

COMMUNITY ENGAGEMENT

Gathering community's
interests, knowledge,
concerns and understandings
of Community Batteries



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We would like to acknowledge the traditional custodians of the lands on which this survey was conducted, the Wadawurrung people and pay our respect to elders past, present and future. Geelong Sustainability is committed to actively working towards reconciliation.



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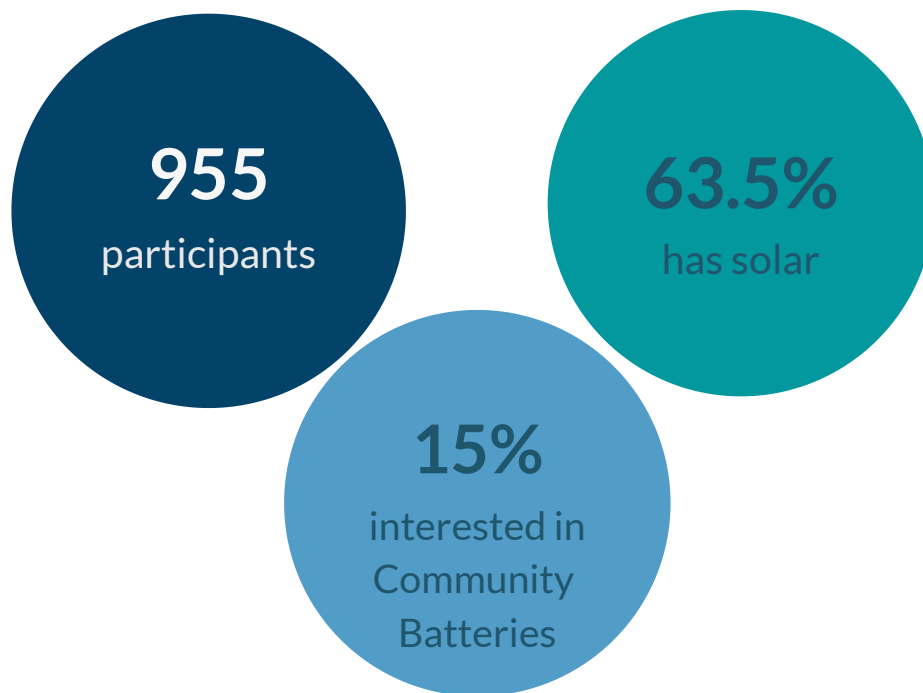
Community Battery Survey

Geelong Sustainability conducted a Community Battery survey with City of Greater Geelong residents to gather feedback about the community's interests, concerns and understanding of Community Batteries.

Community Batteries, which are also sometimes referred to as 'Neighbourhood Batteries', is a type of battery storage for energy. These batteries are bigger than a home battery and can help to power a small neighbourhood. Community Batteries are typically utilised by a range of residents and are located away from your home or property.

This online survey was live from 17th June until 13th July 2022 and was shared through various advertising mediums as well as the survey being available on Geelong Sustainability's website. Our online survey was filled out by 955 participants, with 746 completing the entire survey, giving us great insight into the community's feelings and thoughts in regards to Community Batteries. **

Survey Highlights



- 63.5% of the 955 have rooftop solar, with 13.0% participants having plans to install.
- 92.4% of the participants export excess solar energy to the grid and get credit on their electricity bill.
- 10.9% of participants have battery storage at their property, 6.0% plan to install within the next 12 months and 10.6% have it planned after a 12 month period.

****Disclaimer of potential influenced results:**

We are aware that people who filled out this survey were more likely to already be part of our community and networks which is predominantly composed of people who are interested in sustainability and renewable energy, therefore potentially skewing the data. We attempted to address this by broadening our catchment of this survey to reach a wider audience through Facebook advertising and sharing on various mediums outside of our immediate community. Despite this effort we are aware that these results may be influenced by the community of our networks and emailing list.

Aim of Community Engagement Survey

The Community Battery Survey was conducted as part of a broader Community Battery feasibility study that Geelong Sustainability was running funded by Department of Environment, Land, Water and Planning (DEWLP)

Geelong Sustainability sought insights from the community on Community Batteries to:

- Better understand the community's expectations.
- Deepen our knowledge of what drives the community's interest and the barriers they experience.
- Identify the gaps in information and education.
- Understand the concerns participants have about Community Batteries.
- Gather information on the willingness of the community to make changes in order to participate in a Community Battery.



Snapshot of the Survey

955 started the survey

746 completed the entire survey

63.5% with solar panels

10.9% with private battery

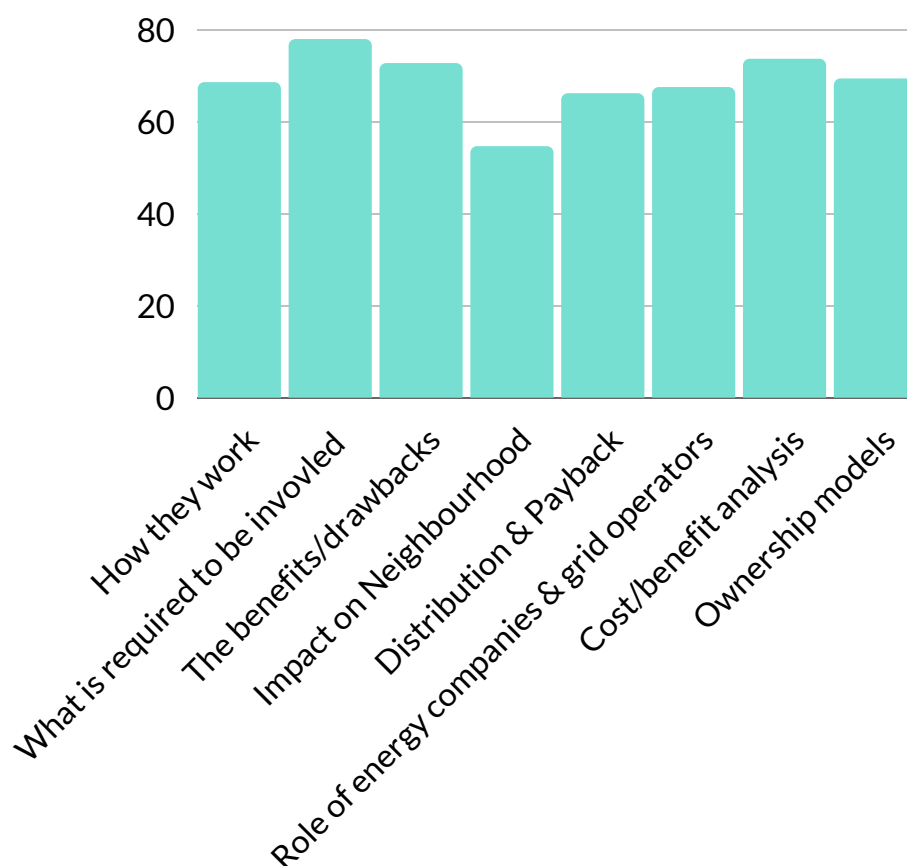
Key points of the survey:

- The leading interest in participating in a Community Battery is 'More affordable access to batteries'.
- 'Accelerate the regions transition to net zero emissions' and 'Sharing of local renewable energy generation' came out as the main expectations of Community Batteries.
- Participants rated 'Safety' as their biggest concern for having a Community Battery in their local area.
- Main barrier for participants accessing batteries is 'Cost and affordability'.
- 77.9% of participants indicated they would be willing to pay a daily fee to access a Community Battery.
- 'What is required to be involved' was what the community wanted more information and education on the most.

