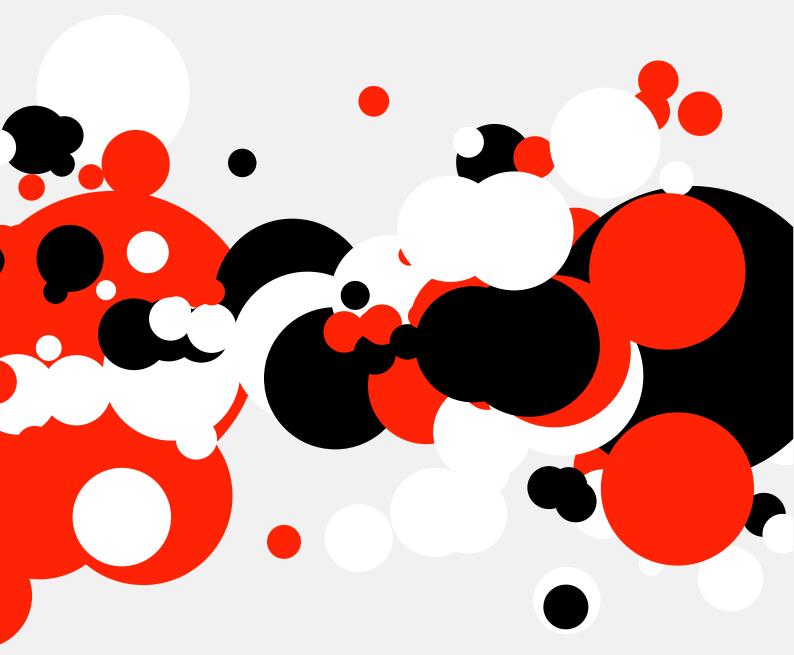


Social Access Solar Gardens: Market Research Phase 2 Report

Final - November 2018

Institute for Sustainable Futures



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About the authors

The Institute for Sustainable Futures (ISF) is an interdisciplinary research and consulting organisation at the University of Technology Sydney setting global benchmarks since 1997 in helping governments, organisations, businesses and communities achieve change towards sustainable futures. We utilise a unique combination of skills and perspectives to offer long term sustainable solutions that protect and enhance the environment, human wellbeing and social equity.

For further information visit: www.isf.uts.edu.au

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Disclaimer

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Executive Summary

The Solar Gardens Project is led by the Institute for Sustainable Futures (ISF), University of Technology Sydney and Community Power Agency, and funded by the Australian Renewable Energy Agency (ARENA) and NSW Government. It is developing the business models for the first solar gardens in Australia in locations across Victoria, New South Wales and Queensland.

This report summarises the approach and results of the second phase of market research for the Social Access Solar Gardens project. The second phase of the market research was more limited in scope than the first phase, with the aim of assisting teams to refine their messaging. The four project teams produced a mock product, for example a brochure, flyer or mock bill, which the market research set out to test with a target audience selected by the team. The messaging was tested via Facebook campaigns, by comparing the response to different versions of the mock products.

The table summarises the overall response rate to the different messages, characterised as community, blended financial/ environmental, financial, and environmental. Most of the response rates fell within the average for Australian not-for-profits of 3-5% response rate to Facebook campaigns.

Summary – response rate from different framing

Ads	Shoalhaven (general)	Swan Hill (renters)	Swan Hill (business)	Blacktown (general)	Enova (general)
Community/ renter message	3.2%	4.8%	n/a	1.1%	0.32%
Financial/ environmental blended message	4.2%	4.0%	n/a	n/a	0.47%
Financial message	n/a	n/a	5.2%	0.9%	n/a
Environmental message	n/a	n/a	4.1%	0.6%	n/a

The results for the alternative framing were not clearcut, as shown in Table 6. The community framing in Swan Hill performed better than the financial/environmental blend, and the community messaging was also the best performer in Blacktown, although the gap was not so large. In Shoalhaven and Byron Bay/ Enova the financial/environmental blend outperformed the community message, and among the business audience in Swan Hill the financial message performed better than the environmental (the community message was not tested with this audience, nor was a financial/environmental blend).

Across all five campaigns the ads with the community framing were similarly successful to the ads with the financial/ environmental message, although in the Phase 1 research the financial message came out as a winner, closely followed by social inclusivity message.

It can be concluded that the social inclusion and financial message have the most appeal to the target audience.

The lessons from the Phase 1 market research remain relevant to future attempts to market Solar Gardens. Additional lessons evident from Phase 2 include:

- The important role played by image choice in capturing attention, with Swan Hill's images of solar panels and people being the most successful
- Further evidence that a local, recognised organisation is the best choice to market the solar garden
- The importance of ensuring that a Facebook ad does not ask too much of the viewer. There is
 less commitment needed to click to "learn more" than there is to click to "sign up to attend an
 event". It may be better to use Facebook to capture attention and leave the main 'ask' for the
 linked website.

