4–5](https://industry.gov.au/Energy/EnergyEfficiency/Documents/03_2013/ceep-program-guidelines.pdf). [↑](#footnote-ref-2)
2. *The Australian Energy Update* 2016. [↑](#footnote-ref-3)
3. The statistics were filtered to remove projects that skewed the energy saving results for cost per TJ, for example if energy use data was increased because of external factors (building extensions or increased operating hours). [↑](#footnote-ref-4)
4. *2015 Residential Electricity Price Trends*, Australian Energy Market Commission, P.81. [↑](#footnote-ref-5)
5. CEEP Grant Guidelines, p.4–5. [↑](#footnote-ref-6)
6. [Securing a Clean Energy Future, Department of Climate Change and Energy Efficiency, 2011](http://www.frontlineservices.com.au/Frontline_Services/Climate_Change_files/Securing%20a%20Clean%20Energy%20Future.pdf), accessed April 2017. [↑](#footnote-ref-7)
7. [2008–09 Budget Paper No. 2](http://www.budget.gov.au/2008-09/content/bp2/download/bp2.pdf), Part 2, Climate Change, p.103. [↑](#footnote-ref-8)
8. [Wilkins Review](https://www.finance.gov.au/sites/default/files/Climate-Report.pdf), 2008, p.210–211. [↑](#footnote-ref-9)
9. [Wilkins Review 2008](https://www.finance.gov.au/sites/default/files/Climate-Report.pdf), p.15. [↑](#footnote-ref-10)
10. [National Energy Productivity Plan 2015 - 2030](https://prod-energycouncil.energy.slicedtech.com.au/sites/prod.energycouncil/files/publications/documents/National%20Energy%20Productivity%20Plan%20release%20version%20FINAL_0.pdf), pp.7 & 20. [↑](#footnote-ref-11)
11. [*The Australian Energy Update* 2016](https://industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/aes/2016-australian-energy-statistics.pdf). [↑](#footnote-ref-12)
12. The statistics were filtered to remove projects that skewed the energy saving results for cost per TJ. For example, if energy use data was affected by external factors (building extensions or increased operating hours). [↑](#footnote-ref-13)
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14. [CEEP Grant Round Two Guidelines](https://industry.gov.au/Energy/EnergyEfficiency/Documents/03_2013/ceep-program-guidelines.pdf), accessed April 2017. [↑](#footnote-ref-15)
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