Education & Understanding of Community Batteries

We asked the community how they would rate their understanding/knowledge of Community Batteries, and the responses helped us identify there is a gap in education around Community Batteries. This was apparent in the 72.4% of the participants rating themselves as having 'Very little knowledge' (35.3%) or 'Somewhat knowledge' (37.1%) about Community Batteries and only 5.1% rating themselves as having 'A lot of knowledge' (3.5%) or 'Extensive knowledge' (1.6%). Overall the community reflected that they require more information and education in an array of areas. Below indicates the areas in which they wish to gain more information, with the stand outs being 'What is required to be involved' (77.9%), with 'Cost/benefit analysis' (73.6%) and 'The benefits/drawbacks' (72.7%) also rating highly for participants.

What information/education do you want to receive in regards to Community Batteries?



How they work (68.5%), Cost/benefit analysis (73.59%), What is required to be involved (77.88%), The benefits/drawbacks (72.65%), Impact on neighbourhood: noise, location, installation time (54.56%), Ownership models (69.3%), Distribution and payback (66.09%), The role of energy companies & grid operators (67.43%) Other (7.24%)

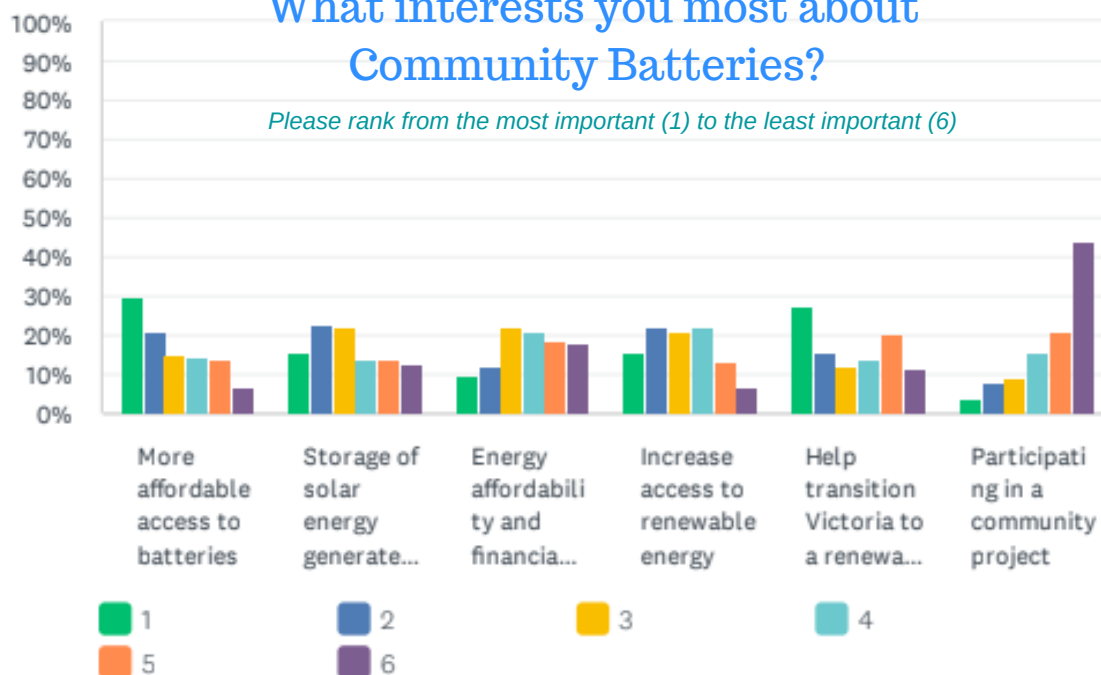
Interest & Drivers

On a weighted average 'More affordable access to batteries' (4.17) was the leading driver in the community's interest in Community Batteries. The survey results also found that 'Increased access to renewable energy' (3.83) and 'Helping transition Victoria to a renewable energy future' (3.81) ranked fairly close together as second and third leading interests from the community, indicating that a large part of the participants' interest in Community Batteries is linked to renewable energy and our energy future. The weighted average of interests showed that there is a diversity of reasons that people are interested in Community Batteries, however 'Participating in a community project' rated lowest on the drivers.

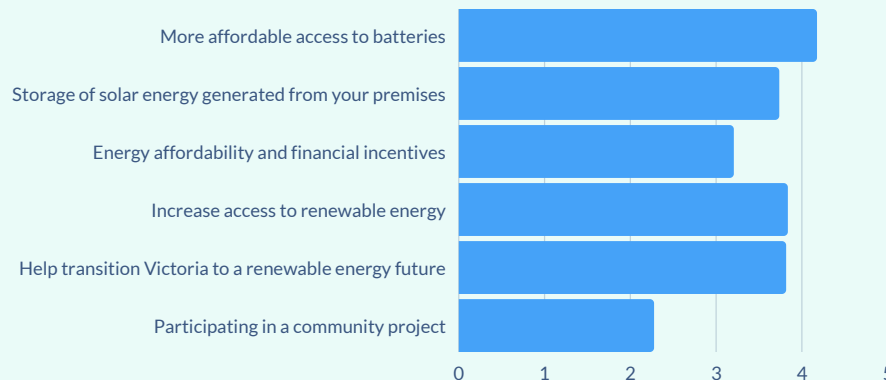
MORE AFFORDABLE ACCESS TO BATTERIES

What interests you most about Community Batteries?

Please rank from the most important (1) to the least important (6)