The value of having teams tailor ads for their audience, and test in their context, rather than only relying on large-scale market research. It is relatively easy to test alternative messages on Facebook, and see which gets the better responses; this information can then be used to tailor information which is going to be used in other channels.

8 November 2018



Contents

EX	ecutiv	ve Summary	3
Со	ntent	s	4
Glo	ossar	у	5
1	В	ackground	6
2	N	lethodology	6
	2.1	Defining a Solar Gardens Prototype Mock Product	7
	2.2	Why use Facebook?	7
	2.3	Facebook testing process	8
3	F	acebook testing results	15
	3.1	Blacktown team	15
	3.2	Swan Hill team	16
	3.3	Shoalhaven – Repower Shoalhaven	17
	3.4	Enova	18
4	D	iscussion and summary	18
Ар	pend	ix 1	21
Ар	pend	ix 2	22
Fiç	gure	s	
Fig	ure 1	: Blacktown team: three versions of the one advertisement	Ş
_		: Registration page of Blacktown Facebook campaign	g
_		: Swan Hill team – two versions of each ad for two campaigns	10
_		Registration page of Swan Hill's Facebook campaign	11
_		: Shoalhaven team - two advertisement versions	12
Fig	ure 6	: Registration page of Repower Shoalhaven's Facebook campaign	12
Та	bles		
Tab	ole 1:	Results of Blacktown/ Pingala's Facebook campaign	15
Tab	ole 2:	Results of Swan Hill's Facebook campaigns	16
		Results of Repower Shoalhaven's Facebook campaign	17
		Results of Enova's Facebook campaign	18
		Summary – overall performance of the teams Facebook campaigns	19
Tak	ole 6:	Summary – performance of different framing	19



Glossary

Click rate	The click rate referres to the number people clicking on the ad and being ultimately transferred to the organisation's website. Link clicks are one way to measure the interest that the ad generates among the target audience.
Conversion rate	Conversions are customer-completed actions. The conversation rate is the ultimate measure of the impact of the advertisement or campaign. In this report the conversation rate is determined by the click rate in relation to the number of completed online forms. For example if the ad has received 100 clicks and 2 online forms were completed, then the conversion rate is 2%.
Cost per result	This metrics refers to the average cost per result from the ads. Cost per result indicates how cost-efficiently the objectives of the ad campaign has been achieved. It can be use to compare performance among different campaigns and identify areas of opportunity. The metric is calculated as the total amount spent, divided by the number of results.
Frequency	The average number of times that each person saw your ad.
Impressions	The number of times that your adverts were on-screen. Impressions measure how often the ads were on screen for the target audience. Example: If an ad is on screen for someone 2 different times in a day, that counts as 2 impressions.
Mock product	A mock product is any means to promote the team's Solar Gardens offer; teams considered their target group and distribution channels in order to determine the type. Depending on the product, different amounts of content were appropriate which are listed in Appendix 2.
Reach	The reach provides a measure on how many people were exposed to the ads and is different to impression (see above). If the same person sees the same content two or more times, the reach would remain at one This metric is estimated by Facebook using modelling.
Relevance score	Your relevance score estimates how well your ad is resonating with the people you want to reach. The higher your ad's relevance score, the better it's considered to be performing. When your ad's relevance score is high, it's more likely than other ads to be shown to your target audience.
Traffic	Traffic is the number of people visiting your website or app. When setting Traffic as the objective in a Facebook advertising campaign, the user can create ads that either: Send people to a destination on or off Facebook (Website Clicks), or Increase the number of people going to your mobile or desktop app (App Engagement).

8 November 2018



1 Background

Solar Gardens are a new concept which seeks to enable access to solar PV to people currently locked out due to a lack of resources, unsuitable roofs and/ or being a renter. Participants buy shares or subscribe to a solar farm, and subsequent savings are credited directly on their electricity bill.

The Solar Gardens Project is led by the Institute for Sustainable Futures (ISF), University of Technology Sydney and Community Power Agency. The research is funded by the Australian Renewable Energy Agency (ARENA) and NSW Government with further cash and in-kind contributions from the project partners. It is developing the business models for the first solar gardens in Australia in locations across Victoria, New South Wales and Queensland.

The first phase of the market research comprised both quantitative methods in order to gain statistically significant results and qualitative methods to gather rich data on opinions, perspectives and reactions on Solar Gardens from individuals. Specifically we ran five rounds of message testing through Facebook, using split test functions to conduct trials of different advertisements that framed Solar Gardens in different ways. This method was complemented by qualitative data collection in the form of eight focus groups in all prototype locations, seven face to face and phone interviews in Queensland and Swan Hill, and a small scale survey in Shoalhaven. Phase 1 of the market research collected data and insights from individuals on their electricity and solar power literacy, general reactions to Solar Gardens, preferences in the financial model, the interest in cross-subsidising, if location mattered, desired marketing and communication channels and trusted entities a Solar Garden offer should come from. Overall the results demonstrated a great interest in the concept of Solar Gardens in Australia. The research participants universally applauded the concept for its social justice commitment and potential to offer personal benefits.

