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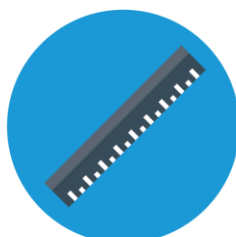
Community Power Hubs Program

Evaluation report

Prepared for
Sustainability Victoria



RESEARCH



EVALUATION



DESIGN

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First Person Consulting (FPC) is a Melbourne-based consulting firm where staff specialise in social research, evaluation and design. Staff at FPC have conducted a wide variety of projects across a range of sectors, including agriculture and natural resource management, sustainability and climate change, and public health.

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Acronyms

CE	Community Energy
CEG	Community Energy Group
CPH	Community Power Hubs
DELWP	Department of Environment, Land, Water and Planning
FPC	First Person Consulting
KEQ	Key Evaluation Question
RE	Renewable Energy
RAG	Roundtable Advisory Group
SV	Sustainability Victoria
VRET 2030	Victorian Renewable Energy Target
YEF	Yarra Energy Foundation

Executive Summary

Evaluation of the Community Power Hubs Program

Building on the experiences of the CPH Pilot Program, the Victorian Government pledged \$5.94 million to expand the CPH program under the continued management of Sustainability Victoria (SV), delivered over 12 months from July 2021 to July 2022. The second iteration of the program has supported seven Community Power Hubs, each with a focus to extend support to the community across their respective regions. The objectives of the program were to:

1. Increase local capacity and capability within communities to deliver their renewable energy projects.
2. provide jobs for local contractors and increased economic activity for regional communities.
3. support other relevant Victorian Government energy priorities and initiatives.
4. boost the renewable energy industry in Victoria and
5. reduce greenhouse gas emissions.

As the Program is now complete, SV have contracted FPC to undertake an evaluation of the program to assess the effectiveness, efficiency, appropriateness, benefit, impact and legacy of the program.

Our approach to this evaluation involved an inception meeting to confirm the scope and approach to the evaluation; development of a project plan, desktop review of documents and data; semi-structured phone interviews with SV Program staff (6), paid staff from Lead Partner Organisations (13) and CPH volunteers (5); data analysis and synthesising key findings and recommendations into an evaluation report.

Summary of key findings

The CPH program made good progress towards its stated target and achieved a number of outcomes within the 12-month delivery period.

- **The Program directly led to 51 completed projects and 1,454kW¹ of installed renewable capacity.** The program also brought stakeholders together to develop and deliver 15 implementation-ready community Renewable Energy projects across the four funded regions.
- **Additionally, there are now a number of projects in the pipeline as a result of the CPH Program which are likely to lead to further outcomes in the future,** including the potential for a further 23,223 kW of renewable energy generation.
- **Importantly, the projected kW capacity of all pipeline projects is ~15 times higher than the capacity achieved through the 12 months of program delivery, emphasising the significant potential benefits that could be achieved with longer-term support or a longer delivery window.**

¹ Note that this figure was provided as an update on 9/11/22 and that calculations in the report rely on an earlier figure of 1497kW as reported by CPHs in their final reports.

- The 2.5MW installed capacity target is likely to be achieved as a result of the Sustainable Finance Mechanism budget allocations and the delivery of pipeline projects in the coming years.
- **The key value of the CPH program is the increased knowledge and capacity of communities to engage in their transition to renewable energy, with CPHs playing an important role in driving community uptake of renewable energy.**
- CPH representatives reported **increased community support for renewable energy** and high levels of interest and engagement from their communities. Key activities that generated strong community interest and engagement included events and online webinars. In particular, interviewed CPH representatives noted a high interest in community batteries and consultations on solar for homes.
- The Program also **led to increased awareness and capacity of community energy groups** to initiate, develop, own and benefit from renewable energy projects. The Program also led to the **creation of new community energy groups** in regions where there had previously been none, as well as the **creation of revolving funds** by CPH Lead Partner Organisations in two regions (Barwon South West and Loddon Mallee) which will enable community groups to apply for funding for their projects into the future.
- In total, **the seven CPHs are estimated to have generated more than \$5.9 million in value within the one-year period.** This includes an expected \$2.1 million in electricity savings over 10 years and \$2.0 million in additional economic value generated across the regions. This equates to a 1.2 to 1.0 ratio of benefits relative to government investment in the program, with a range of further benefits expected to flow in future years from projects supported by the CPHs.

There is evidence of a clear need for a program like the CPH program

- It allows a unique approach for Government to support community energy and local community engagement at the ‘front end’ of projects to enable the start-up work: the administration, coordination, and feasibility.
- The delivery mechanism of the CPH Program was well aligned to its intended objectives.
- Importantly, the CPH Program helps address one of the key barriers faced by community groups when attempting to implement community renewable energy projects - the heavy reliance on volunteers.

The CPH Program has largely been delivered in line with the original intent as documented in the project plan, however, a number of lessons were identified which should be used to inform future program design and delivery. Key points include:

- The key strengths of program delivery that were identified included **the level of support provided by SV to lead partner organisations, the ability to use grant funding to employ CPH staff and build organisation capacity, the regional spread of Hubs across the state**, the enthusiasm and motivation of CPH staff and volunteers and the focus on building the capacity of community energy groups and volunteers.
- **The short delivery timeline was identified as the major limitation of the program.** The expectation for Hubs to be established and delivering projects in a 12-month timeframe was

felt to be unrealistic by both program staff and CPH representatives and meant that while progress towards installed renewable energy targets was made, the targets for installed capacity were not achieved within the timeframe.

- **The importance of clarity but also flexibility with funding streams has been highlighted.** CPH representatives perceived a lack of clarity as to how the CPH was allowed to use its funding, in terms of not being able to use the establishment funding for implementing capital works.
- **Feedback from CPH representatives suggests a need for ongoing funding to support community energy groups to deliver solar projects.**

Summary of recommendations

Based on the findings summarised above (and presented in more detail throughout the remainder of this report), we make the following recommendations:

1. **The Victorian Government should consider opportunities to continue providing funding to community energy groups and partnering with community organisations who have built a strong reputation in communities so that momentum is not lost.** This evaluation has highlighted the number of projects that are in the pipeline across all CPH regions, however, community groups need access to resourcing to be able to implement these projects and have a significant impact. The Sustainable Funding Mechanism that was developed through this program is one appropriate method of continuing to provide funding and support to projects that are ‘implementation ready’, but we note the importance of also being able to support paid staff and capacity building which the SFM does not facilitate.
2. **The Victorian Government should continue to encourage and facilitate collaboration and partnerships between community energy groups across the state** so that important lessons, resources and skills are available and shared. Both the pilot and this CPH Program successfully demonstrated the effectiveness of the CPH delivery mechanism in increasing collaboration and the sharing of resources and lessons between community energy groups which provided support for renewable energy projects.

When designing future programs and grant programs, SV should:

3. **Consider the importance of allocating some grant funding to allow organisations and community energy groups to employ staff.** Access to skilled staff was a critical element and strength of the CPH program design which helped to increase the capacity of the lead partner organisations to further support more community groups who were often inexperienced and unestablished. It also decreased the reliance on volunteers to deliver some aspects of projects and allowed for volunteers to be supported by experienced and resourced staff. Where appropriate, this element should be replicated in future similar programs to help increase the efficiency and effectiveness of project delivery.
4. **Consider the need for longer timeframes to allow programs and grant recipients sufficient time for establishment, planning and delivery.** As highlighted through this evaluation, community energy groups would likely have benefitted from receiving the same level of

funding but over a longer period. This would allow groups more time to plan for and prioritise community energy projects, likely leading to the implementation of larger and more complex projects with improved energy and emissions outcomes.

- 5. Consider how to increase focus on increasing installed capacity and reducing greenhouse gas emissions, while still supporting the establishment of groups in areas where this is most needed.** As this evaluation has identified, a majority of the funding provided to CPHs through this program was intended to support establishment of the Hub rather than be used for capital works and solar installations. While the value of this focus is evidenced by the increased capacity and capability of community energy groups across the regions, some CPHs likely would have benefitted from directing more of their ‘establishment’ funding to ‘implementation-ready’ projects. Key points for consideration include:
- a. a tailored approach by region so that areas that are more advanced in terms of community engagement with renewable energy and existing and established community energy groups would be able to use their grants to implement projects and install more solar PV.
 - b. targeting community engagement and energy literacy capacity building activities towards areas where there is a less established culture of community energy to address the cultural shift required for communities to engage in transitioning to a renewable future.

1 Introduction

1.1 Background to the Program

A Community Power Hub is a collective of groups and organisations working together to develop and deliver community energy projects across a region (Figure 1). It involves and empowers the community at the ‘front end’ of clean energy projects, leveraging the volunteers and local effort in identifying and delivering projects that are technically feasible, financially viable and socially acceptable. It also provides the community with a trusted local source of information and advice on matters related to the transition to a clean energy future and builds support and participation in local action.

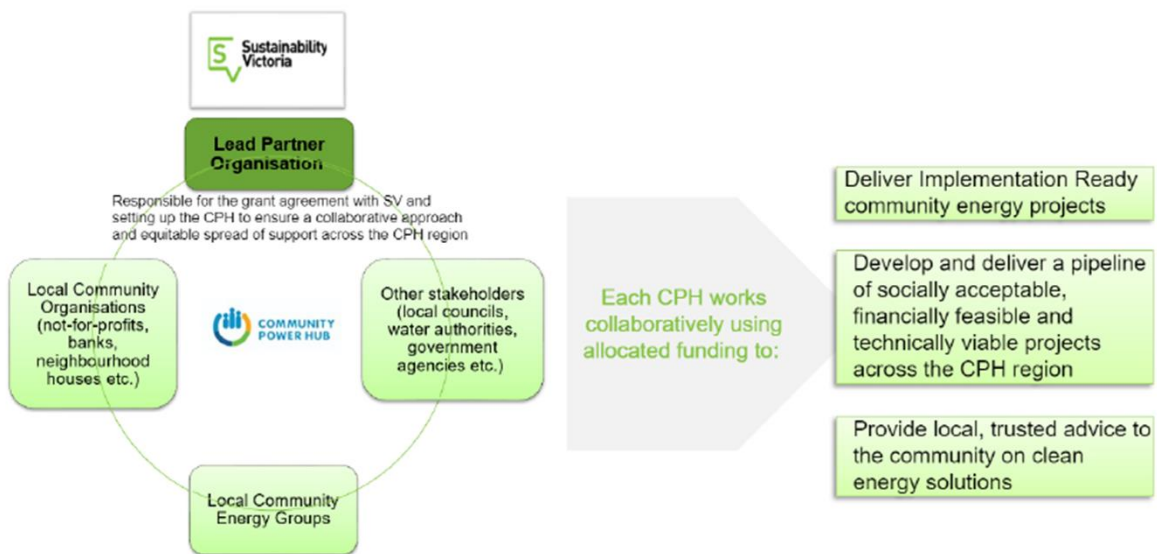


Figure 1. Diagram of CPH mechanism. (Source: CPH Project plan p.4)

The Community Power Hubs (CPH) program builds on the experiences and lessons learned during the CPH Pilot Program, which ran between July 2017 and June 2020. An external evaluation of the first two years of the CPH Pilot Program concluded the model had been effective and successful in achieving its desired outcomes, including:

- demonstrable reductions in greenhouse gas emissions
- increased performance of the renewable energy industry in regional Victoria
- increased community engagement in renewable energy
- significant financial value creation for the Victorian Government

In line with the independent evaluator’s recommendation to continue and expand the CPH program, as well as the recommendations made by the 2017 Victorian Parliamentary Inquiry into Community Energy Projects, and the 2020 Parliamentary Inquiry into tackling climate change in Victorian communities, **the Victorian Government pledged \$5.94 million to expand the CPH program under the continued management of Sustainability Victoria (SV), delivered over 12 months from July 2021 to July 2022.**

While the initial pilot program established three Community Power Hubs that concentrated on Ballarat, Bendigo and Latrobe Valley, the second iteration of the program has supported seven Community Power Hubs each with a focus to extend support to the community across their respective regions (See Figure 2).

The objectives of the program were to:

1. increase local capacity and capability within communities to deliver their renewable energy projects.
2. provide jobs for local contractors and increased economic activity for regional communities.
3. support other relevant Victorian Government energy priorities and initiatives.
4. boost the renewable energy industry in Victoria and
5. reduce greenhouse gas emissions.

As the Program is now complete, SV have contracted FPC to undertake an evaluation of the program to assess the effectiveness, efficiency, appropriateness, benefit, impact and legacy of the program.

This document presents the findings from the Community Power Hubs program evaluation.

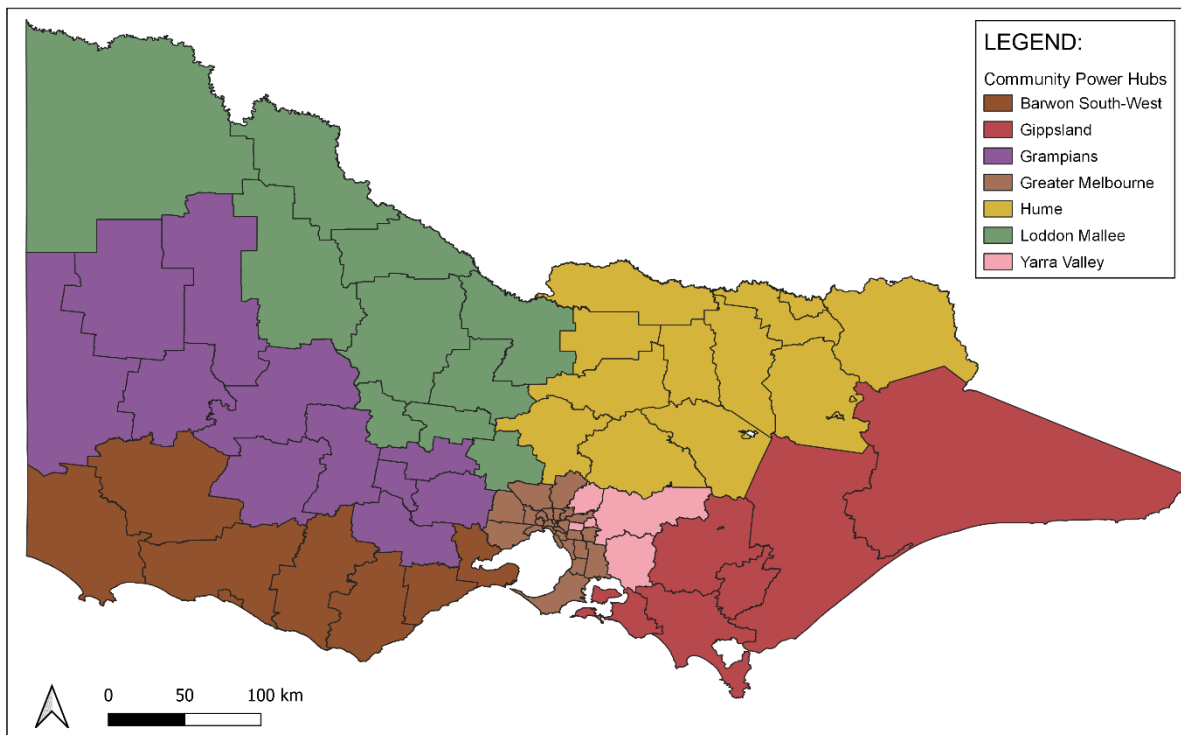


Figure 2. Regions where Community Power Hubs are located. Source: CPH Program Management Plan.