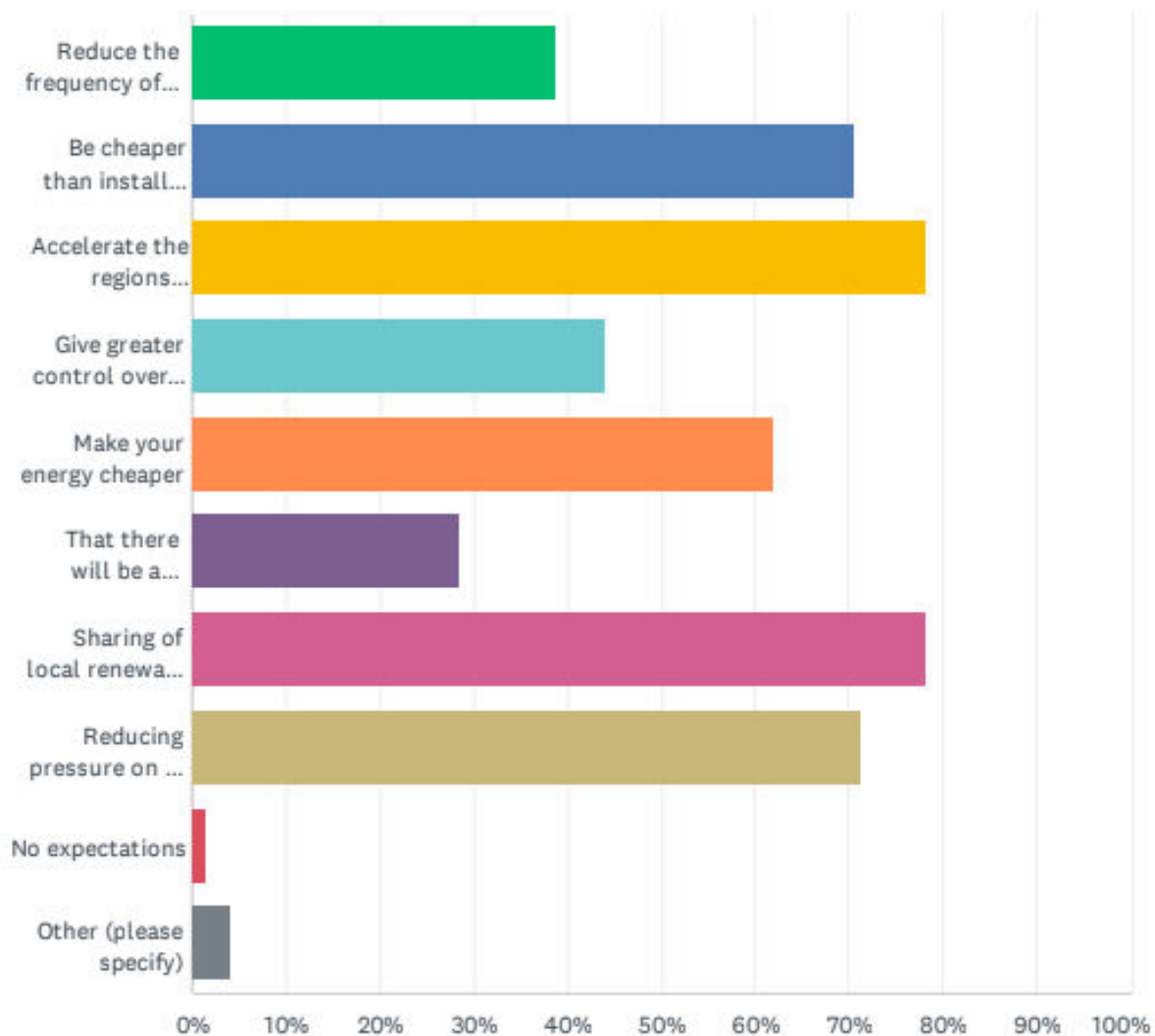


Weighted average



Community Expectations

What are your expectations of being a part of a Community Battery?



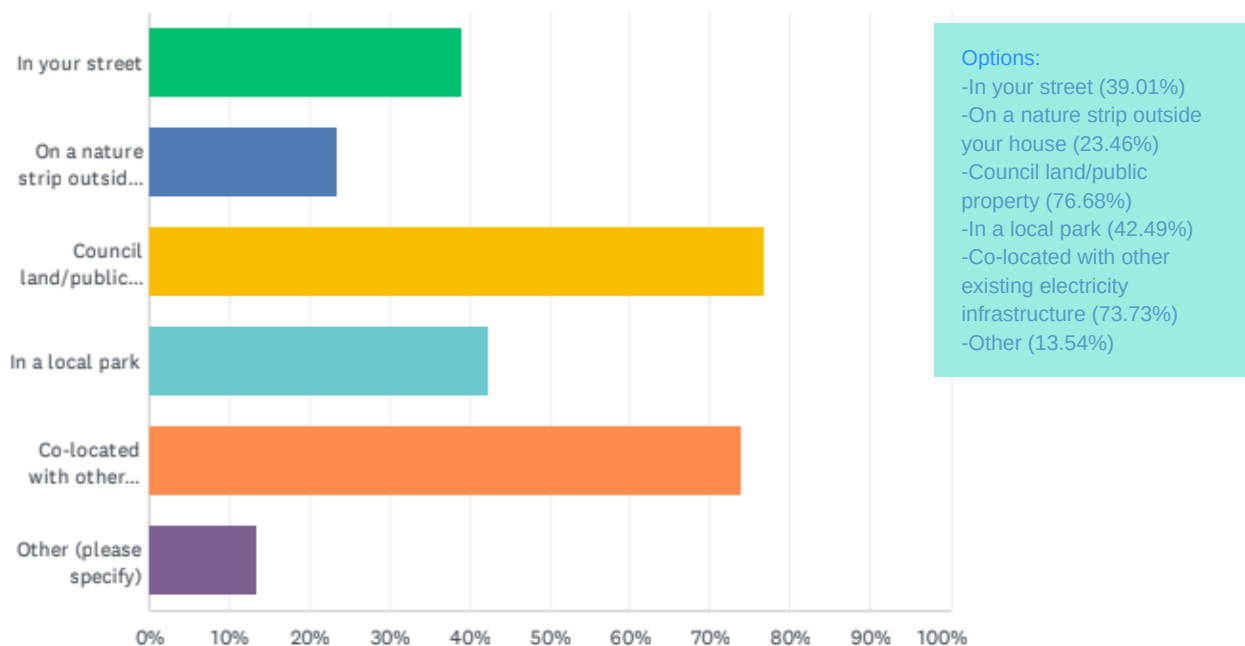
- Reduce the frequency of blackouts
- Be cheaper than installing a home battery
- Accelerate the regions transition to net zero emissions
- Give greater control over your energy
- Make your energy cheaper
- That there will be a charge to access the battery system
- Sharing of local renewable energy generation
- Reducing pressure on the electricity grid
- No expectations
- Other

We wanted to gather an understanding of the expectations the community has in regards to Community Batteries and to see where the expectations match or do not match the current reality of Community Batteries. 'Accelerate the region's transition to net zero emissions' and 'Sharing of local renewable energy generation' received the most votes when asked what participants' expectations of a Community Battery were, both rating at 78.8%. These two being highly ranked appears to indicate that the community views Community Batteries as a key part of our energy future and in moving forwards zero emissions. 'Reducing pressure on the electricity grid' (71.3%) and 'Be cheaper than installing a home battery' (70.6%) followed closely behind, reflecting a theme of cost and affordability coming up again around Community Batteries.



Image of the community battery installed as part of a W.A. trial.

Battery Location



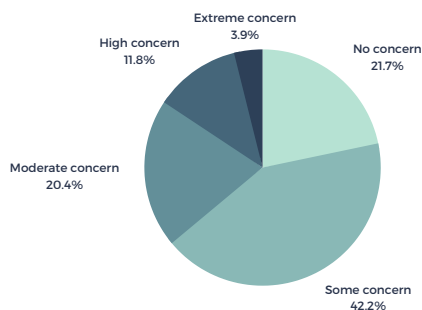
Where would you consider an appropriate location for a Community Battery?

Location is a key topic raised when talking about Community Batteries, so we wanted to explore where the community might accept as appropriate locations. The feedback was varied with two stand outs of locations deemed appropriate or acceptable by the community. These were 'Council land/public property' (76.7%) and 'Co-located with other existing electricity infrastructure' (73.7%).