This report summarises the approach and results of the second phase of market research for the Social Access Solar Gardens project. The second phase of the market research was more limited in scope, with the aim of assisting teams to refine their messaging and determine the best way to promote their offers to the public. Specifically, the teams had to produce a mock product, for example a brochure, flyer or mock bill. The market research set out to test these mock products with a particular target audience, selected by the team.

The research drew on the insights and knowledge gained in Phase 1 and was again informed by behavioural economics. Each team ran one (to two) campaign through Facebook to test their messages, using split test functions to conduct trials of different advertisements that framed the team's offer in different ways. Facebook advertisement was chosen as the preferred method for this phase of the market research, primarily because of budget and time constraints.

This report is structured into 4 sections:

- Section 2 provides the methodology which includes the mock product definition, why and how Facebook is used for advertisement by each of the teams
- Section 3 provides the Facebook testing results of each team and an analysis
- Section 4 discusses the results and summarises the findings

2 Methodology

The design of this phase of the market research was limited in scope and specifically tied to testing the mock product. Answering the following questions helped to focus the implementation:

- What is a mock product?
- What is an effective approach to test the mock product? Why choose Facebook advertisement?
- How to determine the performance of a mock product?
- Which mock product achieves the best results and why?



2.1 Defining a Solar Gardens Prototype Mock Product

The mock product was defined as any means to promote the team's Solar Gardens offer; teams considered their target group and distribution channels in order to determine the type. Depending on the product, different amounts of content were appropriate. Teams were requested to produce just one type of mock product for testing owing to the limited scope of this market research phase, although if the prototypes go ahead each team would use multiple methods and products to reach their target audiences.

Teams were also restricted in what they could test, as they were mindful not to raise expectations unduly, or imply they were offering something that was not actually on offer – so for example, they could not invite people to sign up for a solar garden, as it is not actually available.

The teams' efforts to produce a mock product were guided by the following questions:

- 1. What is the most important information to help you make a decision on whether to proceed with a Solar Garden pilot is it about total uptake? which audience to target? how to pitch the costs and benefits? Or something else? (only choose one!)
- 2. What package of communications products are you planning to use if you go ahead to a pilot project? (e.g., flyer, email)
- 3. What are the goals of each of your planned products?
- 4. What are the key messages of these products?
- 5. In what ways will you vary the content of the materials across your selected channels?
- 6. Are there certain customer segments that you believe require different messages than others? Or would you propose a single 'mass' campaign?
- 7. What are the main obstacles/blocks that are preventing you from finalising the mock product? Are there any special skills/expertise that will help you overcome these hurdles?

To further assist the teams, a list of potential products, target groups, distribution channels and possible content of information to include in the product (e.g. FAQ and details of how the solar garden works) was provided (please see Appendix 1). This information can also be used to inform future Solar Gardens product development.

To develop the mock product – specifically the text for the Facebook ad – all teams were assisted by Dr Karen Stenner of Concentric Energy¹ who offered her expertise in behavioural economics to improve the wording and appearance of the marketing material.

2.2 Why use Facebook?

This phase of market research was limited in scope, budget, and time frame, and Facebook advertising was therefore identified as an effective channel to test Solar Gardens mock products. The split test function in Facebook allowed us to trial different framings of the product offers at reasonable cost, while determining the response of selected local audiences.

Facebook has a large audience and good market penetration, and social media advertising has grown into a highly popular marketing channel. As of the second quarter of 2018, Facebook had 2.23 billion monthly active users (those which have logged in to Facebook during the last 30 days). In Australia, there are about 15 million users (Statistik 2018. Facebook reports that its users spend 50 minutes on average daily on one of their platforms including Facebook, Instagram and Messenger platforms (excluding WhatsApp).

In addition, advertising on Facebook is relatively simple in the set up, has relatively low costs and can generate results in a short timeframe (usually 7 days). Each team was able to run a customised campaign (with images and text) focussed on their local audience and test their relative level of interest in a 'real' advertising situation where the ad(s) compete(s) with both messages and other ads.

However, while providing large-scale statistical results, Facebook advertising has limitations. The competition with and noise of other activities on the platform can create a distracting situation which can leave the message unnoticed – although this is also the case in real life. There is only limited influence on the specific audience since Facebook has changed its algorithms. This means that specific target groups such as "renters" or certain income levels could not be selected again.

Furthermore, while the results can tell us how many people have seen and interacted with the ad, and which framing creates higher responses, it is left to interpretation why one ad performs better in one location than the other (e.g. urban versus rural/ regional setting). It would require further testing with different 'owners' (advertising managers) and a larger sample size (additional urban and rural areas) to



¹ Please see also http://www.concentric.energy.

better understand the reasons for successful or less successful ads (e.g. aspects of trust, competing activities etc.).