1.2 Evaluation objectives and scope

Working with SV, the overarching objective of this evaluation was to respond to the following key evaluation questions (KEQs):

- To what extent was the Community Power Hubs program **appropriately designed** to achieve its intended objectives?
- To what extent was the program managed and delivered **effectively** and **efficiently**?
- What were the key **outcomes** and **impacts** of the program?
- What are the **lessons** and **opportunities** for future program design and delivery?

The scope of the CPH Program evaluation includes:

- **preparing an evaluation report** (this document) that responds to key evaluation questions and outlines an assessment of the appropriateness of program design, effectiveness and efficiency of program management, the outcomes and impact of the program, and a synthesis of lessons learned and future opportunities.
- **developing clear recommendations** to inform the design and delivery of similar programs under future funding rounds (and any relevant programs currently being delivered by SV)

2 Approach

2.1 Overview

Our approach to this evaluation involved the following steps:

- **An inception meeting with SV** to confirm the scope and approach to the evaluation.
- **Development of an evaluation plan** for the CPH
- **Review of program documents and data**, including the project plan, CPH final reports and the pilot evaluation report.
- **Semi-structured interviews with key stakeholders**. These interviews were tailored by stakeholder group and explored a range of issues relevant to the key evaluation questions. They were done by phone or videoconference and included:
 - 6 interviews with SV Program staff members
 - 18 interviews with CPH representatives including 13 CPH staff (two from each organisation except Gippsland Climate Change Network where we only interviewed one stakeholder) and 5 CPH volunteers.
- **Data analysis** and synthesis, including thematic analysis of qualitative interview data.
- **Development of this evaluation report** which includes key findings and recommendations.

A detailed evaluation framework with key evaluation questions, sub questions and indicators is included in Appendix 1.

2.2 Limitations

There are a few limitations that should be considered when reviewing the findings presented in this report, including:

- A large portion of the evidence presented is based on the feedback from interviews and reports from CPHs, and therefore is inherently subjective and may contain biases. We have attempted to collate data from a range of sources to help triangulate and provide assurance of findings, but the results should be interpreted cautiously.
- While we interviewed representatives involved in the governance or management of the seven CPHs, collecting data from other community energy groups from the Hub regions (who may or may not have been involved with the CPH) was out of scope for this evaluation.
- The energy savings are estimates only and are based on the figures that have been reported by CPHs in their final reports. GHG and financial savings have been calculated from these figures (assumptions outlined in Appendix 2)
- The CPH program has contributed to the various energy and other savings reported in this evaluation through the range of support (financial and otherwise) provided and leveraged through the CPHs. It is important to keep in mind, however, that these savings are not necessarily fully attributable to the program alone. Where possible, we have tried to clarify the additional impact of the program where this was clear but in most cases we have had to simply assume that the investments would not have been made otherwise.

3 Key findings and recommendations

3.1 Key findings

The CPH Program has provided much needed funding for community energy groups across the state which are typically primarily run by volunteers. In addition to greenhouse gas emissions savings, the Hubs led to increased community support for renewable energy, increased knowledge and skill sharing throughout the regions and facilitated opportunities for collaboration between groups.

The key findings under each of the evaluation domains are summarised below. These findings are discussed in more detail in Sections 4, 5, 6 and 7 of this report.

Outcomes and impacts

The program has made good progress toward its stated objectives and expected outcomes.

- While the MW capacity GHG emissions reduction targets were not achieved within the program timelines, **the Program directly led to 51 completed projects and 1,454kW² of installed renewable capacity.** Additionally, there are now a number of projects in the pipeline as a result of the CPH Program which are likely to lead to further outcomes in the future, including the potential for a further 23,223 kW of renewable energy generation.
- **CPH representatives reported increased community support for renewable energy and high levels of interest and engagement from their communities,** with achievements including:
 - 282 community events held across the Hubs with a total of 19,056 attendees reported
 - A total of 28,658 volunteer hours reported across Hub activities and projects
 - 1,213 people actively contributing to the project
 - 118,757 people members/users of the project aware of project
 - In their final reports, CPHs reported over 1.5 million views of their Facebook pages and websites over the period of delivery combined.
- **The key activities that generated strong community interest and engagement were the events and the online webinars.** In particular, interviewed CPH representatives noted a high interest in community batteries and consultations on solar for homes, however, acknowledged that a lot of the interest came from people who already had strong environmental values.
- There was a sense that many of the events that were delivered would not have occurred without the CPH Program. Further, stakeholders commented that **a number of these events led to identifying new opportunities and pipeline projects.**
- **Increased local capacity and capability to deliver community energy projects was also identified as a key outcome of the CPH Program.**
- The Program led to the **creation of new community energy groups** in regions where there had previously been none.

² Note that this figure was provided as an update on 9/11/22 and that calculations in the report rely on an earlier figure of 1497kW as reported by CPHs in their final reports.

- The Program also led to the **creation of revolving funds** in two regions by CPH Lead Partner Organisations (Barwon South West and Loddon Mallee) which will enable community groups to apply for funding for their projects into the future.
- The **sharing of resources and lessons between groups** helped to increased collaboration and efficiencies between groups, increased knowledge and skills, and increased motivation and confidence to deliver projects.
- An online community survey administered by Wallis Research and SV in 2021 and 2022 found no significant change in community awareness of community renewable energy.³ However, CPH representatives provided anecdotal evidence that the program had contributed to **increased awareness and understanding of community energy within communities**. In particular, they felt that community engagement played a key role in shifting attitudes on transitioning to a low carbon future.
- In terms of increased volunteer capability, 3/5 of interviewed volunteers either agreed that they had increased their skills and knowledge of renewable energy as a result of their work with the CPH.
- In total, the seven CPHs are estimated to have generated more than \$5.9 million in value within the one-year period. This includes an expected \$2.1 million in electricity savings over 10 years and \$2.0 million in additional economic value generated across the regions. This equates to a 1.2 to 1.0 ratio of benefits relative to government investment in the program, with a range of further benefits expected to flow in future years from projects supported by the CPHs.

Appropriateness of program design

There is a clear need for the CPH program, as it allows a unique approach for Government to support community energy and local community engagement at the ‘front end’ of projects to enable the start-up work: the administration, coordination, and feasibility.

It thus aligns with the 2017 Inquiry into community energy projects conducted for the Victorian Government which found that⁴:

- Guides and toolkits are useful in the early stages of a community energy project’s development, but **community energy groups require further mentoring and practical training to implement a project fully**
- **Intermediary organisations that provide community energy groups with advice, support, expertise and coordination can provide much needed assistance and boost the development of the community energy sector.**
- Furthermore, **the CPH Program helps address one of the key barriers faced by community groups when attempting to implement community renewable energy projects - the heavy**

³ Total sample size for the survey was 1,054 in 2021 and 1,050 in 2022. Sample sizes for each region was at least 150.

⁴ [EEJSC Community Energy Projects gyHN0P8K.pdf \(parliament.vic.gov.au\)](#)

reliance on volunteers. By employing expert staff to conduct the administrative work, lead capacity-building, and conduct feasibility studies, the CPH Program has a direct impact on the community organisation's work and the success of community energy.

The delivery mechanism of the CPH Program is well aligned to its intended objectives and is an effective approach to support the development and implementation of community energy projects.

When asked to reflect on the design of the program, responses from SV Program staff were positive. All 6 interviewed SV Program staff agreed that the program's design is directly and strongly linked with its intended outcomes

CPH representatives provided mixed sentiments on whether the program had met the needs and expectations of the community. Interviewees who were less satisfied pointed to the unrealistic timeframes of the program and a lack of clarity as to how the CPH was allowed to use its funding.

Effectiveness of program delivery

The CPH Program has largely been delivered in line with the original intent as documented in the project plan.

Key strengths of program delivery that have been identified include:

- The **level of support provided by SV to CPHs and lead partner organisations**
- The **ability to use the grant funding to employ CPH staff** and build organisation capacity, rather than just energy project implementation
- **The regional spread of Hubs across the state** (and having an SV lead in each region)
- The **enthusiasm and motivation** of CPH staff and volunteers
- The **focus on building the capacity of community energy groups and volunteers**
- The **baseline survey and data** that was shared with Hubs
- The **collaboration and coordination** that was fostered between community energy groups

There were also a range of challenges and limitations that hampered successful delivery of the CPH program. These included:

- **The short delivery timeline was identified as the major limitation of the program.** Notably, the CPH Pilot evaluation recommended that the timeline for CPHs should be four years to have a strong establishment phase, see more of the projects realised on the ground and enable more time for awareness raising. The expectation for Hubs to be established and delivering projects in a 12-month timeframe was felt to be unrealistic by both program staff and CPH representatives and meant that while significant progress to installed renewable energy targets was made, the targets for installed capacity were not achieved.
- **Governance challenges.** As discussed below in Section 6.3, SV recommended that the CPHs establish a collaborative governance approach. Some CPH representatives identified challenges specific to their Hub with their governance, including:
 - the RAG meetings were more commonly used as a forum to communicate the progress to RAG members instead of as an advisory function
 - competing priorities of member groups led to some disengagement with the roundtable advisory group
 - a lack of representation from first nations peoples

- instances of agreements being entered into without approval from the group
- an over-reliance on lead partner organisation staff and volunteers compared to other community energy groups involved.
- **Data management** and reporting challenges.
- A **lack of clarity** around expectations.
- A perceived **lack of flexibility in the program** by the CPH lead partner organisations.
- **No legacy** or plan for how to continue or sustain beyond the funding period.
- COVID-19 and lockdown related challenges to delivery.
- **conflicting priorities** between organisations participating in a Hub.

We note that the program has adapted to a range of challenges and external factors throughout implementation – with many interviewees noting that many events were successfully delivered online as a result of COVID and associated lockdowns.

Despite design and delivery limitations associated with the short timelines, the CPH Program appears to have been well managed by SV based on its scope, context and intended outcomes.

- All interviewed CPH representatives reported some level of satisfaction with SV's management of the program.
- Despite being given 12 months to deliver rather than the recommended 4 years, **the program has been delivered within the timeframe, with the 7 CPHs successfully acquitting their grants.**
- Most of the \$5.94 million in funding was expended, with each of the CPHs receiving \$428,400 for establishment, however, **\$1 million is still to be spent on the Sustainable Finance Mechanism component of the program.**
- Four of the seven CPHs also secured funding totalling \$730, 571 for implementation ready projects at 16 sites to have solar energy systems installed, all of which have been completed.

Lessons and opportunities

A number of lessons and opportunities have emerged from this evaluation. Key lessons include:

- A need for longer delivery timeframes to implement projects which would have an increased impact on GHG emissions reductions.
- **Data management and M&E processes**, including
 - Considering less reporting requirements for grantees and prioritising 'must have data'
 - Employing a single data management approach internally at SV (e.g., having a master spreadsheet for all projects and data), and consistent data tracking across the program team.
 - Considering how to capture and quantify outcomes such as culture change and increased knowledge and capacity of communities to engage in a transition to renewable energy more effectively.
- **The benefits of providing grants that allow groups to fund staff.** The Program enabled lead partner organisations to employ staff, increasing the capacity of these organisations to increasingly support other community energy organisations, by funding important work such

as feasibility studies on behalf of community groups which would be unlikely to occur otherwise.

- Related to the above, **there is a need to focus on increasing capacity for volunteer recruitment and retention.**
- **The value of collaboration between Hubs**, and a desire by community organisations to facilitate more cross-region sharing of lessons and knowledge.
- The **value of engagement** was also highlighted as a key lesson, with lead partner organisations also specifically reflecting on **the importance of engaging with councils to help spread the word** about the CPHs as they are able to use their existing communication channels to reach community members.
- **The importance of clarity but also flexibility with funding streams.** Related to this, interviewees mostly spoke about the importance of clearly communicating the types of projects that were eligible for project expenditure.
- **Feedback from CPH representatives suggests a need for ongoing funding to support community energy groups to deliver solar projects.** There was a concern that activities and capacity would decrease and there would be a loss of momentum without recurrent funding.
- **There is likely a need to target increased engagement activities in areas that don't already have community energy groups or where the community is less environmentally progressive.**

While grants were seen to ignite action and help community groups progress projects, stakeholders reflected on the need for reliable ongoing funding to sustain momentum and deliver much more in terms of increased renewable energy and decreased greenhouse gas emissions across the state.

3.2 Recommendations

Based on the findings summarised above (and presented in more detail throughout the remainder of this report), we make the following recommendations:

1. **The Victorian Government should consider opportunities to continue providing funding to community energy groups and partnering with community organisations who have built a strong reputation in communities so that momentum is not lost.** This evaluation has highlighted the number of projects that are in the pipeline across all CPH regions, however, community groups need access to resourcing to be able to implement these projects and have a significant impact. The Sustainable Funding Mechanism that was developed through this program is one appropriate method of continuing to provide funding and support to projects that are 'implementation ready', but we note the importance of also being able to support paid staff and capacity building which the SFM does not facilitate.
2. **The Victorian Government should continue to encourage and facilitate collaboration and partnerships between community energy groups across the state** so that important lessons, resources and skills are available and shared. Both the pilot and this CPH Program successfully demonstrated the effectiveness of the CPH delivery mechanism in increasing collaboration and the sharing of resources and lessons between community energy groups which provided support for renewable energy projects.