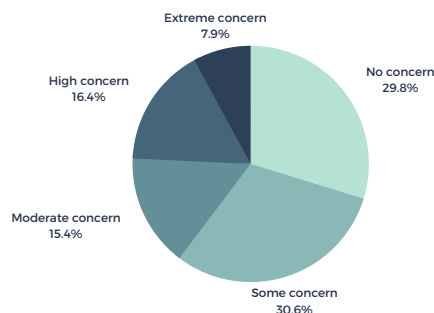
Community's Concerns

Please rank the following concerns when considering a Community Battery in your local area

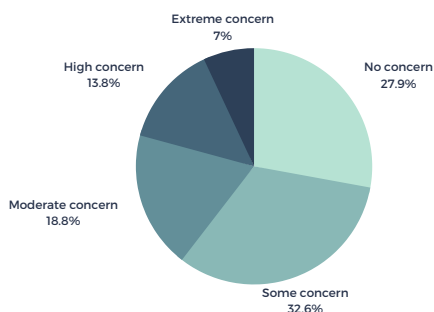
Location/positioning



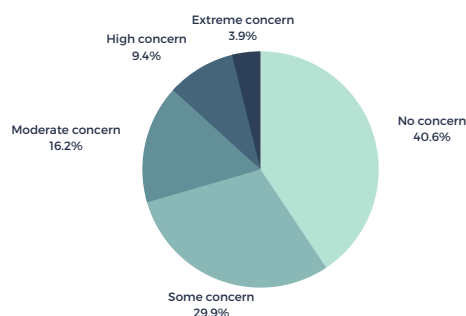
Safety



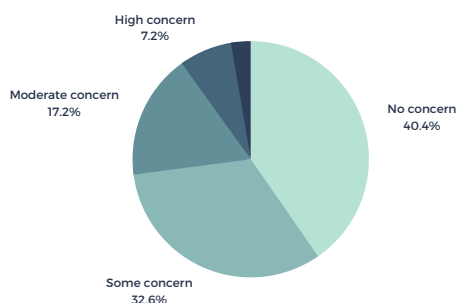
Fire



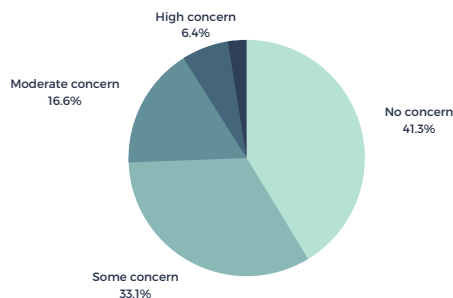
Noise



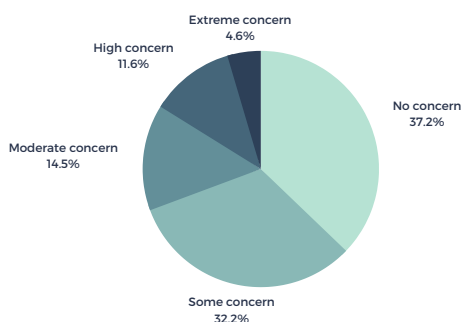
Visual Impact



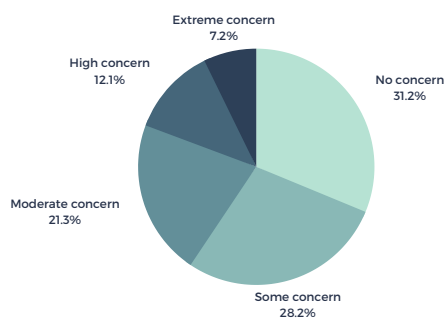
Size and Footprint



Graffiti/tagging



Environmental impact



Participants rated the above sections with the level of concern they have for each one. On a weighted average, 'Safety' was the highest rated concern for the community with a rated average of 2.42, with 'Fire' (2.39), 'Environmental impact of a battery' (2.36) and 'Location/positioning' (2.34) following closely behind.

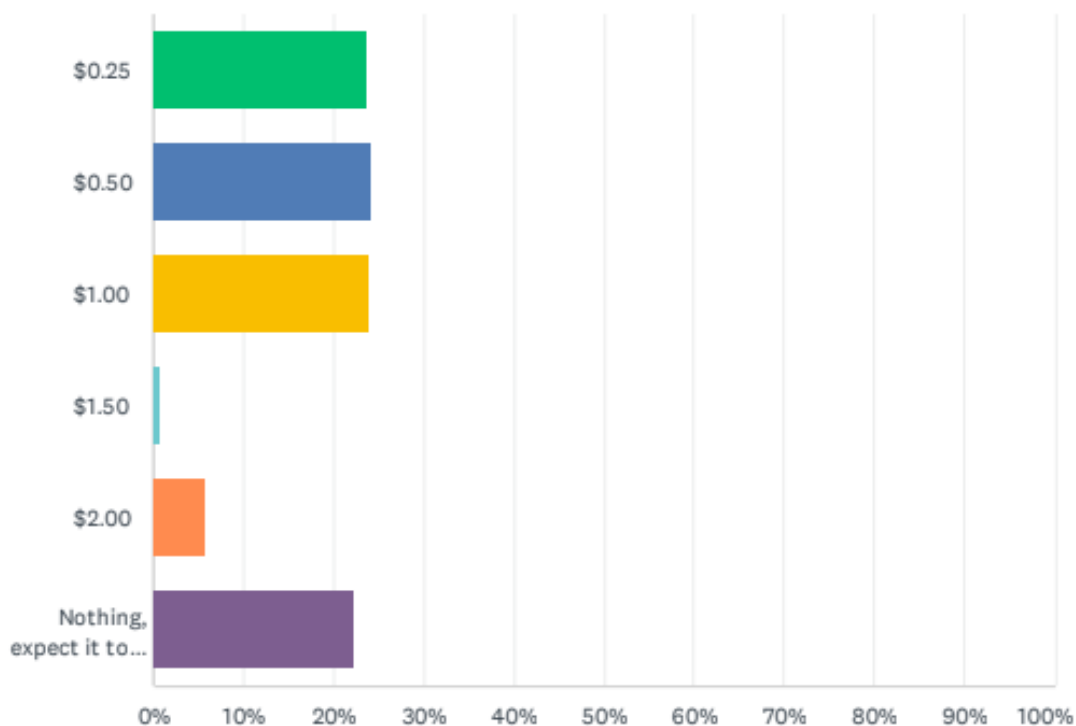
Community Battery Interest

Participants were asked how willing they would be to do the following in order to access a Community Battery:

- 90.3% of participants stated they would be willing to change energy provider.
- 81.4% would be willing to have the battery located on a suburban nature strip adjacent to electricity poles and transformers.
- 78.9% would pay a separate charge on their electricity bill to access the battery.
- 77.9% indicated they would be willing to pay an daily fee to access a Community Battery, with only 22.2% stating they expected it to be free. The majority of the participants (71.6%) stated they would be willing to pay \$1.00/day or under, with \$0.50/day being the most common answer.

Please note this question was asked without the participants having knowledge of how participating in a Community Battery would reduce their electricity bill costs, therefore the data does not necessarily indicate an informed decision but more of a broad stroke of willingness to pay to participate in a battery.

What would you be willing to pay to have access to a Community Battery per day?

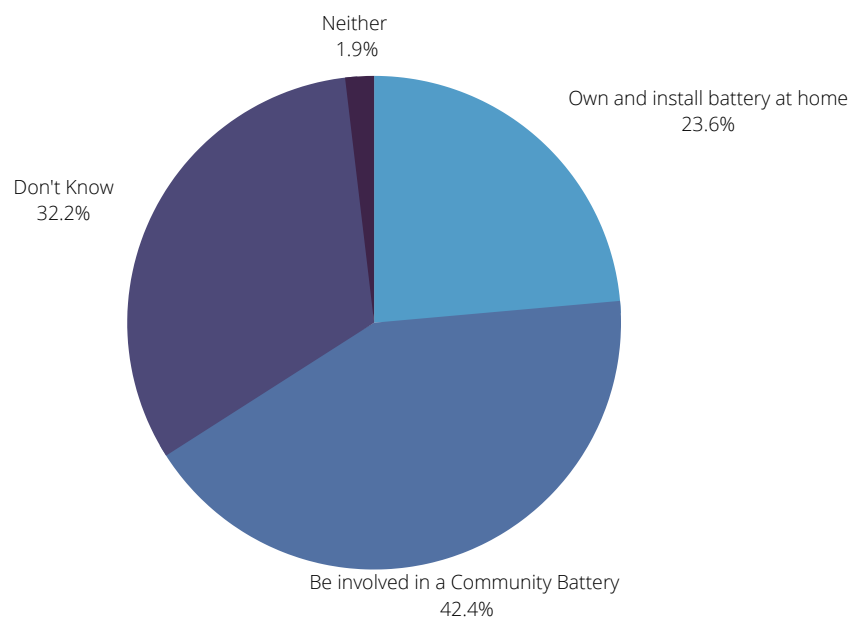


\$0.25 (23.59%), \$0.50 (24.13%), \$1.00 (23.86%), \$1.50 (0.54%), \$2.00 (5.76%), Nothing, except it to be free (22.12%)