2.3 Facebook testing process

The main focus of the split testing was to trial different framings of advertising text; to this end only one image was used per campaign and per target group. The same process could be used to test the effect of different images.

While the ads were different for each team, the process of sending out the ads was (relatively) similar across the different locations. Each team was responsible for sending out their ad, as it was important that the ad was linked to one of the teams' organisations. To assist the teams, we developed a manual which talked them through the different steps of ad set-up (see Appendix 2).

The common settings for the ads were:

- Marketing objective: Traffic (except for Pingala)², which determines either if people are send to a
 destination on or off Facebook (Website Clicks) or increase the number of people going to your
 mobile or desktop app (App Engagement).
- Split test, which enables testing different versions of an ads (different text, images or audiences) aiming to best meet the objective, and sees which performs best for the same total spend.
- Variable: Creative, which enables add to be served to the same audience but the text or images
 could be varied.
- Each team had a budget of \$150 per ad (however due to misunderstandings some ads only ran with a budget of \$75)
- Duration of 7 days

Individualised settings comprised:

- Advertising organisation (ad manager)
- Number of campaigns/ ads
- Pictures (however per campaign only one image was used)
- Text of ads
- Landing page for registration of contact details
- Target audience

Blacktown team

The Blacktown team (Blacktown City Council, Powershop and Pingala) decided to run one campaign calling for expression of interest in participating in a (hypothetical) information event about their specific Solar Garden offer. While using the split test function, three different framings of their offer were tested. As shown in Figure 1 the ads comprised an environmental, financial and community-oriented approach. The Facebook users were encouraged to click on the ad(s) which led them to a landing page to pre-register and leave their contact details (as an example see Figure 2).

In the Blacktown team, the Community Organisation Pingala launched the advertising campaign via their Facebook page.

While the other teams used "Traffic" as their marketing objective, Pingala used "Conversion" as their goal. This function required some additional installations (Facebook Pixel) on the teams website to track actions. However it promised to be the more effective goal for getting people engaged in the campaign speficially signing up to the event.

Pingala specified the audience only by location. They chose a broad audience in the Blacktown area in a 17km radius.

8 November 2018

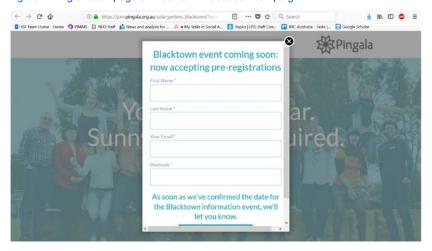


² In contrast to the other teams who used the marketing goal "Traffic", Pingala has used "Conversation" as their marketing goal. For the purpose of the campaigns this goal was considered the better choice. However it required some additional settings and installations on the website which not all teams were able to do.

Figure 1: Blacktown team: three versions of the one advertisement



Figure 2: Registration page of Blacktown Facebook campaign





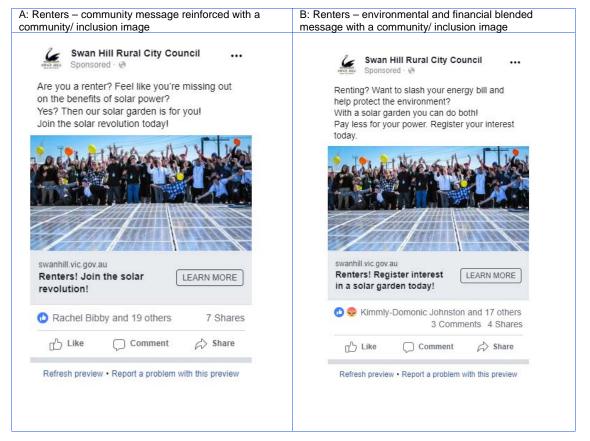
Swan Hill team

The Swan Hill team ran two parallel but separate campaigns. The first campaign targeted renters and the other one targeted businesses. As shown in Figure 3, the renters campaign comprised two ad versions, one with a community framing and one with an environmental/ financial framing. The campaign mainly targeting businesses split into a financial and an environmental approach. Both campaigns called for expression of interest of people to register with their email address for receiving more information about the Solar Garden offer (see Figure 4).

The campaigns were launched by Swan Hill Council. Their media team set up the ads and the landing page for potential customer registrations.

The Council specified the audience in their renters campaign to include everyone in Swan Hill area in a radius of 50km. For the business audience, they selected, in addition to the above, small business owners, business owners and self employed.