When designing future programs and grant programs, SV should:

- 3. Consider the importance of allocating some grant funding to allow organisations and community energy groups to employ staff.** Access to skilled staff was a critical element and strength of the CPH program design which helped to increase the capacity of the lead partner organisations to further support more community groups who were often inexperienced and unestablished. It also decreased the reliance on volunteers to deliver some aspects of projects and allowed for volunteers to be supported by experienced and resourced staff. Where appropriate, this element should be replicated in future similar programs to help increase the efficiency and effectiveness of project delivery.
- 4. Consider the need for longer timeframes to allow programs and grant recipients sufficient time for establishment, planning and delivery.** As highlighted through this evaluation, community energy groups would likely have benefitted from receiving the same level of funding but over a longer period. This would allow groups more time to plan for and prioritise community energy projects, likely leading to the implementation of larger and more complex projects with improved energy and emissions outcomes.
- 5. Consider how to increase focus on increasing installed capacity and reducing greenhouse gas emissions, while still supporting the establishment of groups in areas where this is most needed.** As this evaluation has identified, a majority of the funding provided to CPHs through this program was intended to support establishment of the Hub rather than be used for capital works and solar installations. While the value of this focus is evidenced by the increased capacity and capability of community energy groups across the regions, some CPHs likely would have benefitted from directing more of their 'establishment' funding to 'implementation-ready' projects. Key points for consideration include:
 - a. a tailored approach by region so that areas that are more advanced in terms of community engagement with renewable energy and existing and established community energy groups would be able to use their grants to implement projects and install more solar PV.
 - b. targeting community engagement and energy literacy capacity building activities towards areas where there is a less established culture of community energy to address the cultural shift required for communities to engage in transitioning to a renewable future.

4 Outcomes and impacts

4.1 Overview

This section responds to the key evaluation question ‘What were the key outcomes and impacts of the program?’. The subsections below provide findings in relation to:

- the extent to which the program has achieved its objectives and target outcomes
- the key benefits and outcomes for those involved, including
 - increased awareness of community energy
 - increased capacity of community energy groups to deliver projects
 - reduced greenhouse gas emissions
- unintended or unexpected outcomes of the program.

4.2 Achievement of objectives and targets

As outlined in Table 1 below, the CPH Program made substantial achievements in relation to the intended outcomes as identified in the plan. While the MW capacity GHG emissions reduction targets were not achieved within the program timelines, **the Program directly led to 51 completed projects⁵ and 1,454kW of installed renewable capacity**. Additionally, there are now 145 projects in the pipeline as a result of the CPH Program which are likely to lead to further outcomes in the future

Table 1. Summary of achievements against each Program objective from across all 7 CPHs. Source: CPH final reports

Objective	Summary of overall achievements
Provide employment opportunities for local contractors and increased economic activity for regional communities	<p>\$1,114,368 spent on local contractors, services and products</p> <p>\$1,948,139 additional project capital finance secured (from donations, other Victorian government grants, investment, project site contribution, funding from Hub’s own budget etc.)</p> <p>Supported 22 jobs in regional Victoria and a further 4 in metropolitan Melbourne over the life of the program⁶</p>
Increase local capacity and capability within communities to deliver their renewable energy projects	<p>51 completed projects across the 7 CPHs</p> <p>282 community events held, with 19,056 attendees</p> <p>A total of 28,658 volunteer hours, equalling \$1,318,268 worth of volunteer labour⁷</p> <p>\$106,090 of in-kind support and contributions</p> <p>1,213 people actively contributing to the project</p> <p>118,757 people members/users of the project aware of project</p>

⁵ The 51 completed projects include installs of solar and batteries (33), as well as other projects including feasibility studies, bulk buys, webinars etc.

⁶ Based on DELWP modelling of the program economic impacts

⁷ 28,658 hours at a volunteering rate of \$46.00 per hour (as per 2022 average weekly earnings reported by the ABS).

<p>Boost the renewable energy industry in Victoria</p>	<p>1,454 kW installed capacity of completed projects</p> <p>23,300 kW projected capacity of projects in the pipeline</p> <p>806 community energy enquiries received</p> <p>18 feasibility studies completed</p>
<p>Support other relevant Victorian Government energy priorities and initiatives</p>	<p>\$251,028 leveraged from other Vic Government grants</p> <p>In addition to supporting community energy groups to deliver projects through the CPH Program, a number of groups and projects were supported to apply for other initiatives and funding.</p> <p>The Gippsland CPH supported 9 projects to apply for Sustainability Victoria’s Community Climate Change and Energy Action Program.</p> <p>3/5 interviewed volunteers noted that they were now more aware of other grant programs and rebates, particularly through joining SV’s mailing list.</p> <p>There are examples where CPHs were able to leverage Solar Victoria rebates, including the Echuca Neighbourhood House project.</p>
<p>Reduce greenhouse gas emissions</p>	<p>The CPHs have made a substantial contribution to assisting greenhouse gas emission reductions across the state. The direct greenhouse gas emissions savings as a result of the projects delivered is estimated to be 1,104 t CO2e per year. On top of the 15 implementation ready projects funded (Table 7) and the other 18 capital install projects completed (Table 12) there are also a number of projects in the pipeline that could vastly increase the contribution to reducing GHG emissions into the future. Particular achievements highlighted in CPH final reports include:</p> <ul style="list-style-type: none"> • Barwon South West CPH implemented 5 Behind the Meter Solar projects which were calculated to reduce emissions by 162 tonnes CO2/year • Installations of solar systems and energy efficient appliances derived directly through the Metro CPH’s Home Energy Efficiency programs indicate a reduction in greenhouse gas emissions of approximately 277 tCO2e per year.
<p>Value derived from the Government Investment</p>	<p>Based on the value quantification tool used for the pilot CPH, this program generated value in the order of \$13.5 million over the life of the individual projects, including \$2.1 million and \$2.0 million in additional economic value. This equates to a 1.2 to 1.0 ratio of benefits relative to government investment in the program.</p> <p>The total value of additional labour contributions that were not paid by the Hub has been calculated to be over \$1.3 million.⁸</p> <p>The total monetary value that was leveraged from in-kind contributions (non-labour), community funding, philanthropy, additional government grants and other funding not from the government was \$1,948,140.</p>

⁸ figure calculated using the value quantification tool established for the CPH Pilot.

4.3 Increased awareness and understanding of Community Energy

There is no concrete evidence that the CPHs led to increased awareness and understanding of community energy. Importantly, an online community survey administered by Wallis Research and SV in 2021 and 2022 found no significant change in community awareness of community renewable energy between the two years.⁹

However, in interviews, CPH representatives noted a perceived increase in awareness and understanding of community energy within communities as a key outcome of the CPH program. In particular, they felt that community engagement had played a key role in shifting attitudes on transitioning to a low carbon future. Importantly, some interviewees noted that this increased awareness of community energy is likely to result in more people being open to community energy project proposals in their region. For example, one interviewee noted that there was now a heightened awareness of electric vehicles (EVs) in their region as a result of some public forums and information sessions held by the Yarra Valley CPH. Another Lead Partner organisation spoke about increasing community awareness and understanding of solar bulk buys.

We ran a community solar bulk buy across 7 different regions, so there was all the upskilling of the community in understanding how a program like that works. The idea was that we would empower them to run their own solar programs beyond the CPH program. so that was a key outcome. (CPH representative)

CPH representatives reported high levels of interest and engagement from their communities, with achievements including:

- 282 community events were held across the Hubs with a total of 19,056 attendees reported
- A total of 28,658 volunteer hours were reported across Hub activities and projects
- \$106,090 of in-kind support and contributions
- 1,213 people actively contributing to the project
- 118,757 people members/users of the project aware of project
- In their final reports, CPHs reported over 1.5 million views of their Facebook pages and websites over the period of delivery combined.

Interviewees felt that **the key activities that generated strong community interest and engagement were the events and the online webinars**, a sentiment that was also highlighted in CPH final reports. In particular, interviewed CPH representatives noted a high interest in community batteries and consultations on solar for homes, however, acknowledged that a lot of the interest came from people who already had strong environmental values. There was a sense that many of the events that were delivered would not have occurred without the CPH Program. Further, stakeholders commented that **a number of these events led to identifying new opportunities and pipeline projects.**

A total of 806 community energy enquiries were received by CPHs, in addition to 321 project proposals received. In interviews, some CPH representatives specifically reflected on receiving

⁹ Total sample size for the survey was 1,054 in 2021 and 1,050 in 2022. Sample sizes for each region was at least 150.

increased enquiries about renewable energy as a result of the engagement and events undertaken through the CPH, although this level of engagement was noted to be somewhat challenging for organisations now that the funding had ceased. As one lead partner identified:

The office was set up and fully operational only in Jan and now it's starting to take off and we are gathering momentum just now – every day, 6 to 10 people are putting in expressions of interest (CPH representative)

4.4 Increased capacity and capability to deliver renewable energy projects

Increased local capacity and capability to deliver community energy projects was identified by most interviewees as a key outcome of the CPH Program. Four program staff spoke explicitly about community empowerment and supporting local people to deliver local programs as a key intention of the program. There was a sense among program staff that giving community energy groups autonomy to use the resources and funding to benefit their region was a key step in transitioning to a net zero future.

Key points identified in relation to increasing the capacity and capability of community energy groups included:

- The **creation of new community energy groups** in regions where there had previously been none. The CPH Program is also likely to lead to a number of legacy outcomes due to the creation of a number of new community energy groups across the state. Importantly, a number of the projects that were established as a part of the CPH are now implementation-ready.

We've got two community energy groups funding ready for community batteries, so some significant ALP funding coming up for community batteries and they are both in a very strong position as soon as funding is released. (CPH representative)

- The Program also led to the **creation of revolving funds** in two regions (Barwon South West and Loddon Mallee) which will enable community groups to continue to access funding for their projects into the future, therefore maintaining their capacity for delivering renewable energy outcomes for their communities.
- **Increased staffing** as a result of the funding helped to increase community energy groups' capacity to deliver renewable energy projects. This was also identified as a key strength of the program's design (discussed further in Section 6.3).
- The **sharing of resources and lessons between groups** involved in the Hub was identified as a key benefit for Hub participants. Interviewees spoke about how this led to increased collaboration and efficiencies between groups, increased knowledge and skills, and increased motivation and confidence to deliver projects. They also identified that community energy projects often fail because they are not working in coordination with other groups.

*Being able to give the community energy groups a really broad spectrum of types of initiatives they could be working on, projects they can replicate and capacity building for their own groups [was a key outcome]. And being able to facilitate a lot more in terms of events that wouldn't have happened otherwise. **We're integrating a new sector of the community into the Renewable Energy space.***
(CPH representative)

*In terms of being able to make projects available through community energy offers to their community: energy bulk buys and community offers of solar and heat pump. **Those groups would not have had all of those things operating within the 12-month period without the help of the Hub.*** (CPH representative)

*Some community groups who were established were lacking in active volunteers and there were sometimes only 1 or 2 people representing that group for the whole community. The CPH was able to provide support and resources to those communities. From a volunteer perspective **they were unable to progress far on their own until the CPH came along and propelled them and gave them expert advice as well.*** (CPH representative)

Interviews with volunteers suggest that the CPH was also a positive experience for most:

- **3/5 of interviewed volunteers either agreed or strongly agreed that they had increased their skills and knowledge of renewable energy as a result their work with the CPH** (Figure 3). It is worth noting, however, that in most cases, volunteers noted they had prior knowledge of renewable energy and community energy, and that the program built on that foundation rather than established it.
- Speaking about the skills they had gained, for two, this was about increased awareness and understanding of a specific renewable energy option such as community batteries or charging station for EVs. Another volunteer spoke about lessons related to implementing projects within the policy and regulations landscape.
- When asked about whether the CPH had increased their confidence to pursue a community energy project, most interviewees 3/5 neither agreed nor disagreed, while 2 strongly agreed with the statement.

However, based on the five volunteer interviews conducted through this evaluation, the **CPH had a mixed effect on willingness** to continue volunteering:

- one interviewed volunteer stated they were 'very unlikely' to continue volunteering as a result of their experience with the CPH, citing the "enormous amount of hours" which led to them "hit[ting] a wall" and burning out as the main reasons to stop volunteering.
- one was 'very likely' to continue volunteering as a result of their experience with the CPH
- one was neutral about the relationship between the CPH and their volunteer work and two volunteers were 'unsure' or could not tell. Those participants who reported being unsure or 'neutral' about how the CPH had impacted their willingness to generally justified their responses on the grounds that their volunteer work extended beyond their engagement with the CPH, and that they would continue those engagements irrespective of their experience with the CPH.

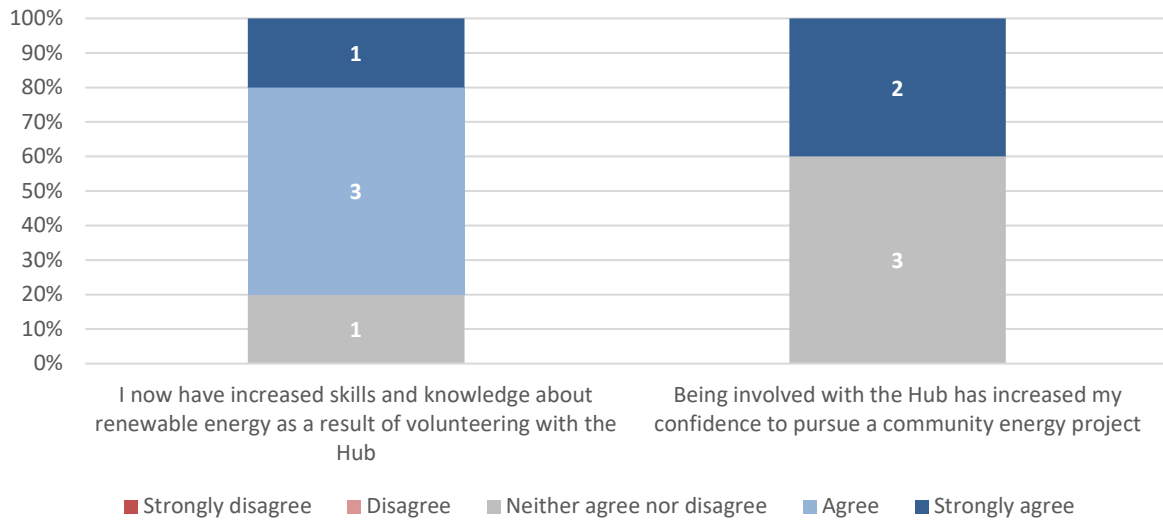


Figure 3. Volunteer level of agreement that they now have increased skills and knowledge about renewable energy as a result of volunteering with the Hub and that being involved with the Hub has increased their confidence to pursue a community energy project. n=5

4.5 Renewable energy generation, energy savings and flow-on benefits

There were a range of energy-related outcomes from the projects supported by the CPHs, including:

- **Installation of 1497 kW** of renewable energy capacity (Figure 4) and **energy efficiency measures** (e.g., upgrades to heat pumps) that are estimated to save 189,193 kWh a year.
- In turn, this is expected to **reduce emissions by an estimated 1,104 t CO₂e per year**.¹⁰
- It is also expected to lead to savings for those organisations who have participated in CPH projects, which are estimated to be **around \$207,435 per year**.