Community Battery installed in Fitzroy, image by Brant Kozlovskis, Pixii, LinkedIn

Battery Storage Preference

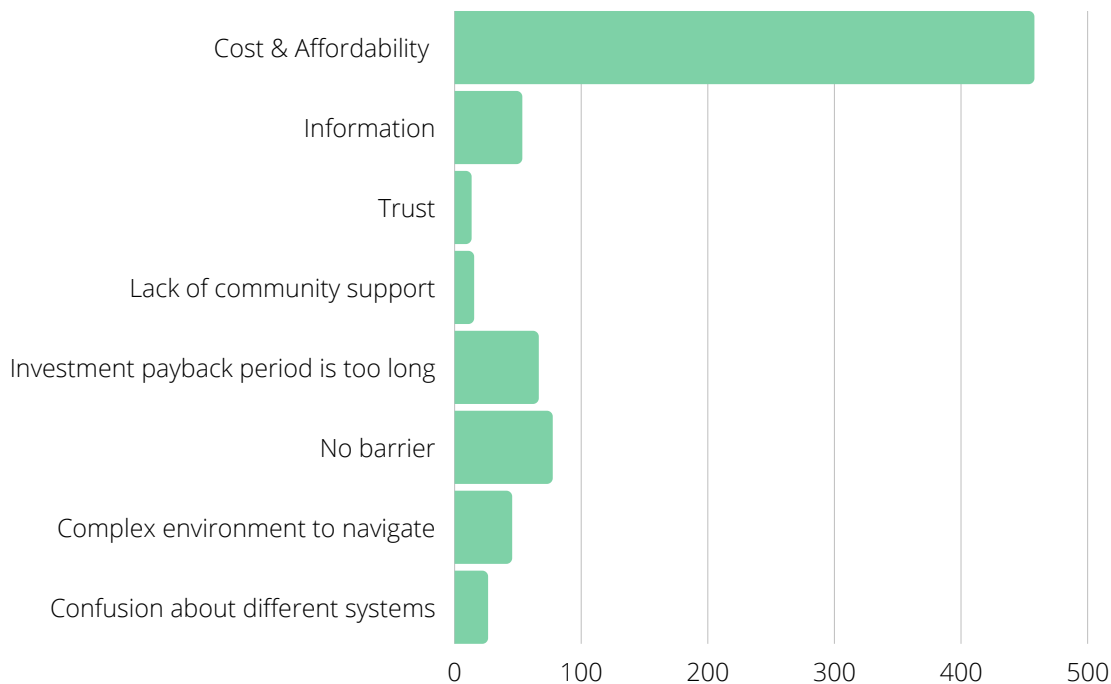


What battery storage would you prefer to be involved in?

We asked in the survey whether the participants would rather be involved in a 'Community battery', 'Installing a home battery', 'Neither', and 'Don't know'. 42.4% answered Community Battery. An interesting part of the responses was that 32.2% chose 'Don't know', potentially indicating that people do not feel that they have enough information to make an informed decision. This question was asked to understand people's interest in battery storage and what they would prefer if offered the choice. We were expecting the answer of 'Community Batteries' to rate highly as the survey was focused on 'Community Batteries', which it did, but it was interesting to see that there were varied preferences.

Barriers

What is the main barrier for you getting access to battery storage?



Snapshot of the Barriers

- 60.8% Cost & Affordability
- 10.2% No Barrier
- 8.8% Investment period too long
- 7% Information



'Cost and Affordability' (61.3%) was the clear leading barrier for participants accessing battery storage which mirrored the same topic coming up in people's interest in Community Batteries. 'Investment period too long' (8.9%) and 'Information' (7.1%) came in second and third as barriers that the community experiences however they rated much lower on the scale.

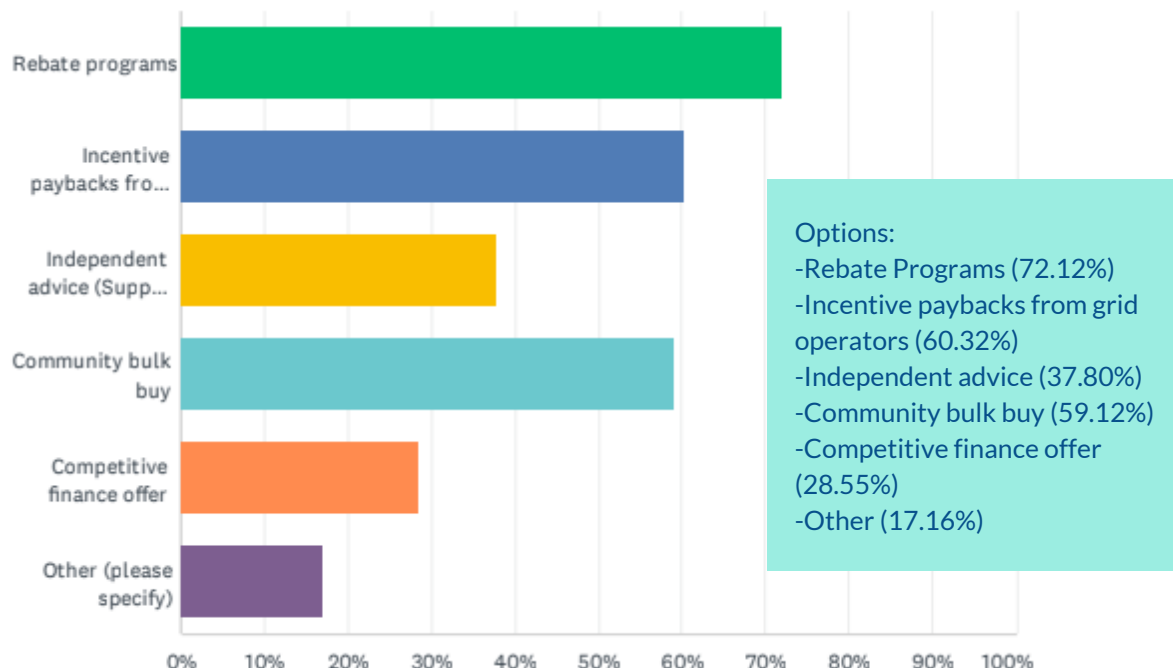
Cost & Affordability (61.26%), Information (7.10%), Trust (1.74%), Complex environment to navigate (6.03%), Confusion about different systems (3.49%), Lack of community support (1.21%), Investment payback period is too long (8.85%), No barrier (10.32%)

Battery at Private Residence

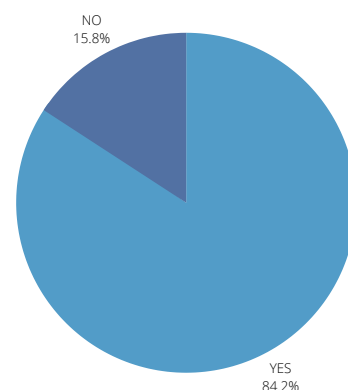
Geelong Sustainability believes behind the meter (BTM) batteries at private residences are also an important part of the energy future, therefore we wanted to use this survey to gather data on this as well. We included a few questions that focused on batteries in private residences to understand what would encourage them to install a battery at their home, and what concerns that would have about a third party having access to their battery.