Figure 3: Swan Hill team - two versions of each ad for two campaigns





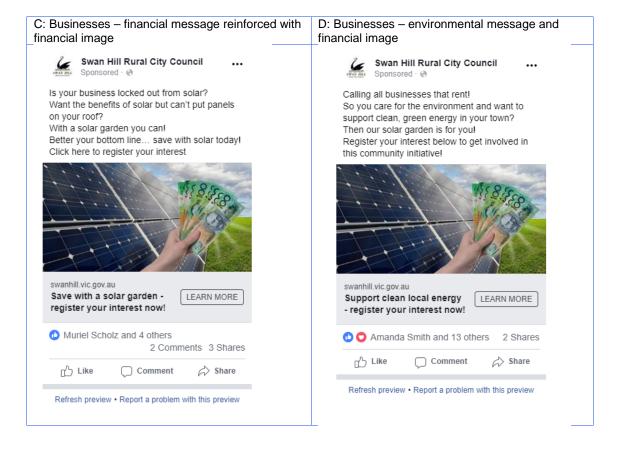
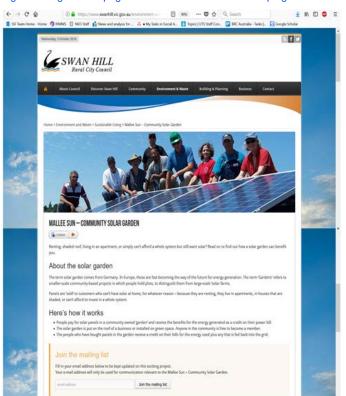


Figure 4 Registration page of Swan Hill's Facebook campaign





Shoalhaven team

The Shoalhaven team ran one campaign with two different ads.

The community organisation Repower Shoalhaven was responsible for the launch of the ads and the collection of results on their website (see Figure 6). As shown in Figure 5, the text of the first ad emphasised a financial and environmental framing, while the second one accentuated a community framing. The ads call out to potential investors and the wider community to join a potential Solar Garden at a former waste management site in North Nowra.

For both ads, a broad audience was selected that was only limited to the local Shoalhaven area, with a radius of 20 km.

Figure 5: Shoalhaven team - two advertisement versions

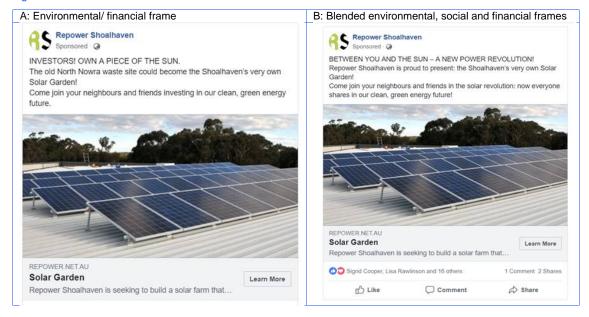


Figure 6: Registration page of Repower Shoalhaven's Facebook campaign





Enova

Enova Retailer is developing a different Solar Gardens model than the rest of the teams, as they are looking at behind-the-meter installations because the financial return is likely to be better. Enova is further advanced than the other teams, as they started before the Social Access Solar Gardens project commenced, and are already committed to developing their solar garden, Enova is however participating in the market research stream of this project.

A third party provider launched Enova's Facebook campaign and facilitated the ad testing and collection of results (see Figure 7). Ad A was focused on the benefit and renter integration while ad B had an environmental focus both calling to "Learn more" about the offer. By clicking users were guided to Enova's website to "Register for updates and developments on membership or becoming a Host" (see Figure 8).

The ads were set to measure traffic and were shown to a both a lookalike audience (people similar to those who have liked Enova Community Energy on Facebook and have visited their website) and a remarketed audience (visitors of Enova's website and Enova's Facebook page) in a 40 km radius of Byron Bay (including Lismore).

Figure 7: Enova - two advertisement versions

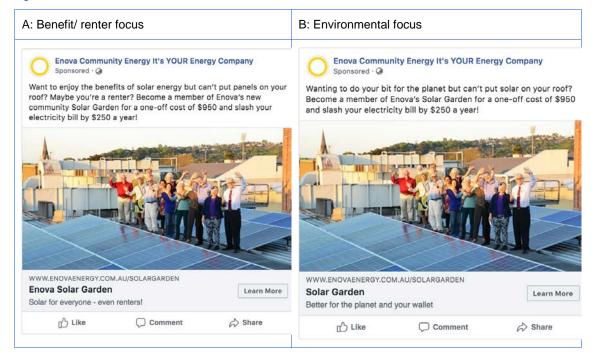
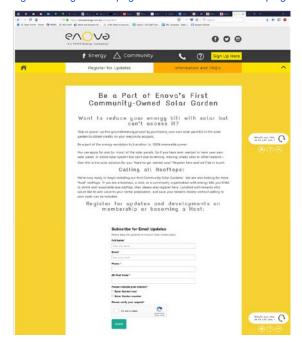




Figure 8: Registration page of Enova's Facebook campaign





3 Facebook testing results

3.1 Blacktown team

Results

The results of Pingala's campaign are shown in Table 1. The goal of this campaign was Conversion, defined as viewer first clicking on a link to the expectation to generate traffic to the organisation's website.