The Program did not achieve its installed capacity target of 2.5 MW in the 12-months of the initiative. However, Hubs have projects in the pipeline with an estimated capacity of 23.2 MW (Figure 5 and Table 2). If all pipeline projects were completed this would contribute a further 26,539 t CO₂e per year¹¹ of greenhouse gas emission savings.

We note that the projected kW capacity of all pipeline projects is ~15 times higher than the capacity achieved through the Program and this emphasises the significant potential benefits that could be achieved with longer-term support or a longer delivery window. This is further reinforced when considering the cost-per-tonne abated:

- For the Program as it has been delivered, the total cost to government for the expected 1,104 t CO₂e per year is \$247,500/year¹², or **\$224 per t CO₂e per year**.

¹⁰ Based on Value Quantification Tool, which uses the 0.96 kg CO₂e/kWh emission factor from the 2021 greenhouse accounts and applies it to the electricity savings estimated by CPHs.

¹¹ Based on SV's business rule that recommends 3.26 kWh daily generation per kW.

¹² Assuming a 20-year life to the solar systems and excluding private investment

- If all the pipeline projects are completed, the cost per tonne drops dramatically to just \$5.68 per t CO₂e per year. Even if, conservatively, only 20% of pipeline projects are completed, the cost for abatement is \$46.63 per t CO₂e per year for government.

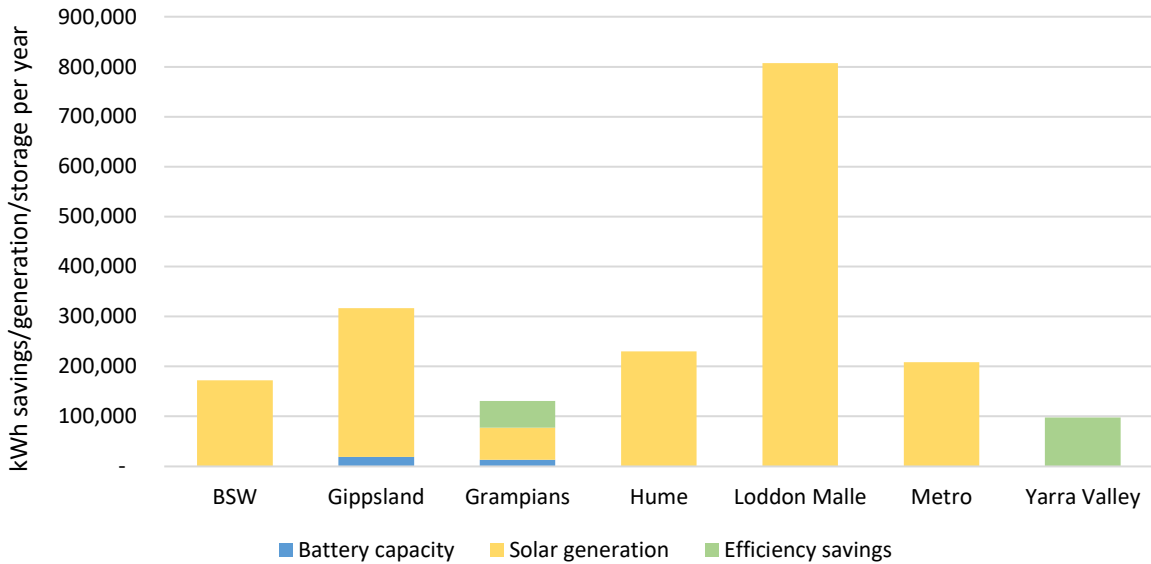


Figure 4. Annual renewable energy generation, energy storage and energy savings expected from projects that have been implemented through the CPHs. Note solar generation capacity is based on 3.3 kWh/day per kW installed, battery capacity has simply been annualised. Efficiency savings were already reported by CPHs in kWh/year.

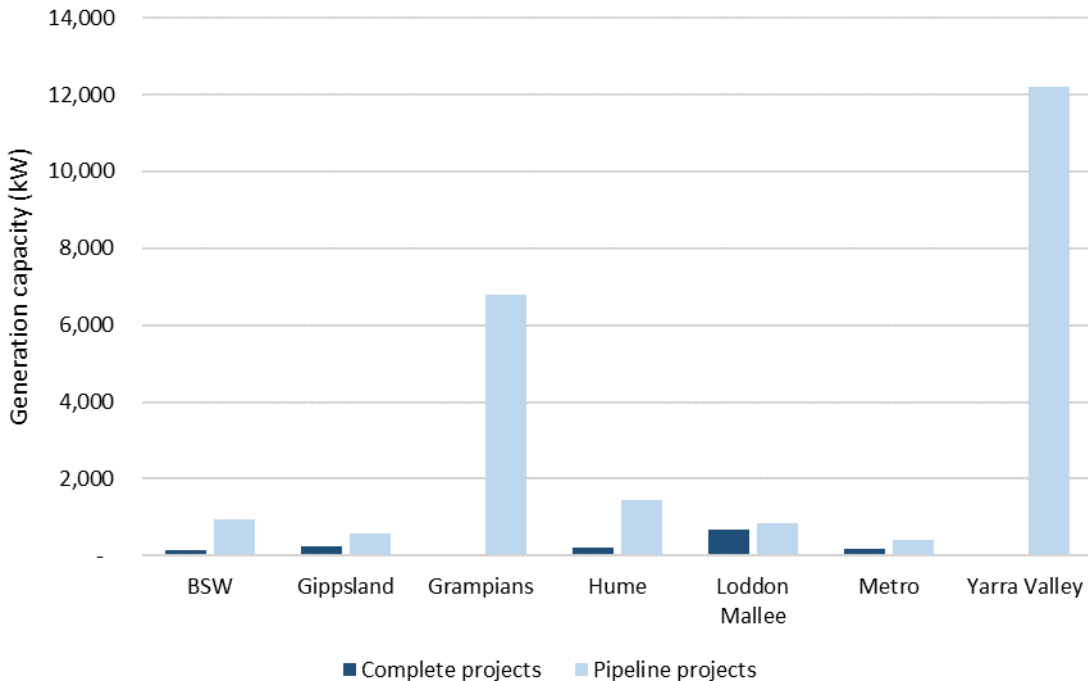


Figure 5. Capacity of renewable energy generation (solar) projects completed by each CPH alongside projected capacity of projects that are in the pipeline and have been supported by CPHs in each region.

Table 2. Summary of pipeline projects possible per CPH region. Note that proposed pipeline projects are a diverse range of energy efficiency/asset upgrade and renewable energy generation & storage projects.

CPH region	No. of future pipeline projects proposed	Proposed solar installs (kW)	Indicative estimated cost to plan and install (\$m)
BSW	13	950	1.3
Gippsland	15	580	1.0
Grampians	31	6800	25.5
Hume	39	1430	3.1
Loddon Mallee	26	840	0.8
Melbourne	9	413	1.3
Yarra Valley	12	12210	34.0
Total	145	23,223	67.0

4.6 Other outcomes

In addition to the outcomes identified above, some stakeholders identified unexpected outcomes of the CPH Program:

- The fact that funding wasn't extended past the 12-month delivery period was unexpected by many, given the success of the pilot program and the significant investment in the 2021-22 CPH program.

We didn't expect it would not be renewed – that has been a disappointment and it's disheartening to community groups – they understand the cycle of funding but we risk losing faith with community groups (CPH representative)

- While COVID-19 restrictions meant that a lot of events had to move to online delivery, online webinars were highly appreciated and attended.
- Some lead partners spoke about CPH 'unlocking' other funding sources for some community energy groups, as a result of having more understanding and awareness of funding opportunities.

In terms of the total value of the CPH program, we used the Value Quantification Tool from the CPH pilot to provide a rough estimate of the broader social value of the program. The different components of value included in this assessment are outlined in Table 3 based on the Tool assumptions. DELWP's modelling of the program's economic impacts shows that 22 jobs in regional Victoria and a further 4 in metropolitan Melbourne were supported over the life of the program. Overall, the program led to benefits that were 1.2 times the value of the government investment (\$4.95 million¹³). Notably, this is substantially less than derived from the CPH pilot, which, using the

¹³ This excludes \$1.0 million that, at the time of writing, is being put into a revolving fund to support implementation projects

same Tool and assumptions¹⁴, returned a ratio of 6.9:1 (dollars of benefits to government investment). We suspect the reason for the great difference in the ratio relates to the shorter delivery time for the current iteration of the CPH program and the limited funding for on-ground implementation, meaning projects could simply not be established in the time available.

Table 3. Additional components of quantifiable value for the CPH program, based on a Value Quantification Tool developed for the CPH Pilot.

Key component of value quantified by CPH Value Quantification Tool	Amount (over 10 years)
Energy savings	\$2,074,351
Reductions in emissions (social costs of carbon, with value estimated from offsetting with similar renewable energy source)	\$460,013
Improvements in awareness and knowledge about renewable uptake and energy efficiency (based on equivalent costs to reach and engage people)	\$1,409,134
Additional economic value from expenditure	\$1,953,000
Total	\$5,896,498

¹⁴ Note that we recalculated the value for the CPH pilot to be consistent with the assumptions used in this evaluation (Appendix 2): excluding volunteer/community investment as a benefit, reducing the investment lifetime to 10 years from 25 years and only including the 'additional value' from the economic analysis.

5 Appropriateness of program design

5.1 Overview

This section addresses the appropriateness of the program design, including the context of community energy and how community energy opportunities were selected. The below sub-sections broadly discuss:

- To what extent the program addressed a clearly identified need
- The appropriateness of the program's delivery mechanism was to achieve the intended outcomes
- To what extent the program has met the needs and expectations of stakeholders involved

5.2 Justification, context and need for the Program

Community energy is important because it can help address some of Australia's current socio-economic and environmental challenges. As it tends to be linked to community groups looking to have a positive impact on the environment, community energy can be used to support a transition to renewable energy and reduce greenhouse gas emissions, as well as air and water pollution.¹⁵ Additionally, community energy leads to increased awareness of renewable energy and understanding of what is needed for effective climate action.¹⁶

Community renewable energy has also been proposed as a possible solution to some of the socio-economic challenges faced in areas of regional Australia, where rapid population growth and depopulation are occurring concurrently in different areas. Community energy has been put forward by experts as a way to address the growing energy needs in areas where a growing population is putting increased pressure on the energy grid.¹⁷ However, in order to be successful, **community energy needs the right policy environment.**

In 2015, the Australian Coalition for Community Energy proposed that to make community-owned renewable energy in Australia viable, the following was needed:¹⁸

- Establishment of **ongoing grant funding programmes,**
- the formation of **a dedicated team within government to support community energy** projects, including helping to deliver elements of the National Community Energy Strategy and ensuring **regulatory barriers across all areas of government are removed,**
- funding and policy support for **capacity building training and support structures,**
- introduce **supporting policies to ensure a fair price is paid for community-owned renewable energy,** and
- **help community-owned renewable energy projects gain access to host sites,** particularly through making public buildings available.

¹⁵ [Community-Energy-Projects-Guidelines-Booklet-A4 -WEB.pdf](#)

¹⁶ [EEJSC Community Energy Projects gyHN0P8K.pdf \(parliament.vic.gov.au\)](#)

¹⁷ Coalition for Community Energy, <https://c4ce.net.au/aboutc4ce/what-is-community-energy/>

¹⁸ [Renewables-For-All-Community-Energy-2015.pdf \(cpagency.org.au\)](#)

The Victorian Government has also set a 50% by 2030 Victorian Renewable Energy Target (VRET 2030), which is embedded in the Renewable Energy (Jobs and Investment) Act 2017 (Vic) with legislated renewable energy generation targets of 25% by 2020 and 40% by 2025. In order to achieve these targets, there is a need to rapidly expand the number of renewable energy infrastructure projects (both generation and transmission).

Also of note, the 2017 Inquiry into community energy projects conducted for the Victorian Government found that¹⁹:

- Guides and toolkits are useful in the early stages of a community energy project's development, but **community energy groups require further mentoring and practical training to implement a project fully**
- **Intermediary organisations that provide community energy groups with advice, support, expertise and coordination can provide much needed assistance and boost the development of the community energy sector.**

There is a clear business need for the CPH program, as it allows a unique approach for Government to support community energy and local community engagement at the 'front end' of projects to enable the start-up work: the administration, coordination, and feasibility. Supporting the start-up work and developing robust project feasibility studies and business cases means that community energy projects have improved success accessing project implementation financing themselves based on a project feasibility study or business case rather than relying predominantly on grant programs.

Furthermore, **the CPH Program helps address one of the key barriers faced by community groups when attempting to implement community renewable energy projects - the heavy reliance on volunteers.** By employing expert staff to conduct the administrative work, lead capacity-building, and conduct feasibility studies, the CPH Program significantly improves the community organisation's governance, outputs, progress and achievements towards their objectives (e.g., communications, project planning, community engagement and support).

In terms of promoting the growth of the renewable energy sector, the CPH Program also contributes to the following Victorian Government strategies, plans and policies:

- the **Climate Change Act 2017**, which sets a target of net zero greenhouse gas emissions by 2050
- The **Renewable Energy Target**, which aims to increase renewable energy generation to 40% by 2025
- The **Renewable Energy Action Plan**, which aims to support the renewable energy sector's growth, empower communities and consumers and modernise Victoria's energy system.

5.3 Delivery mechanism

The delivery mechanism of the CPH Program is well aligned to its intended objectives. We note that the Victorian Government funded the Community Power Hubs program following the successful

¹⁹ [EEJSC Community Energy Projects gyHN0P8K.pdf \(parliament.vic.gov.au\)](#)

completion of the Pilot program that was delivered between 2017-2019, in response to the 2017 Victorian parliamentary Inquiry into Community Energy Projects which included a recommendation to:

“continue funding and consider expanding Community Power Hubs to other Victorian regions if results from the pilot program show they are valuable to the development of the community energy sector.”²⁰

Further, the 2020 Victorian Parliamentary Inquiry into tackling climate change in Victorian communities included a recommendation that:

“the Victorian Government extend and expand the Community Power Hub pilot program in support of the Victorian Renewable Energy Target.”²¹

Importantly, **the evaluation of the pilot program demonstrated that the model successfully addressed the barriers to community energy projects** and found that:

- the three pilot CPHs delivered 15 community energy projects from July 2017-June 2019, involving the installation of 1.35 MW of renewable energy, as well as integrating energy efficiency measures.
- Each year, these projects produce 1,705 MWh of renewable energy, reduce carbon emissions by 1,839 t.CO₂e and save the community energy project sites \$346,000 in electricity costs.
- the CPHs generated more than 14.5 million of value from the program within the pilot period, creating 13-to-1 leverage on the government investment in the program.
- CPHS had increased local support and understanding for renewable energy within their general communities.