What would encourage you to install at your home?

As the data from the Community Battery feasibility study has shown that they are not yet financially feasible we wanted to gather information about what would support the community to install a battery at their private residence. Financial support came up again for what would support residents to install a private battery. 72.1% of participants indicated that 'Rebate Programs' would encourage them to install at their homes. 60.3% stated that 'Incentive paybacks from grid operators (Powercor)' would encourage them.



When asked if they did end up getting a battery at their premises would they be comfortable with energy providers or grid operators accessing their battery in high energy times if provided with an incentive 84.18% of them answered yes and 15.82% answered no.

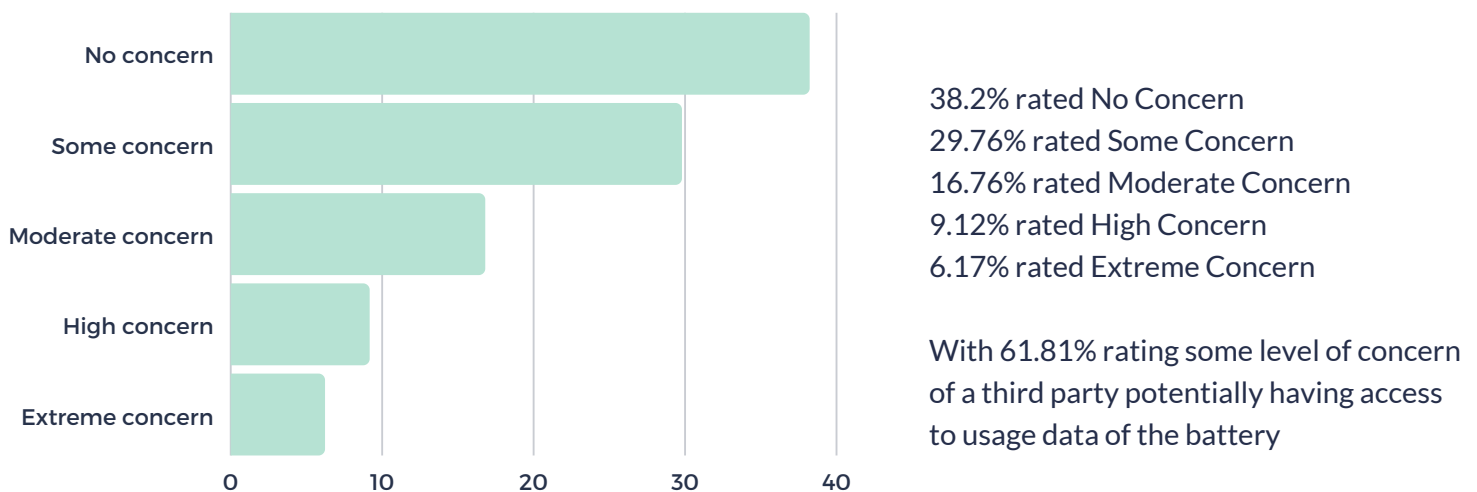


Third party access to battery

We were interested to know whether participants would be comfortable with energy providers or grid operators accessing their home battery in high energy times if they were to install a home battery in the future - particularly if they were provided with an incentive for this access. 84.2% answered yes, with the remainder (15.8%) answering no.

The following four questions asked participants about their level of concern with a third party having access to their home battery. The answers indicated the participants level of concern about a third party having access to their battery (2.15 weighted average) rated lower than growing concern levels when asked about the third party being able to 'charge or discharge the battery when they consider necessary' (2.96), 'it not being clear and convenient when the third party is using the battery' (3.33) and 'the energy available to you in the batteries being impacted by the third party access' (3.40).

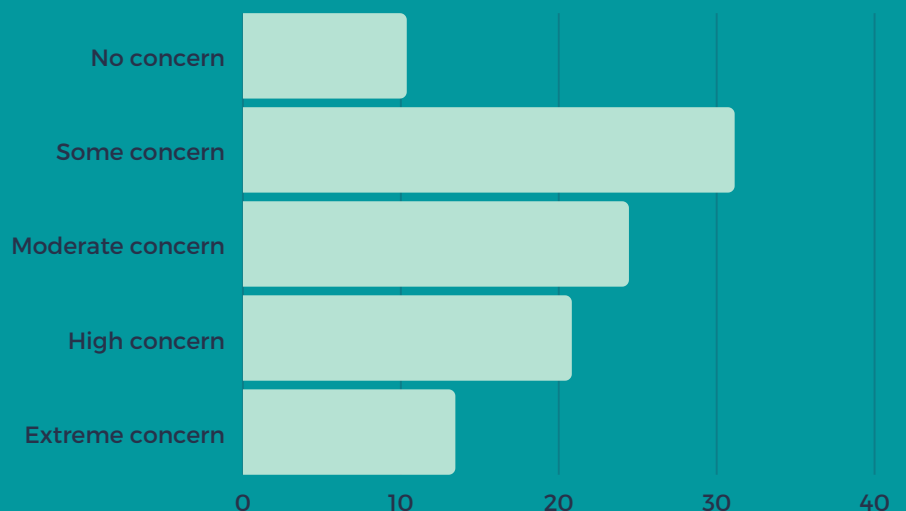
Third party potentially having access to the usage data for the battery



Third party being able to operate the battery, either charge or discharge, as they consider necessary.

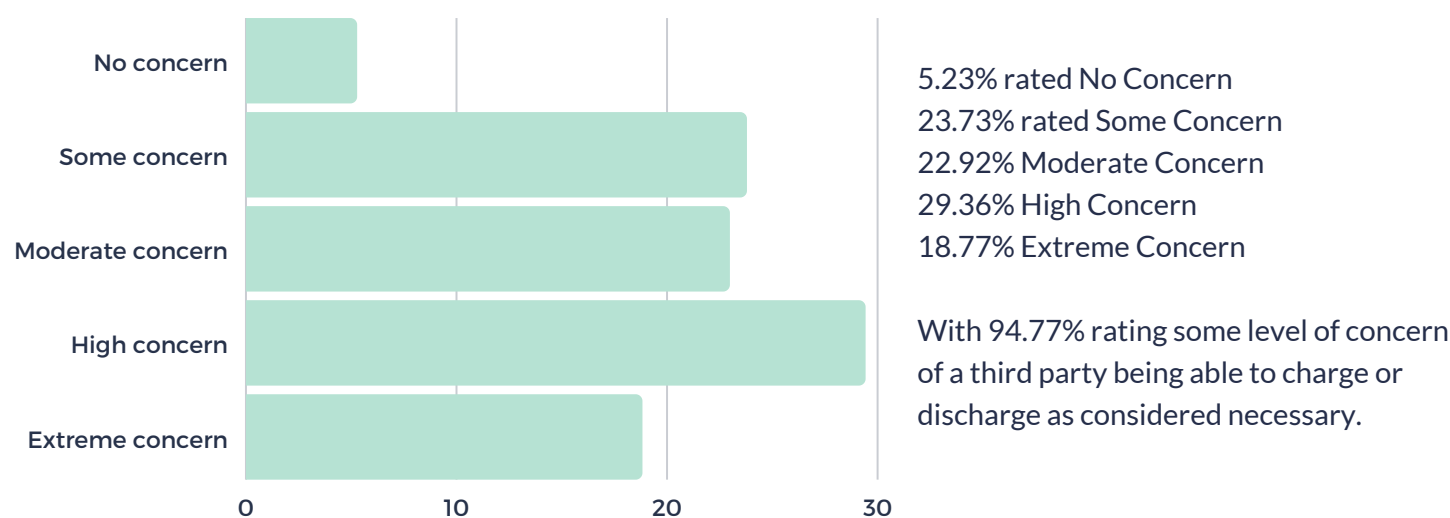
10.32% rated No Concern
31.1% rated Some Concern
24.4% rated Moderate Concern
20.78% rated High Concern
13.4% rated Extreme Concern

With 89.68% rating some level of concern of a third party being able to charge or discharge the battery as they considered necessary.