Table 1: Results of Blacktown/ Pingala's Facebook campaign

Ads	Reach	Impressions	Amount spent	Results (link clicks)	Click rate (results/ reach)
A: Environmental frame	4,016	6,027	\$138.32	25	0.6%
B: Financial frame	4,410	6,607	\$139.04	39	0.9%
C: Community frame	3,817	5,655	\$139.20	42	1.1%
Total	12,243	18,289	\$416.56	106	0.9%

The ads resulted in a conversion rate³ of 11.4% compared to click throughs, with 12 completed web form registrations (contact details submitted) on the Pingala website.

Several observations can be made:

- Community approach is the most effective message, followed by the financial message, both of which performed better than the environmental message.
- The budget of \$416.56 enabled a relatively large reach which means that 12,243 people have seen the ads at least once. However, after seeing the ad on average for 1.4 times only 0.9% (results/ reach) of the people engaged with the ads through clicking on the link to the Pingala website.
- It was even more difficult to generate numbers for registration. The results show a conversion rate of 11.3% (12 from 106) of people who clicked on the ad acutally completed the web form to register for the information event.

A 2-5% click rate on Facebook is typical for the Australian not-for profit sector advertising, which indicates that the Blacktown team's campaign had little success in catching people's attention to engage with the ads (0.57% - clicks (result/ impression)). However, it achieved a good result in the conversion of clicks to registrations on the website (11.4% conversion rate).

Possible explanations for the poor overall performance of the ads include:

- The ads did not follow the advice from Phase 1 of the market research to use interesting and attention-grabbing images, such as the aerial photograph showing solar 'haves and have nots'. The doodle image may have been too generic to capture attention.
- The ads relied heavily on text, using it in the image as well as in the ad text. Facebook states that images with less than 20% text perform better.
- As the advertiser, Pingala may have lacked local recognition and been seen as 'just another business'



³ Click rate in relation to the number of completed online forms.

• The 'ask' in the ad required people to attend an information session and 'sign up' rather than just clicking to learn more. This kind of ask requires a higher level of commitment.

The particularly poor performance of the environmental message confirms again the findings of the market research phase 1 where the environmental benefits were not a strong motivation for the target audience.

3.2 Swan Hill team

Results

The results of the Swan Hill Council campaigns are shown in Table 2. The marketing goal was traffic (clicks through to a website), chosen because it did not require any further installations on the Council website.

Table 2: Results of Swan Hill's Facebook campaigns

Campaigns/ ads	Reach	Impressions	Cost per result	Results (unique link clicks)	Click rate (results/ reach)		
Campaign - Renters							
A: Community frame	3,062	8,905	\$0.50	146	4.8%		
B: Environmental and financial frame	2,976	9,050	\$0.60	118	4.0%		
Total	6,038	17,955	\$0.55	264	4.4%		
Campaign – Business	ses						
C: Financial frame	920	7,052	\$1.47	48	5.2%		
D: Environmental frame	979	7,035	\$1.74	40	4.1%		
Total	1,899	14,087	\$1.60	88	4.6%		
Overall Total	7,182	32,042	\$0.82 (per link click)	347	4.8%		

The ads resulted in a conversion rate⁴ of 14.1% of click throughs, with 49 completed web form registrations on the Swan Hill Rural City Council website.

Several observations can be made:

- The community approach is the most effective framing, both in the renters campaign and overall. This is somewhat suprising since in the first phase of market research, the financial message won in a larger-scale test across all locations. This may be because the other ad's text was blended with environmental message, which has performed worst in the previous tests. Alternatively, it may reflect a higher focus on community in Swan Hill, which may be typical of regional towns.
- The renters campaign reached 6,038 people (people who saw the ad at least once). The users were on average 2.9 times exposed to the ads and consequently generated 264 click throughs (4.37%) to the Council website. While this exposure is still (much) lower than in the businesses campaign, it is higher in comparison to the other two teams. This might indicate that there is less competition in Facebook advertisement in the Swan Hill area or that the ad was better targeted to the audience. It is also likely that having Swan Hill Council as the advertiser resulted in a greater level of recognition and trust from the audience, consistent with the findings from Phase 1.



⁴ Click rate in relation to the number of completed online forms.

- Despite the same budget of \$75 per ad (total of \$300 for both campaigns), the businesses campaign reached fewer people (total of 1,899), but these Facebook users have seen these ads 7.4 times.
- The financial framing performs best in the business campaign.
- Overall the business campaign performed similarly well generating 88 click throughs (4.63%) to the Council website.

Despite the lower budget, the Swan Hill team's campaign was highly successful. This is also reflected in the cost per result which are significantly lower than, for example, in the Pingala campaign. It generated good traffic on the Council's website (4.8% click rate) resulting in a conversion rate of 14.12% (49 from 347 people) of the clicks translating into actual registrations (people completing the web form).

There are multiple possible explanations for the better performance, encompassing the ads themselves, the audience, and the organisational nature. The images used in the campaign were more attention-grabbing than those used by Pingala, with less text, the 'ask' was more modest (click through to learn more), creating less of a barrier to action, the organisation was arguably much better known (Swan Hill council compared to a small community group), and the audience was rural rather than urban.