While there was good evidence from the pilot that the delivery mechanism was effective, the CPH project plan also outlined a number of assumptions:

- That potential CPH Lead Partner organisations could respond to the grant application over the summer holiday period.
- That community energy groups wanted to and were willing to participate in the CPH, particularly within the tight timeframes imposed to establish and operate the program
- That CPHs can develop and maintain collaborative, supportive arrangements with community energy groups in their regions.
- That the financial incentive to establish CPH’s over an 18-month period²² is sufficient to drive uptake, despite the pilot evaluation recommending that a minimum four-year program is implemented to avoid volunteer burnout. This was seen to be particularly relevant for areas that didn’t have a pilot CPH.

²⁰ https://www.parliament.vic.gov.au/file_uploads/EEJSC_Community_Energy_Projects_gyHN0P8K.pdf

²¹ https://www.parliament.vic.gov.au/images/stories/committees/epc-LA/Inquiry_into_Tackling_Climate_Change_in_Victorian_Communities/LAEP_C_59-01_Inquiry_into_tackling_climate_change_in_Vic_Communities.pdf

²² Note that the Program ended up being delivered over a 12-month period.

- That implementation ready projects to be allocated funding within the first 6 months will not have already accessed funding from other sources.

Though the 2021-2022 program built on the CPH pilot program, we note that program delivery was condensed from four years to one year, which required accelerated program delivery for CPHs to be established and operational within the first 6 months of the program. Challenges and limitations associated with these delivery timelines are discussed further in Section 6.3 below.

Another key point in relation to the design of this iteration of the CPH program is that **CPHs that had previously had a pilot Hub in their region were able to build on the work done in the pilot and had some implementation ready projects already in the pipeline.** The variance in progress for each CPH suggests that a tailored approach to regions that had not previously had a pilot Hub in their area may have been beneficial.

Through the CPH Program, **SV also established a Sustainable Finance Mechanism (SFM) which aimed to provide zero-interest loans for implementation-ready, community clean energy projects.** The zero interest repayable grants require a 1:5 co-contribution from the grantee and are to be repaid within a 5-year period from cost-savings or income generated from the project. While the aim of this mechanism is to support the further delivery of community energy projects, some lead partner organisations felt that the timing of the fund did not align well with the development and establishment of projects through the CPH. Additionally, SV Program staff noted there has been limited uptake of the SFM grants between 1 Nov 2021 – 30 Aug 2022, reflecting a need to perhaps reconsider the eligibility requirements as well as how to better communicate and promote the funding to relevant groups.

When asked to reflect on the design of the program, responses from SV Program staff were positive.

- All 6 SV staff agreed that the program addressed a clearly identified need.
- **All 6 interviewed SV Program staff agreed that the program’s design is directly and strongly linked with its intended outcomes,** with 4 (67%) strongly agreeing with this statement.

5.4 Stakeholder needs and expectations

CPH representatives provided mixed sentiments on whether the program had met the needs and expectations of the community. Six of interviewed CPH representatives reported that they were ‘somewhat satisfied’ in regard to this, while another six were ‘quite satisfied’ or ‘very satisfied’ and one was ‘not at all satisfied’ (Figure 6). In general, the lower satisfaction scores seemed to stem from:

- The **duration/ timeframe of the program,** which is seen as unrealistic and not well aligned with the time requirements of community energy projects.
- The flexibility of the funding and a lack of understanding by community groups as to **how the CPH was allowed to use its funding,** which meant that in many cases, the CPH ended up providing feasibility studies and skills assistance, not direct financial assistance to community energy groups.

A summary of the design elements that worked particularly well and not so well is provided below in Table 4.

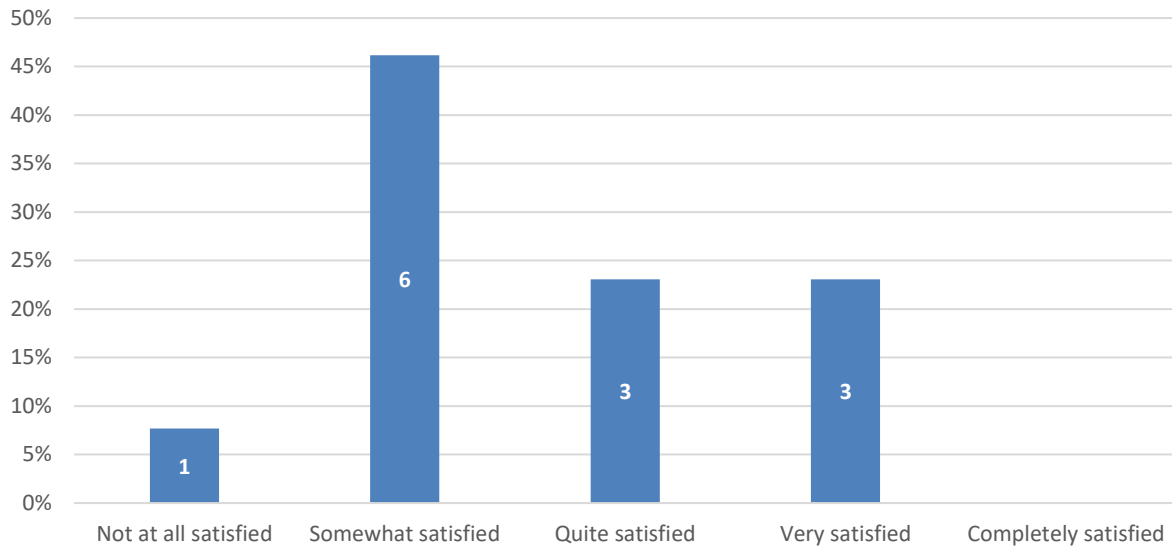


Figure 6. Lead partner satisfaction that the CPH program met the needs and expectations of community members (n=13)

Table 4. Summary of design elements that worked well and elements that could have been improved.

Design elements that worked well	Design elements that didn't work so well
<ul style="list-style-type: none"> • Region-wide engagement and collaboration rather than city/major regional city centric design) • Ability for CPH lead partner organisations to use grant funding to hire staff • Dedicated SV staff support for each CPH region • CPHs that had previously had a pilot Hub in their region were able to build on the work done in the pilot and had some implementation ready projects already in the pipeline. 	<ul style="list-style-type: none"> • Change in definition of what constituted a 'completed project' • Collaborative governance • Timeframe of 12 months only allowed a certain amount of project planning and progressing projects to implementation-ready • Focus of CPHs on information provision rather than solar panel installation etc. • A lack of flexibility to transfer 'establishment' funds to 'implementation' funds once Hubs had developed and helped establish community energy groups in the region.

6 Program delivery

6.1 Overview

This section relates to the key evaluation question ‘To what extent was the program delivered effectively and efficiently?’ To respond to this question, we have drawn on evidence to discuss:

- what activities were delivered
- the strengths and limitations of program delivery
- how well the program adapted to challenges
- how well the program was managed overall
- to what extent the program was delivered in line with its planned budget, timeline and scope.

6.2 Delivery of activities

The CPH Program has been delivered in line with the original intent as documented in the project plan. The role of the Community Power Hubs was to identify feasible community projects and assist the community groups to overcome barriers that arise in progressing from concept to capital raising stages. The CPHs created a link between community groups who require specialist skills and expertise to progress their project to a capital raising status, with providers of that service. Each CPH was required to establish a collaborative governance model. Services provided by each CPH varied, but included activities such as:

- legal advice
- technical assessment
- feasibility studies
- community engagement events
- grid connection negotiation
- negotiation of energy agreements
- financial viability assessments
- project coordination services
- capacity building and troubleshooting services

A summary of delivery for each CPH is provided in Appendix 3.

At the program level, Sustainability Victoria provided:

- Grant funding to establish and operate the 7 CPHs
- Grant funding for 16 implementation ready projects
- Training and capability building opportunities
- Coordination of network events (i.e., quarterly forums)
- Design and delivery of a sustainable finance mechanism providing access to capital for small and mid-scale community energy projects

At the individual CPH level, Sustainability Victoria provided:

- a dedicated SV staff member who worked closely with each CPH
- support for project implementation and community energy projects

- advice on planning and grant application development

Key delivery outputs as reported by CPHs include:

- 51 projects reported complete across the 7 CPHs, including:
 - 33 solar install projects
 - 18 other projects, such as webinars, community events, research studies and resources
- 282 community events held, with 19,056 attendees
 - 182 small-scale (<20 participants) community events
 - 78 medium-scale (20-100 participants) community events
 - 22 large-scale (>100 participants) community events
- 321 project proposals received that required action from the Hub (including referrals, consulting and expertise to progress projects)

6.3 Delivery strengths and limitations

A range of strengths and limitations to program delivery have been identified. Key strengths include:

- **The level of support provided by SV to CPHs and lead partner organisations (7).** CPH representatives highlighted the value of this support which was facilitated through regular meetings with their local regional SV contact. The quarterly forums were also identified by five CPH representatives as particularly beneficial in allowing CPHs to collaborate and share resources and lessons. The fact that the meetings were facilitated online also meant that more staff and volunteers could easily engage and contribute.
- **The ability to use the grant funding to employ CPH staff and build organisational capacity,** rather than just energy project implementation (7). This was seen as a key benefit of the program, and something which set the program apart from other community energy grant programs.

Allowing the support for the project development to get it up and going rather than just giving money for a project – and that was an evidence-based decision from years of advocacy (SV Program staff 2).

- **The regional spread of Hubs across the state** (and having an SV Lead in each region) was identified as another key strength of the program (5).
- **The enthusiasm and motivation of CPH representatives (5).** Many interviewees specifically commented on the level of effort and time that both SV staff, CPH representatives put into the project. Engagement officers were also seen as a key strength in increasing engagement and conversations about community energy.

The people involved in the CPH – the paid staff were excellent; really good at their jobs and did a fantastic job. The representatives from the various community energy groups were also a good bunch of people. (CPH representative)

- **The focus on building the capacity of community energy groups and volunteers (4),** which was a key objective of the CPH Program. The support for development rather than just funding implementation-ready projects was seen as a particular strength of the program.

Some community groups who were established were lacking in active volunteers – sometimes they only had one or two people representing that group for the whole community and it was a big burden for those individuals. The CPH was able to provide support and resources to those communities (CPH representative)

- **The baseline statewide community survey and data that was shared with Hubs was also identified as particularly useful (4).** Providing the Community Power Hubs with energy awareness and attitudes profiles gave CPHs and community energy groups an understanding of where to focus their efforts, intervene and offer support.
- The collaboration and coordination that was fostered between community energy groups (3).

There were a range of challenges and limitations that hampered successful delivery of the CPH program. These included:

- **The short delivery timeline was identified as the major limitation of the program (16).** Notably, the CPH Pilot evaluation recommended that the timeline for CPHs should be four years to have a strong establishment phase, see more of the projects realised on the ground and enable more time for awareness raising. While the Pilot was essentially delivered over three years (2 years pilot plus an additional year of funding provided to CPHs), this iteration of the CPH Program had only 12 months to be delivered. Delays were also experienced in the early periods with lead partner organisations employing staff and creating contracts before they could set the Hub up, condensing the period for CPH delivery even further. The expectation for Hubs to be established and delivering projects in this timeframe was felt to be unrealistic by both program staff and lead partner organisations.

The timeframe was very condensed – it was supposed to be 12 months but by the time staff were onboard, there were only 9 active months of the program and the first couple of months is about getting to know your networks and understanding the dynamics, so it was only effectively a 6-month program...and then with Christmas and New Year it was only really 5 months [of delivery]. (CPH representative)

While CE groups were able to undertake a number of successful projects, interviewees commented on the lack of time for the level of community engagement that was required for larger projects.

Macro activities like microgrids and community batteries – you can't do those in 6 months. There was little time for community engagement – these are community activities that require a lot of engagement and relationship not just some funds. (CPH representative)

Governance challenges (6). Establishing an effective, collaborative governance structure for each CPH was a core intention of the program. As noted in the pilot CPH evaluation report, collaborative governance aims to align the strategies and resource allocation of multiple organisations to encourage integrated service delivery, delivery of shared priority outcomes, shared learning and relationship building. Each CPH implemented slightly different governance structures due to the mix

of organisations and stakeholders involved, with some CPH representatives identified governance challenges specific to their Hub, including:

- the Roundtable Advisory Group (RAG) meetings were more commonly used as a forum to communicate RAG members of the progress instead of as an advisory function
 - Competing priorities of member groups led to some disengagement with the RAG
 - A lack of representation from First Nations peoples
 - Instances of agreements being entered into without approval from the group
 - An over-reliance on lead partner organisation staff and volunteers compared to other member organisations, which was likely compounded by the significant aspirational targets that were set for the program.
- **Data management and reporting challenges (6).** Comments from interviewees were centred around:
 - quarterly reports and milestone reports were burdensome and required a lot of admin resourcing, particularly given the project timeframe
 - reporting templates were unclear (and appropriate CPH representatives weren't trained in how to report)
 - too much detail was required (but some interviewees also felt that the templates limited what they could report on)
 - difficulties of collecting consistent data from the different CE groups involved for reporting

On that reporting side – because of the timeframes, some of the training on milestones reporting had to happen before a lot of the staff were employed – the appropriate people didn't get training which put a lot of pressure on volunteers to do a lot of the document forming. (SV Program Staff 2)

- **A lack of clarity around expectations (5).** Feedback from CPH representatives suggest that this was mainly to do with what was in and out of scope of the funding, however, some organisations felt that there was a lack of guidance from SV, particularly around grant applications, delivery and who to engage with. Further, some CPH representatives noted that towards the very end of the program there was an update to the definition of a community energy project which created some challenges.