Third party access to battery

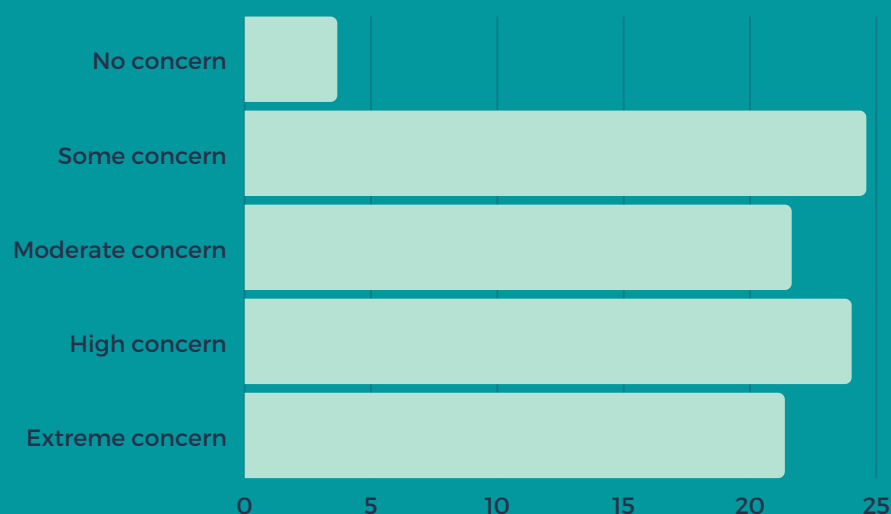
Community concern levels regarding the potential of it not being clear and convenient when the third party is using the battery.



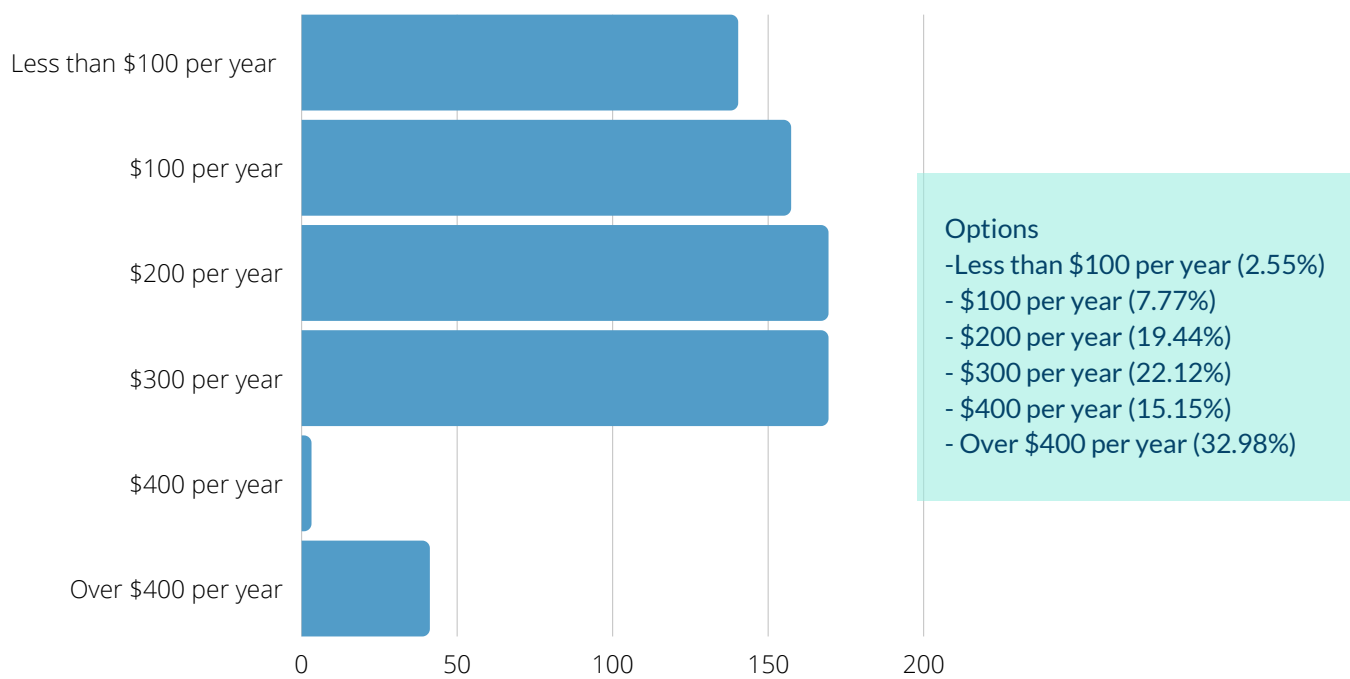
Communities concern levels regarding the energy available to the batteries being impacted by the third party access

3.62% rated No Concern
24.53% rated Some Concern
21.58% Moderate Concern
28.95% High Concern
21.31% Extreme Concern

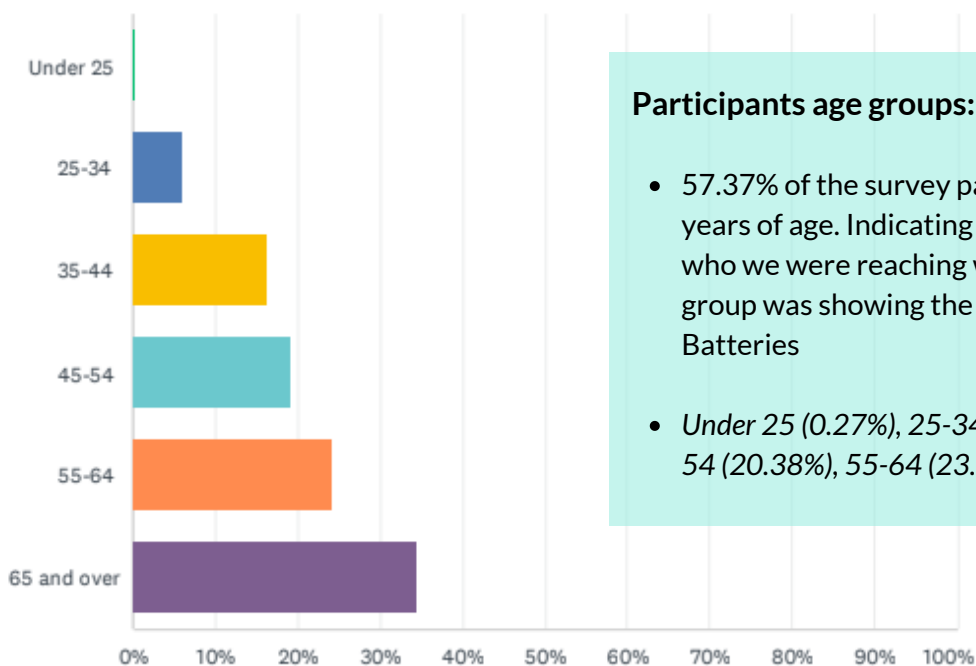
With 96.38% rating some level of concern regarding the energy available to the battery being impacted by the third party access



If a third party, such as a grid operator or energy retailer, had access to a battery at your home, how much do you think is a reasonable financial incentive per year?