However, in both campaigns the environmental message performed less successfully than the financial or community frame, which is consistent with the findings of the Phase 1 research.

3.3 Shoalhaven – Repower Shoalhaven

Results

The results of the Repower Shoalhaven's campaign are shown in Table 3. Again, the marketing goal was traffic.⁵

Table 3: Results	of Donous	· Chaalhayan'a	Facebook	
Table 5: Results	i oi Rebowei	Shoainaven s	Facebook	campaign

Ads	Reach	Impressions	Cost per result	Results (unique link clicks)	Click rate (results/ reach)
A: Community frame	3,097	6,015	\$0.66	100	3.23%
B: Financial/ environmental frame	3,217	6,014	\$0.54	134	4.2%
Total	6,314	12,029	\$0.6	234	3.7%

The ads resulted in a conversion rate of 9.4%, with 22 completed web forms registrations on the website of Repower Shoalhaven.

Several observations can be made:

- The financial/environmental framing performs best in this campaign which might be because the ad
 addresses "Investors" clearly at the beginning, catching the attention of the desired audience.
 Although in comparison to the first phase of market research a different target group was approached
 in these ads, the results indicate that the financial in combination with the environmental message
 appeals to a potentially more affluent audience.
- The campaign was launched with a total budget of \$150 (\$75 per ad) and reached a total of 6,314 people (people who saw the ad at least once).
- The users saw the ads on average 1.9 times which consequently generated 234 click-throughs (3.7%) to Repower Shoalhaven's website.

The campaign performed relatively well on the click rate (3.7%), it was less successful than the Swan Hill campaign to convert those clicks to registration of interest by completing the web form. The generic image of solar panels without people or money in the frame was perhaps less attention-grabbing than the images

⁵ When Traffic as the objective in a Facebook advertising campaign, you can create ads that either to end people to a destination on or off Facebook (Website Clicks), and increase the number of people going to your mobile or desktop app (App Engagement).

used by Swan Hill. Further, Repower Shoalhaven may have lacked the brand recognition of a Council, although having Shoalhaven in its name helps to brand it as local, which may have improved recognition relative to Pingala.

3.4 Enova

Results

The results of the Enova's campaign are shown in Table 4.

Table 4: Results of Enova's Facebook campaign

Ads	Reach	Impressions	Results (unique link clicks)	Click rate (results/ reach)
Ad A – Renters	2,176	3,641	7	0.32%
Ad B - Environment	2,120	3,417	10	0.47%
Total	4,296	7,058	17	0.39%

The ads resulted in a conversion rate (clicks/webforms) of 35.2%, with 6 completed web forms registrations on the website of Enova within the week of advertising.

Several observations can be made:

- The Environment (Ad B) performs better in this campaign, yet the ad with the benefit/ renter connotation is shortly behind. The results confirm the findings of the first research phase which triggered a response of a more environmental concerned audience
- The campaign spent \$98.69 for both ads and reached a total of 4,296 people.
- In comparison to the other team's campaigns, the reach of this campaign was rather small. The users saw the ad 1.6 times on average. One possible explanation is the audience choice and the that Enova has been actively promoting other campaigns in the last weeks. While the lookalike audience and a re-marketed audience are more familiar with the Enova brand and generally more interested in their activities, there might also be some information fatigue.
- Nonetheless it has to be highlighted that the conversation rate is the highest from people guided to the website to completing the web forms.

It can also be noticed that the information about potential benefits of the solar garden (savings etc.) are not displayed either on the website above the registration form. Further, the website text above the registration form is relatively long and has different messages – such as it does not exclusively target renters, it also addresses potential host sites. Hence this could leave the reader confused and not necessarily convinced that the form is right for him/her to complete. This means the website should separated the information for the different target groups and the sign up forms (host sites, renters, people with shaded roofs etc.).

In addition, it can be noticed that the text of the Enova website on the Solar Garden project didn't change for a couple of weeks/months and (regular) visitors to the website didn't see any new information upfront that could have grabbed their attention to take action in signing up.

Lastly, Enova, similar to Repower Shoalhaven, may lack the brand recognition of a Council. Yet, it can be assumed that the regional setting, Enova's previous marketing efforts and the choice of target group have contributed to a recognition relative to Pingala.

4 Discussion and summary

The results of the Facebook campaigns are summarised in Table 5. Both Swan Hill and Repower had clicks per reach at the higher end of the average for the Australian not for profit sector (2-5%), while Pingala's campaign performed much less well, with a click rate for the Blacktown campaign of only 0.9%. However, the conversion rate from clicks in Blacktown was similar to the other campaigns.