We had fortnightly meetings [with our SV officer], they said 'yes you're on the right track' and then in month 10 when the project was done and dusted, they said SV in a meeting had changed the definition of what constituted a community energy project and that left us in a difficult situation...what we had been focusing on for 10 months as major projects were no longer considered energy projects. (CPH representative)

- **A perceived lack of flexibility (5).** This was noted as a particular challenge by three lead partner organisations in relation to the two streams of funding. These organisations

expressed frustrations with not being able to direct any of their feasibility budget to implementation-ready projects as projects were developed.

- **No legacy or plan for how to continue or sustain beyond the funding period (5).** Both SV staff and CPH representatives identified that the program ended abruptly following its planned one-year period of CPH establishment and delivery. Some lead partners felt that SV had initially been confident that the CPHs would receive further funding beyond the one year and this was communicated to their Hub. Other interviewees expressed concerns that momentum would be lost without further funding as community energy groups would no longer have access to the same resources or support without the Hub continuing.

Other limitations and challenges identified in interviews included:

- COVID-19 and lockdown related challenges to delivery
- organising professional indemnity insurance (which two lead partner organisations specifically commented that they didn't think was necessary)
- conflicting priorities between organisations participating in a Hub
- communication challenges – with community energy groups and also with SV staff
- volunteer burnout
- other Hub specific challenges. For example, one CPH had multiple 'lead' organisations which created some tensions and challenges within the group due to conflicting priorities and processes.

6.4 Adaptation to challenges

We note **that the program has adapted to a range of challenges and external factors throughout implementation** – with many interviewees noting that many events were successfully delivered online as a result of COVID and associated lockdowns.

The lockdowns meant that there were further challenges in having to adapt to working differently but a positive [of that] was the capacity built around the online space; and now people who are very isolated geographically can reach other people (SV Program Staff 02)

Other examples of adaptive management identified includes:

- individual CPHs responding to alternative funding opportunities that came from outside SV (e.g., Solar Victoria), and shifting particular projects to that other funding. SV Program staff noted that participating in the CPH didn't stop groups from applying for other grants.
- having the SV regional lead meeting with the lead partner organisations before each milestone was delivered allowed them to provide feedback and ensure that the project was on track or if not, to suggest ways that the CPH could adapt what they were doing.
- the SV regional lead adopting the position of Chair on one of the regional CPH governance groups as a result of disagreements within the group. This change allowed the group to develop and adapt to a new process for prioritising projects.
- SV being flexible in undertaking a project replacement process where two separate CPHs proposed new implementation-ready projects to replace projects that either weren't viable in the timeframe of the program, or had received funding from other sources.

6.5 Program management

Despite design and delivery limitations associated with the short timelines, the CPH Program appears to have been well managed by SV based on its scope, context and intended outcomes.

- All interviewed lead partner organisations reported some level of satisfaction with SV's management of the program, with 46% (6) of interviewees describing themselves as 'quite satisfied', and 38% (5) as 'very satisfied' (Figure 6).
- All SV Program staff agreed or strongly agreed that the program had been effectively managed by SV. Reflecting on their own program management, SV staff noted the value of having individual representatives for each CPH region, which meant that relationships with relevant CPH representatives were prioritised. The importance of these interpersonal relationships was highlighted in interviews where CPH representatives expressed an appreciation for the energy and commitment that SV put into the project.
- Lead partner organisations also provided more specific positive feedback on the regional SV staff and noted that they were supportive and personable through the program.

I'm happy with SV's involvement and they do provide good leadership and are cooperative (CPH representative)

- Feedback on the quarterly forums was generally positive, with lead partner organisations reflecting that these were well coordinated by SV.

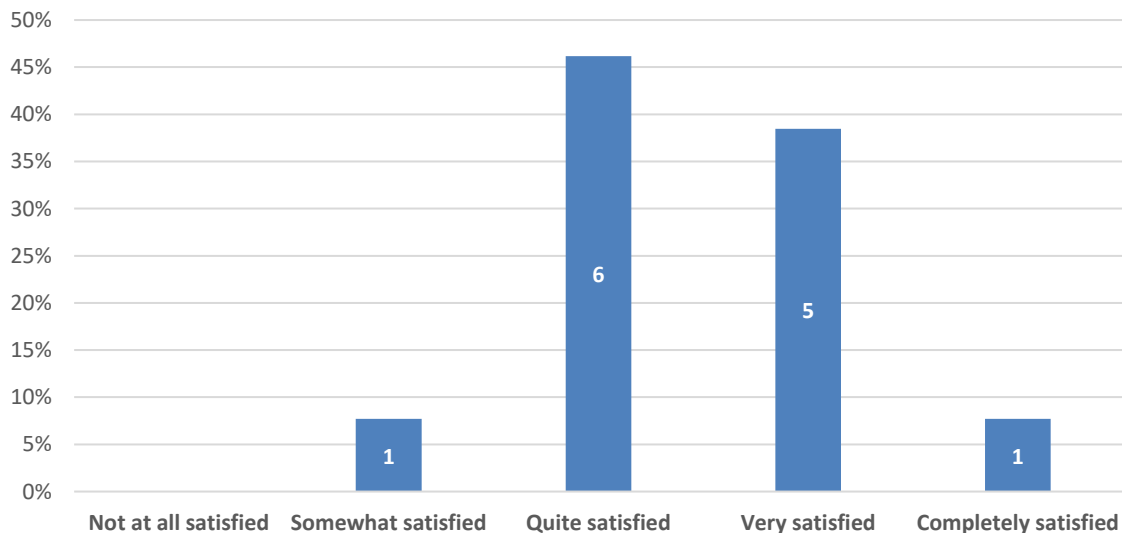


Figure 7. CPH representatives reported satisfaction with SV's management of the program (n=13).

Key aspects identified related to how the program management could have been improved include:

- clarity and communication issues around the definition of a ‘community energy project’, and the fact that it could include any project which benefits a community even if it was delivered through a local business (also identified as a limitation in Section 6.3)
- Lead partners and some SV Program staff identified that SV had provided training too early in the Program before the CPHs had employed staff which created a missed opportunity to effectively upskill and build the capability of relevant CPH representatives.

6.5.1 Scope, timeline and budget

The key point in relation to the scope of the CPH Program is that the program was given 12 months to deliver rather than the recommended 4 years. Despite this, **the program has been delivered within the timeframe, with the 7 CPHs successfully acquitting their grants.**

Table 5 below outlines what was in scope and out of scope of the CPH Program.

Table 5. Summary of components in and out of scope for the CPH program funding.

In scope	Out of scope
Administration costs (including staff) directly related to the development of the Community Power Hub and the delivery of its agreed activities.	Funding for Commercial or For-Profit organisations and projects.
Monitoring and evaluation of the local impact and benefits of the Community Power Hub program through quarterly reporting from each CPH, which will in turn inform the CPH program evaluation which will be conducted through an external contract.	Salary and administration cost (e.g., utilities, insurance) for duties or roles incurred by the CPH Lead Partner organisation that do not relate to CPH contracted work.
Establish a network to share information and learnings with other stakeholders including State Government Agencies, community groups interested in community energy, local government and service providers. SV will assist with the set-up of this network.	Project implementation related to electric vehicles (EVs) ²³
Fostering leadership development and capacity building of community energy groups and the broader community	Research and development projects
Raising the profile of Community Energy and the contribution it can make to the overall energy mix	Initiatives or Projects that involve unproven or emerging technologies
Finite funding provided for capital works to fast-track implementation ready community energy projects	Initiatives or Projects that do not encompass clean energy (renewables, energy efficiency, storage)
Development of a sustainable finance mechanism to support an alternative approach to supporting community energy initiatives beyond government grants.	

²³ We note however that some of the events held and projects to come out of the CPH Program were related to electric vehicles.

The Victorian Government allocated \$5.94 million to the Community Power Hub program (the Program) as part of its \$1.6 billion renewable energy package in the Victorian Budget 2020-2021 (

Table 6). The funding came from the Department of Environment, Land, Water and Planning's Energy division. As outlined in the Transfer Payment Agreement for the program, \$1 million was allocated to program staff, which was distributed across an SV coordinator in each region, Regions team manager, comms and sustainable finance.

A total of \$3,666,270 was provided in grants:

- Each CPH received \$428,400 in funding to establish and operate a Community Power Hub in their region.
- Four of the seven CPHs also applied for funding for implementation ready projects and were successful in securing funding for projects at 16 sites to have solar energy systems installed (Table 7), with overall funding for these projects totalling \$730,571.

The amount of overall funding an individual CPH received (including for implementation ready projects) is commensurate with the amount of kW capacity installed (Figure 8).

\$1 million was allocated to the Sustainable Finance Mechanism - Repayable Grants. This was opened for applications during November 2021 to July 2022, but it did not receive any completed applications. Following a redesign, the fund was re-opened to applications for Community Energy Projects between 1 September 2022 – 31 October 2022.

In addition to the funding provided through the grants, CPHs leveraged a total of \$1,948,140 from other funding sources and in-kind labour costing \$106,090 (Table 8).

Table 6. Project budget as outlined in the project plan.

Project costs	\$ million including GST
Staff	1.00
Professional services	0.15
Sustainable Finance Mechanism	1.00
Grant to CPH Lead Partner organisations	3.00
Implementation ready project funding	0.80
TOTAL	5.94M

Table 7. Funding received by CPHs to deliver implementation ready projects. Note that 15 of the 16 projects have been completed.

CPH	Project	Project solar/battery capacity	Funding (\$)
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Geelong Sustainability Group – Barwon South West	Geelong YMCA	60kW solar PV	\$63,082	
Gippsland Climate Change Network - Gippsland	Venus Bay Community Centre	9.9kW solar PV and 26.4kWh battery	\$49,000	
	Coronet Bay Community Hall	11.84kW solar PV	\$12,318	
	Gormandale Community House	5.18kW solar PV	\$8,158	
	Heyfield Wetlands Information Centre	13.34kW solar PV	\$8,350	
	Lucknow Football Netball Club	14kW solar PV and 42kWh battery	\$46,200	
	Mallacoota Water Treatment Plant	39.6kW solar PV	\$48,450	
	Neerim South Hospital	99.8kW solar PV	\$31,819	
	Yarragon Church	6.48kW solar PV	\$6,906	
	Indigo Power in partnership with Goulburn Valley Community Energy – Hume	Moyola Aged Care Tatura	136kW solar PV	\$59,964
		Yea Community Shed	8.14 solar PV	\$12,250
Bendigo Sustainability Group – Loddon Mallee		Bendigo Jockey Club	99kW solar PV	\$83,215
	Bendigo Woollen Mills	96.3kW solar PV	\$76,114	
	Hazeldenes Bald Hills	99.9kW solar PV	\$64,703	
	Hazeldenes Laanecoorie	99.9kW solar PV	\$65,042	
	Mildura South Regional Sporting Precinct ²⁴	99.9kW solar PV	\$95,000	
TOTAL			\$730,571	

Table 8. Overall summary of total funding leveraged by CPHs as reported in their final reports.

Funding source	Total leveraged (\$)
Donations	177,020
Other Victorian Government grants	251,028
Grants/philanthropy	253,293
Investment	117,637
Project site contribution	54,439
Funding from Hubs' own budgets	841,302

²⁴ The Mildura South Regional Sporting Precinct has been delayed and is not yet completed.

Other	253,421
TOTAL	1,948,140

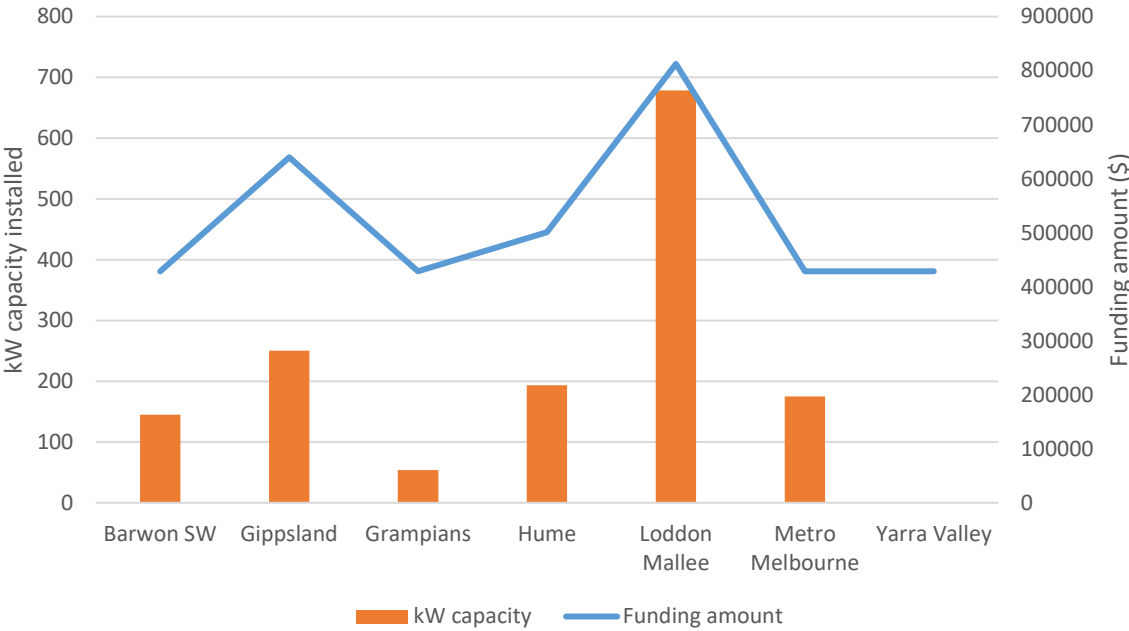


Figure 8. Total grant funding received, and the total kW capacity installed by each CPH.

7 Lessons and opportunities

Through interviews and project reports, SV staff, CPH representatives reflected on the overall lessons of the Program and identified some opportunities for future program design and delivery. Each of the seven CPHs also provided some feedback on strengths, weaknesses and lessons in their final reports which are synthesised in Table 9.

- **Timeframes were a key underlying theme of all interviews, with 12 stakeholders specifically commenting on delivery timeframes when asked about lessons and opportunities.**
 - As identified in the some of the CPH final reports, inherently, community energy projects take several months to develop and receive approvals, both from relevant authorities and from the communities which they intend to benefit. Some suggested that the Program should have focussed on smaller projects because of the short delivery timeline, which would have resulted in more completed projects.
 - Some interviewees noted that if CPHs could employ people for 2 or 3 years, they could have had much better outcomes to provide continuity in the community. More time would also allow CPHs to be further developed and self-sustaining.
 - Some lead partner organisations raised the issue of retaining good staff when only employing them for 9 months. There was a sense that many groups would go back to relying on volunteers without the resourcing for staff time, which would result in less capacity to deliver projects.
 - Multiple CPH representatives commented that they would have been happy with less funding but more time for the project. Overall, as discussed earlier in the report, there was a sense that the expectations on CPHs and particularly Lead Partner organisations were too high in the given delivery period.