Demographics of participants

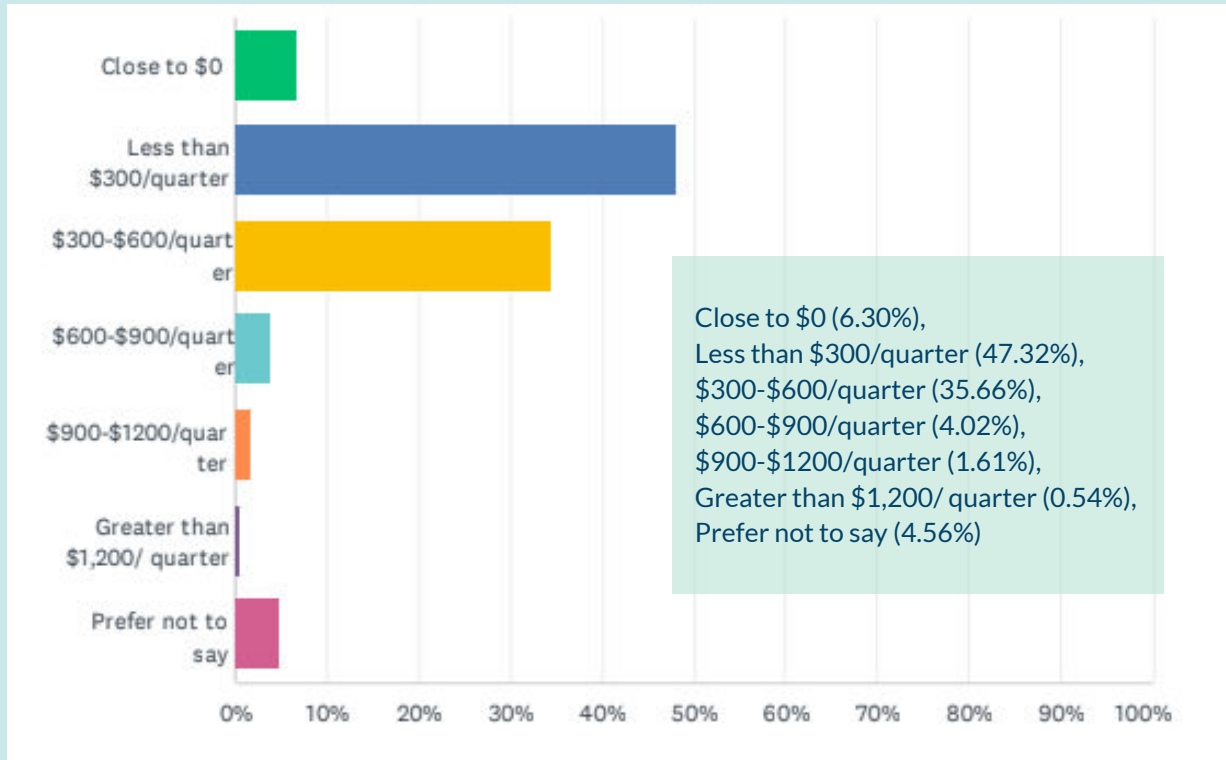


Participants age groups:

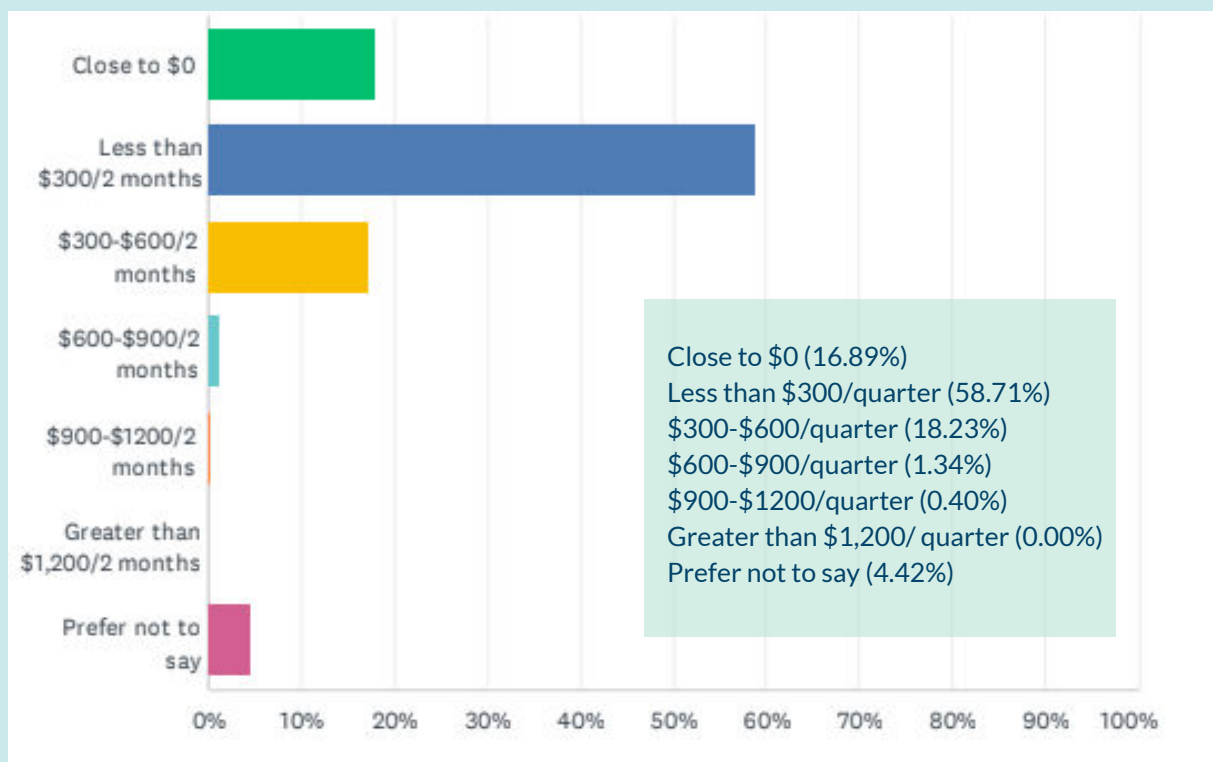
- 57.37% of the survey participants were over 55 years of age. Indicating either that was the age group who we were reaching with the survey or that age group was showing the most interest in Community Batteries
- Under 25 (0.27%), 25-34 (5.90%), 35-44 (16.09%), 45-54 (20.38%), 55-64 (23.86%), 65- Over (33.51%)

Demographics of participants

Quarterly electricity bill:



Bi-monthly Gas Bill:





We thank everyone who took the time out to complete this survey and give us feedback. We are grateful for this amazing community we have in the City of Greater Geelong.

Contact

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