Should've been more realistic rather than optimistic in terms how long the program and funding would last - maybe focus on small projects that can be completed instead of helping with projects that were too big for the timeline (CPH representative)

- **Opportunities to improve governance** were identified specifically by nine interviewees, although this was also a common theme in many interviews. Lessons related to governance generally fall under two categories:
 - governance and oversight processes from SV
 - a need to improve Hub governance processes

For CPH governance, interviewees spoke about the importance of collaborative governance between all of the stakeholders involved, and not losing sight of the guiding documents and agreements that were made at the beginning of the process. Others felt that there could have been further guidance from SV on how to effectively govern their CPH, which may have included some further capacity building activities or training on this throughout the program.

- **Data management and M&E processes** – Most interviewees identified opportunities for improving data management, reporting and M&E processes, whether internally at SV or from a CPH perspective. This included:

- Considering less reporting requirements from CPHs and lead partner organisations. Most interviewees from lead partner organisations reflected on the time and resourcing that was required for reporting back to SV.
- Employing a single data management approach internally at SV (e.g., having a master spreadsheet for all projects and data), and consistent data tracking across the program team.
- Considering how to capture and quantify outcomes such as culture change and increased knowledge and capacity of communities to engage in a transition to renewable energy more effectively.
- **The benefits of providing grants that allow groups to fund staff.** As identified elsewhere in this report, this was a key strength of the Program and effectively addressed a clear need for community energy groups who often rely on volunteers. Supporting community volunteers with paid staff builds the capacity of a community group to implement activities and projects that are intensive. Organisations noted that the more complex projects required resourced staff with the right skillsets, expertise and time. Funding staff time was also seen to help more effectively establish a community energy group:

Our company started through that funding. We needed one year to do all planning work for it, and it wouldn't have happened without being able to [pay staff]. Now we're ten staff and doing a lot of interesting [work] but we needed that kick off from the government to do that, it's not something [you can] just launch. (CPH representative)

A key lesson in relation to hiring staff is that in most cases, hiring took 2-3 months which meant that contracts ended up running 2-3 months beyond the program delivery period. Lead partner organisations also reflected that the short timeframes deterred applicants.

- Related to the above, **there is a need to focus on increasing capacity for volunteer recruitment and retention.** Many interviewees referenced volunteer burnout which in some cases had previously resulted in groups turning down offers of grants or work because of the capacity challenges.

It's difficult to attract volunteers these days – not just in community energy but across the board. There are so many onerous conditions to run a volunteer group especially in terms of finance and admin and most people aren't interested. So the solution is to have volunteer groups who are spared those tasks by having the tasks centralised in a hub (CPH representative)

- **The value of collaboration between Hubs.** This evaluation highlighted the outcomes associated with increased collaboration between community energy groups in their regions as a result of the CPHs, however, there may have been value in facilitating further knowledge sharing opportunities between Hubs. While SV ran quarterly forums where the Hubs came together, several lead partner organisations reflected that more regular (i.e., monthly) meetings and communication between CPH representatives would have benefited them and may have led to increased efficiencies and less duplication of work.
- The **value of engagement** was also highlighted as a key lesson. Interviews highlighted the value of identifying local stakeholders and champions to help get energy projects up and

running in the community. CPH representatives also specifically reflected on **the importance of engaging with councils to help spread the word** about the CPHs as they are able to use their existing communication channels to reach community members. Interviewees also noted that the level of council engagement was different in different regions and spoke about the challenges involved when councils don't have an existing strategy in place to provide resources and support for community energy projects.

There was a strong level of interest on solar for home and energy consultation but interest was very dependent on council promotion as the most reliable channel (CPH representative)

Though councils are important, there's also often a tension between community energy groups and councils. Community Energy Groups feel like councils aren't doing enough, it can be a difficult relationship and hard to manage at times (CPH representative)

- **The importance of clarity but also flexibility with funding streams.** Related to this, interviewees mostly spoke about the importance of clearly communicating the types of projects that were eligible for project expenditure. Some lead partner organisations felt that more flexibility was required in terms of allowing groups to adapt and spend the funding on the types of projects that the community needed. As identified earlier in this report, some identified that there would have been value in being able to shift funds that they had received from the establishment stream to implementing projects as relevant and needed.
- **Feedback from CPH representatives suggests a need for ongoing funding to support community energy groups to deliver solar projects.** There was a concern that activities and capacity would decrease and there would be a loss of momentum without recurrent funding. Overall, while the governance and capacity building aspects of the program were seen as valuable, there was sense from SV Program staff that future programs should prioritise grants and funding implementation in regions that are more advanced with implementation ready projects if the focus is on decreasing greenhouse gas emissions. In regions where there are less implementation-ready projects, programs like CPH aimed at supporting the establishment of community energy groups would be more beneficial.
- **Implementation-ready projects require resources to deliver.** Though there are now a reported 272 projects in the pipeline across all 7 CPHs, interviewees noted that without funding these projects would likely not be implemented.
- **The quarterly forums were identified as a valuable way to share information and lessons** between regions and Hubs. However, there was a sense from some CPH representatives that the forums could have covered more relevant topics and been more practical.
- **There is likely a need to target increased engagement activities in areas that don't already have community energy groups or where the community is less environmentally progressive.**

Table 9. Synthesis and summary of CPH representatives feedback on components of the program as reported in their final reports. Note the number in brackets reflects how many CPHs commented on a certain point.

Component	What worked well	What didn't work well and could be improved	Lessons / opportunities
Program design and delivery mechanism			
A CPH that facilitates and supports the development of local community energy projects	<p>Ability to support community energy groups in developing and delivering feasibility studies, doing background work, documentation and grant research (6)</p> <p>Identifying needs in the community (2)</p> <p>Community engagement events (2)</p> <p>Employing staff (2)</p>	<p>Short timelines and uncertain funding future (7)</p> <p>Limited access to other grants or funding opportunities (2)</p> <p>Sust. Finance Mechanism unfit for purpose (2)</p> <p>Lack of connection with community orgs. and energy distributors due to competing priorities and travel distances (2)</p> <p>Unable to spend CAPEX on solar/ lack of capital funding for CPHs</p> <p>Some community groups lack resources and overly rely on CPHs to deliver projects</p> <p>Expecting consensus on how funds would be allocated</p>	<p>Provide funding over longer timeframes (7)</p> <p>Need to determine skill levels in community groups (2)</p> <p>Focus on fewer but larger projects (2)</p> <p>Coordinate grant rounds to better align with CPH timeframes</p> <p>Tailor approaches to communities</p> <p>Develop mentoring program for new and emerging groups</p> <p>Build strong relationships with councils</p> <p>Clearly define roles and responsibilities</p>
Program management			
Project Delivery Plan	<p>Helped staff guide project and overcome emerging challenges (3)</p> <p>Included a wide range of projects, including different complexities (2)</p> <p>Allowed lead partner to gauge staffing requirements</p> <p>Project manager provided regular updates to the Project Control Group</p> <p>Project Control Group collaborating with community engagement officers</p>	<p>Lack of revisions (2)</p> <p>Became less relevant as program progressed due to changes in program</p> <p>A lot of work for one Project Manager</p> <p>Use of jargon</p> <p>Not decisive or directive enough</p>	<p>More revisions so there is always a plan for delivery (3)</p> <p>Share all key documents with whole team</p> <p>Use PDP as part of reporting</p> <p>Holding more webinars and info sessions to inform about the work being done</p> <p>Faster hiring process to start working earlier</p> <p>Keep it simple and streamlined</p> <p>Ensure all parties are clear on responsibilities</p>
Project budget	<p>Regular updates and review to budget (4)</p> <p>Regular CPH budget meetings (2)</p> <p>Project prioritisation exercise to determine where to spend the money</p>	<p>SV's budget format is too simple for a project this size</p> <p>Changes during delivery meant budget needed regular updating</p> <p>Problem budgeting for wages when onboarding was 3 months after program start (meaning staff</p>	<p>Collaborative budget planning (2)</p> <p>Use budget forecast vs actual expenditure to maintain accurate expenditure during delivery (2)</p>

Component	What worked well	What didn't work well and could be improved	Lessons / opportunities
	<p>Budget allowed for programs, events, projects to take place</p> <p>Using robust figures</p>	<p>contracts end 3 months after the end of program)</p> <p>Short contracts do not align with timeframes for feasibility studies</p> <p>Not being able to use funds as capital expenditure</p> <p>challenging to find consensus on expenses</p> <p>Not enough oversight of budget</p> <p>Team unaware of budget</p> <p>Having to bring in external contractors to help with budget, at organisations own' expense</p> <p>Poor budget planning</p>	<p>Start with project prioritisation exercise and use as basis to determine budgets</p> <p>Pre-select either a few big projects or only small-scale projects</p> <p>Have some capital funding to leverage more funding</p> <p>Allow flexible timeframes in utilising budget for pipeline projects</p> <p>Simplify the options for suggested ways for CPHs to use funds</p> <p>Prioritise small projects</p>
Communications training	<p>SV comms training at start of program was useful (2)</p> <p>Employed staff with relevant skills (2)</p> <p>Resources provided were transferable to other areas of work</p> <p>Provided a basis for comms/engagement approach</p> <p>Allowed a wide range of people to participate</p> <p>The CPH is a good platform to develop communications and marketing skills</p>	<p>SV comms training happened too early in delivery (4)</p> <p>Comms trainers giving wrong advice</p> <p>Hard to get approval from funding authorities</p> <p>Small community groups intimidated by IT and other areas of skills gaps</p> <p>CPH requires significant communication efforts</p> <p>Not enough staff to meet communications needs of CPH</p>	<p>Run comms workshop later in implementation (2)</p> <p>Make comms workshop accessible to all community energy groups across region</p> <p>Clearer messaging</p> <p>Undertake prior assessment of skill level among community groups</p> <p>Dedicated comms staff for the CPH</p> <p>Councils remain primary engagement pathway with community for sustainability issues</p> <p>Use more resource-intensive, on-the-ground strategies e.g., billboards</p>
Stakeholder and Community Engagement plan	<p>Utilising a wide range of engagement methods (events, zoom, community meetings, exhibitions, phone calls) (2)</p> <p>Helped define target audiences (2)</p> <p>Served as basis for more detailed comms plan</p> <p>Hiring local community engagement officers</p> <p>Volunteers contributing huge amounts of time</p> <p>Realistic targets</p>	<p>Had to be ready prior to staff ready – too much work for volunteers</p> <p>Staff didn't actively participate in Plan design</p> <p>Lack of knowledge of RE in the community</p> <p>Lack of technical knowledge amongst staff</p> <p>Hard to predict Covid restrictions</p> <p>Never reviewed or went back to plan</p>	<p>Better alignment of Plan milestone and staff onboarding timelines</p> <p>Use local people for community outreach</p> <p>Publicise events more and more social media</p> <p>Use networks beyond own region to learn from others</p> <p>More intra-CPH collaboration</p> <p>Stakeholder list could be longer than the one contained in plan</p>

Component	What worked well	What didn't work well and could be improved	Lessons / opportunities
	Plan being incorporated into organisations Project Management System for ease of use Using Jump leads - experts in community engagement	Covid restrictions impacted community engagement Community engagement itself is time and resource consuming	More revision Employ consultants for expert work on marketing and community engagement
Governance	Good representation in governance bodies (3) Practical guide to establish governance of CPH (2) Collaborative governance Appropriate and transparent leadership Adequate processes Knowledge sharing Building networks amongst members of governance bodies	Too much work for volunteers / over-reliance on staff (2) Short time frame meant RAG meetings were communications informing RAG members of progress and did not achieve advisory function Disengagement within the Roundtable Advisory Group due to members' competing priorities Collaborative governance itself was challenging in practice Lack of representation of First Nations peoples Instances of agreements being entered into without PCG approval Little budget oversight	Collaboration takes time Need to engage First Nations peoples better Wider mix of stakeholders Better internal governance processes to ensure fairness and equality Use hublets Get feedback on performance Collaborate more Limit group numbers to those most likely to participate Include budget reporting in governance plan
Quarterly reports	Good for reflection (2) Good to be allowed extensions Good for sharing news and activities that didn't fit into reporting spreadsheet Assessed by regular Governance Group meetings Encourages good record keeping Helps steer program Sharing templates with team to fill in as they went rather than wait to collate at the end Template was easy to use	Unclear reporting requirements (6) Burdensome amount of reporting Hard to get different forms of data from different types of projects with varying degrees of engagement Reporting is designed to only capture certain kinds of activities and misses some data	Simplify reporting and provide better guidance (2) Collect and track data more regularly (2) Check in with groups regularly Improve ongoing tracking done by staff Run a workshop on how to complete reporting requirements Engage SV earlier in the program to determine expectations
Program and project delivery			
Delivery of agreed implementation-ready projects (where applicable)	Successfully delivered projects (3) Led to emissions reductions Using local installers Geographically diverse projects within the region	Supply issues, including items that were meant to be supplied by councils (2) Communication with the community organisation was challenging	Better communication with partner Clearer expectations and close supervision required Start delivering projects early

Component	What worked well	What didn't work well and could be improved	Lessons / opportunities
	<p>Diversity of products, project types and funding</p> <p>Promoted learning</p> <p>Increased awareness of renewable energy</p> <p>Implementation ready projects serve as success story case studies</p> <p>Implementation ready projects boost staff morale</p>	<p>Strained to deliver the project on time due to site-specific issues</p> <p>Covid challenges impacted delivery</p> <p>Poor return on investment in some cases</p>	<p>Have some staff check in with the project after it has been delivered to make sure data collection is done properly and data is being understood</p>
<p>Plan, develop and commission at least 2 community energy projects by June 2022</p>	<p>Some CPHs delivered more than the two expected projects</p> <p>Prioritisation exercise enabled choosing a project</p> <p>Creating networks with local funding bodies</p> <p>Good to have flexibility and be able to deliver smaller wins</p> <p>Energy consultation and literacy workshops assisted in delivery</p>	<p>Program timeline too short (4)</p> <p>Definition of what constituted a 'project' was unclear (4)</p> <p>Supply chain issues due to Covid-19</p> <p>Council bureaucracy caused delays</p> <p>Energy market volatility</p> <p>Too much emphasis on projects takes away from non-project work (e.g., helping establish a community groups)</p> <p>Too much pressure on volunteers</p> <p>Lack of access to capital funds</p> <p>Requirement to generate renewable energy or reduce emissions</p>	<p>Extend project timelines (2)</p> <p>Monitor progress of project centrally from CPH and regularly (2)</p> <p>Allow more flexibility regarding how to use CPH budget</p> <p>Establish networks with funding bodies and seek new funding opportunities</p> <p>Promote project to make them visible to community</p> <p>Reflect more regularly on contract requirements and what projects are allowed</p> <p>Have clearer vision of what those two projects should be from the start</p> <p>More staff specifically dedicated to scoping out projects</p>

Appendix 1 Evaluation framework

Table 10. Evaluation Framework for the Community Power Hubs Program.

Key Evaluation Questions	Sub-questions	Indicators and evidence to consider	Data sources and methods
Appropriateness KEQ 1: To what extent was the CPH Program appropriately designed to achieve its intended objectives?	a) How were community energy opportunities identified and selected? b) To what extent did the program address a clearly identified need? c) To what extent has the program met the needs and expectations of stakeholders involved? d) How appropriate was the program's delivery mechanism to achieve the intended outcomes?	<ul style="list-style-type: none"> evidence used in designing the program Alignment of the CPH Program with other Victorian Government energy priorities and initiatives Stakeholder feedback on program design 	Program documentation Interviews with stakeholders
Delivery KEQ 2: To what extent was the program delivered effectively and efficiently?	a) What activities were delivered and how were they delivered? b) How well did the program adapt to emerging challenges and contexts? c) What were the strengths and limitations of program delivery? d) How well was the program managed? e) To what extent was the program delivered in line with its planned budget, timeline and scope?	<ul style="list-style-type: none"> Comparison of outputs achieved vs. targets comparison of actual budget and delivery milestones to program plans Dollars invested compared to emissions reductions delivered risk management processes are thorough and consider relevant issues Stakeholder satisfaction with program delivery and management Feedback on aspects of project design and delivery that have worked well and not so well, including key examples, explanations and context 	Review of program management and planning documents (e.g. program plan, budget/expenditure records, etc.) Program reporting Interviews with key stakeholders

Key Evaluation Questions	Sub-questions	Indicators and evidence to consider	Data sources and methods
		<ul style="list-style-type: none"> Feedback from staff and other key stakeholders on delivery challenges and responses 	
Outcomes and impacts: KEQ 3: What were the key outcomes and impacts of the program?	a) To what extent has the program achieved its objectives and target outcomes? b) What were the key benefits and outcomes for community members involved? c) Have there been any unintended, additional, or unexpected outcomes as a result of the program?	<ul style="list-style-type: none"> Increased employment opportunities Number of community events held and attendees MW of installed RE capacity of community projects Number of battery kWh installed Number of enquiries to CPHs regarding renewable energy Evidence of reduced GHG emissions Stakeholder insights on key benefits and outcomes Volunteers report increased skills and confidence, engagement and willingness to continue volunteering as a result of CPH 	Program documentation Program reporting Interviews with stakeholders Value quantification tool
Lessons & opportunities: KEQ 4: What are the key lessons and opportunities to inform future program design and delivery?	a) What are the lessons learned to inform future program design and delivery? b) What efficiency gains are possible for delivery? c) How could data collection, monitoring, evaluation and reporting be improved?	<ul style="list-style-type: none"> Insights and feedback from stakeholders on key lessons and priorities Feedback from stakeholders on delivery, and how it could be more efficient 	CPH Pilot evaluation Interviews with stakeholders Identification of lessons by FPC based on all data sources Review of all program documentation and data available

Appendix 2 Assumptions for calculations

A range of energy, cost and GHG savings were estimated for the project. These include:

- Energy savings/production, including renewable energy self-consumed, and energy saved through efficiency measures (per year in kWh) were supplied by CPHs.
- Cost savings were estimated using the ‘Value Quantification Tool’, developed for the pilot CPH program. This effectively estimates savings from reductions in energy use at the rate of 26.36 c/kWh for energy reductions/substituted with renewables (based on Victorian default offer) and 6.7 c/kWh for exported energy (Essential Services Commission Min Flat Rate FIT).
- GHG savings were estimated using renewable generation figures and energy reduction figures at the rate of 0.96 kg CO₂e/kWh (National Greenhouse Accounts Factors, 2021).
- The overall calculation of the ‘value’ produced by the program is based on the ‘Value Quantification Tool’ developed for the pilot, with the following notes:
 - The tool was originally developed as a “simplified social return on investment (SROI) methodology”.²⁵ SV staff updated the tool with contemporary figures relating to energy prices, emission factors etc. (see above).
 - It calculates a total value for the program based on quantified estimates of the:
 - the savings generated by the completed projects (over a 10-year lifespan)
 - the social value of the emission savings (at \$42 per tonne based on the marginal cost of renewable energy from energy retailers)
 - the value of enhanced awareness and knowledge among those who have been engaged by the program
 - the flow on economic impacts to the regions from the program expenditure
 - The tool draws on modelling by DELWP of the “estimates of the economic impacts of the project expenditure associated with the expansion of the program over 2021 – 2022, specifically the associated output and employment effects on the local economies within the hub regions”. This analysis uses REMPLAN modelling, which is based on regional input-output tables relating to the relevant industries.
 - Detailed economic analysis was not in-scope for this evaluation. Thus, while FPC has done a high-level review of the appropriateness of the assumptions underpinning the ‘Value Quantification Tool’, the analysis have largely been taken as a given. The exceptions are:
 - Exclusion of volunteer/in-kind labour, community funding, grants and other loans, which were all counted as benefits in the original analysis. While they are important to report on as part of the program’s leveraging of inputs, they are not ‘social benefits’ themselves (rather, they are costs).
 - Only taking the ‘added value’ component of the flow-on economic impact analysis. The original analysis allocated the full assessment of economic output, which creates issues with double-counting and ignores opportunities costs.²⁶

²⁵ Community Power Hubs pilot program – Final evaluation, p. 14

²⁶ Handbook of cost-benefit analysis. Department of Finance and Administration. 2006

Appendix 3 Additional evidence

Table 11. Summary of each CPH adapted from information in their final reports.

CPH	Summary of delivery
Gippsland CPH	<p>The Gippsland Community Power Hub (GCPH) formed a Governance Group containing the three Project Partners and key stakeholders representing the three defined regions (or hublets). The members were representatives of the Neighbourhood House Network, Isolated communities, DELWP and other sustainable energy groups. This group employed a Project Coordinator, two Project Officers, three Engagement staff and a Communications Officer.</p> <p>The GCPH were successful in implementing 8 “Implementation Ready” projects provided support for an additional 6 projects.</p>
Barwon South West CPH	<p>Staff were onboarded throughout September 2021, with full capacity of the team achieved from October. Engagement and planning with regional CE groups was conducted from October – December, canvassing and prioritising project proposals with the assistance of the Roundtable Advisory Group (RAG), established early on to provide project oversight and guidance.</p> <p>From a broad range of project proposals, numerous key focus areas emerged as both impactful and deliverable in the timeframe. These were Education & Awareness, Residential Energy Efficiency and Behind the Meter Solar. These categories were further refined into specific deliverable projects prioritising social equity, emissions impact and a reduction in energy costs for community groups.</p> <p>Three important feasibility studies were also undertaken as a powerful way of progressing the energy transition in key communities - a Community Battery Study for Queenscliff, an Energy Autonomy Plan for Apollo Bay and a Community Retailer Study for the Barwon South West region.</p>
Grampians CPH	<p>The CPH engaged with 11 Shires in the region, as well as 50+ community energy groups. The communities that stood out for their renewable energy champions were: Daylesford, where the Hepburn Shire's ZNet Plan has lifted the level of community awareness, Natimuk, St Arnaud, Pomonal, Halls Gap and Ballan.</p> <p>The 46 projects covered a wide range of types and capacities: from low-complexity feasibility studies for simple rooftop solar installations for local not-for-profit organisations, to contracting expert facilitator discussions on governance for a community-solar farm, to scoping the needs/possibilities of a regional community energy group wanting to establish a renewables power hub, to first stage feasibility studies and expert-facilitated community engagement sessions for community battery trials, under the Central Victorian Greenhouse Alliance's (CVGA) Community Sparks program.</p> <p>While the Grampians CPH did not apply for implementation funding, the pipeline of 46 projects includes 6 that are implemented or about to be implemented and another 4 that are likely to be implemented in the near future.</p>

<p>Hume CPH (HCPH)</p>	<p>The Hume Community Power Hub (HCPH) was jointly delivered by Indigo Power and GV Community Energy. The HCPH’s objectives were built on the already existing community energy sector in the region, culminating in the Community Energy Network (CEN), consisting of 16 Hume-based groups and nine groups from outside the region. Establishment of a Working Group and Project Control Group formulated the governance arrangements.</p> <p>The three sub-programs with the HCPH included Strengthening the Network and the Renewable Energy Readiness Fund (overseen by Indigo Power), and Solar for Good (overseen by GV Community Energy). Strengthening the Network and the Renewable Energy Readiness Fund (RERF) aimed to build capacity within the CEN, and to in turn fortify the ability of community energy group members to generate renewable energy projects. Solar for Good provided solar designs for community-based buildings and assisted in implementation.</p> <p>The CPH has been instrumental in directly promoting the installation of solar systems through the Solar for Good program, which reached many community entities including Beyond Housing (Seymour) and Merriwa Industries (Wangaratta).</p> <p>While most deliverables didn’t take shape until the start of 2022, leaving just a few months to complete objectives, 21 engagement events were held or supported by the HCPH, the concept of community energy was better embedded throughout the region, and the CEN grew, with two new groups from the Hume region joining. Two solar projects were delivered or scheduled for delivery through the Solar for Good program, with a further four likely to be delivered over the coming months. RERF projects delivered outcomes in a range of areas, including community events that built local support for renewable energy, through to the delivery of energy efficiency training, building online engagement tools for community energy groups, and feasibility studies on energy efficiency programs.</p>
<p>Loddon Mallee</p>	<p>The Loddon Mallee CPH built off the work that was completed previously as the Bendigo Community Power Hub in the Pilot.</p> <p>38 sites now either have completed rooftop solar installations of varying sizes or are under construction. This contributes to a significant reduction in greenhouse gas emissions. On top of the many projects already completed or in progress, there are many still in the pipeline that will be finished in the next few months.</p> <p>The CPH attended or facilitated multiple information sessions. These events meant they could reach more people from more community organisations and spread the message about renewable energy, often leading to one-on-one meetings to discuss things further. They also shared a survey via email and social media as another way for people to get in touch with the Hub.</p>
<p>Yarra Valley CPH</p>	<p>This Hub focussed its efforts on three domains which could be brought to implementation: education and capacity building both of CEGs and community members, home efficiency evaluation and upgrades and four community offer bulk-buy schemes (though the last of these could not start before</p>

	contract-end).
Metro CPH (MCPH)	<p>The Lead Partner for the Metro Community Power Hub was the Yarra Energy Foundation (YEF), who brought a reputation and expertise in community engagement, energy advice, bulk-buy program coordination and community batteries. Hub achievements included:</p> <p>The MCPH Home Energy Efficiency Program that delivered over 100 energy consultations to support residents considering solar, energy efficient upgrades, sustainable building design, and better understanding their home energy use.</p> <p>The MCPH Solar Program led to the installation of over 175kW of renewable energy generation capacity, yielding approximately 236,943kWh of renewable energy generated each year, and over \$372,043 invested in solar</p> <p>Three feasibility studies for community batteries in different locations across the Melbourne region. The development of these studies supports ongoing community engagement activities and capacity-building with community groups to better understand ownership and commercial models, technical requirements, and funding opportunities for community batteries</p> <p>A Guide to Solar for Apartments</p> <p>A series of energy literacy and energy efficiency workshops and presentations for various audiences, including train-the-trainer sessions for educators, social workers, and community members; and in-person and online presentations for residents across metropolitan Melbourne</p>

Table 12. List of capital works install projects completed through the Program.

Region	Project	kW PV panels	Regional totals kW PV panels installed	Battery install (kWh)
Barwon South-West	Apollo Bay Mechanics Hall	5.4		
	Point Lonsdale Bowls Club	25.4		
	Anglesea Art House	7.8		
	Torquay Tigers Clubroom	26.6		
	Geelong YMCA Community rooftop solar	60.3	125.5	
Gippsland	Coronet Bay Community Hall rooftop solar	11.8		
	Heyfield Wetlands Information Centre rooftop solar	13.3		
	Carrajung South Hall rooftop solar project	5.5		
	Bass Coast Adult Education Centre Solar	14.2		
	Sale Neighbourhood House rooftop solar	8.6		
	Tamboon Community Bushfire Defence and Response Facility solar & battery	4.3		12

	Mallacoota WWII Bunker Museum power supply solar	20.0		
	Gormandale Community House rooftop solar	5.2		
	Uniting Church Yarragon rooftop solar	6.7		
	Mallacoota Water treatment plant ground mounted solar array	29.0		
	Neerim South Hospital rooftop solar	99.8		
	Lucknow Football Netball Club solar & battery	14.0		42
	Renewable Energy Trailer	3.5		
	Venus Bay Community Centre Resilience solar & battery	9.9	245.8	26.4
Grampians	Trentham Golf Club battery			27
	Daylesford Dharma School solar	25.5		
	McCallum Disability rooftop solar	6.6		
	Hepburn Shire-DOXA Malmsbury Camp solar	11.7		
	Daylesford Historical Society solar	10.5	54.3	
Hume	Yea Community Shed: Pottery Studio and Men's Shed solar	11.0		9.6
	Going Solar on Moyola	146.0		
	Murchison Primary School solar	36.7	193.7	
Loddon Mallee	Bendigo Jockey Club solar	99.8		
	Echuca Neighbourhood House solar	7.8		
	Bendigo Woollen Mills solar	96.3		
	Hazeldenes Laanecoorie solar	99.9		
	Hazeldenes – Bald Hills 3 solar	99.9		
	Swan Hill Neighbourhood House solar	16.4		
	Access Australia solar	50.9		
	Annie North solar	48.0		
	Solar on 15 low income homes	55.5		
	Lockington solar (8 independent living units)	52.8		
	Quarry Hill Golf Club solar	10.14		
	Rushworth Community House solar	5.0		
	Kyabram low income home	3.7		
	Red Cliffs Church of Christ	13.4	659.5	
Melbourne	Electrify Melbourne Solar	175.0	175.0	
Total			1453.8	118