Table 5: Summary – overall performance of the teams Facebook campaigns

Campaign hosts	Total Reach	Total Clicks	Total Registration s	Impressions	Clicks per reach (%)	Registrations per clicks (%)
Pingala	12,243	106	12	1.4 times	0.9%	11.3%
Swan Hill Council (both campaigns)	7,182	347	49	4.48 times	4.8%	14.1%
Repower Shoalhaven	6,314	234	22	1.9 times	3.7%	9.4%
Enova	4,296	17	6	1.6 times	0.39%	35.2%
Total	30,035	704	89	2.34 times	2.44%	17.5%

The Swan Hill Council campaign was by far the most effective generating 49 registrations on their website. However people were served the ads on average 4.48 times for this result (see Table 5), which might indicate that the more Facebook users are exposed to the ad(s) the more likely they engage with it.

Table 6: Summary – performance of different framing

Ads	Shoalhaven (general)	Swan Hill (renters)	Swan Hill (business)	Blacktown (general)	Enova (general)
Community/ renters frame	3.2%	4.8%	n/a	1.1%	0.32%
Financial/ environmental blended message (Swan Hill and Enova used community/ inclusive image)	4.2%	4.0%	n/a	n/a	0.47%
Financial	n/a	n/a	5.2%	0.9%	n/a
Environmental (in Swan Hill with financial image)	n/a	n/a	4.1%	0.6%	n/a

The results for the alternative framing were not clearcut, as shown in Table 6. The community framing in Swan Hill performed better than the financial/environmental blend among renters, and the community messaging was also the best performer in Blacktown, although the gap was not so large. In Shoalhaven and Byron Bay/ Enova the financial/environmental blend outperformed the community/renter message, and among the business audience in Swan Hill the financial message performed better than the environmental (the community message was not tested with this audience, nor was a financial/environmental blend).

Across all four campaigns the ads with the community/renters frame were similarly successful to the ads with the financial/ environmental message. Since the financial message came out as a winner in the last market research phase (Round 3), closely followed by the social inclusive message, the results might indicate that blending the environmental and financial frame appeals to a limited audience. Separating the financial from the environmental message as it was done in Swan Hill Council's businesses campaign showed that the financial frame is winning over the environmental message. Nonetheless, there is certainly an audience for a combination of financial and environmental message and so it should not be abandoned. This is particularly the case where investors with environmental motivations are approached as in Repower Shoalhaven's campaign.

It can be concluded that the social inclusion and financial message have the most appeal to the target audience. However the blended environmental/ financial message also appeals to specific local audience such as in Byron Bay/ Enova.

The click rates across all the tests were above average for an offer on Facebook sent by not-for profit organisations, except for the Blacktown campaign. About 4.2% of people who were served the ads (Swan Hill and Repower Shoalhaven) were sufficiently interested to click on the ad. Though the Facebook users saw the ads at least twice before engaging.

The poorer performance of the Blacktown campaign might have a number of causes, and withough running further tests it is not possible to distinguish. Firstly, grasping the attention of an urban audience



may be harder than in regional or rural areas, as the competing advertising in urban settings is higher leading to an oversaturation of the audience. Secondly, Pingala as an organisation might be less known in the highly-populated urban environment than the community organisation Repower Shoalhaven in the Shoalhaven area or the Council in Swan Hill (and indeed the name Repower Shoalhaven positions it as a local organisation, regardless of whether it is known). Thirdly, the ads themselves may be important contirbutors – the image choices, heavy use of text and a higher level of 'ask' in Blacktown may also have led to lower engagement.

The results of the Blacktown campaign should not be considered as a measure of audience interest in a local Solar Garden. Instead, it indicates that Facebook may not be the most appropriate marketing channel and other ways of advertising (stalls, face to face meetings etc.) could be more successful. However, the possible contributing factors could be relatively easily tested by re-running a facebook campaign with less text and different images, and If the pilot goes ahead, the organisational effect could be tested by running a campaign hosted by Blacktown City Council, as a well known and trusted organisation.

Similar to the market research phase 1, the ads were informed by principles from behavioural economics to attract attention, such as emphasising social norms and including a call to action. The texts went through several rounds of revisions to specify the language and emphasise the benefits of a Solar Garden using direct speech appealing to the actual concerns of people (e.g. "Are you a renter?...").

Although the images were not necessarily a focus of these tests, the results demonstrate again that an image that reinforces or complements the message in the text clearly improves the performance of an ad. The choice of the image in the renters campaign of Swan Hill (people in front of solar panels) was arguably the most suitable for carrying the message and to capture the audience attention. This also confirms the findings from the first market research phase, that images emphasising the message in the text performed better than neutral images, such as the generic cartoon images used in Blacktown.

Lastly, the appearance of the web form and the level of contact details requested might also impact the likelihood of the user completing the form. It can be assumed that if the user can't find the respective field for entering his details at first view, the form is too onerous asking to many questions, or the user will have to go to yet another page their attention might get lost and they will not follow through.

To conclude, Facebook has proven to be a useful marketing channel, although it may not work for all locations and audiences. Facebook appeared to work better in regional and rural settings, although it is not possible to isolate this as the cause. All messages – community, financial and environmental – attracted an audience and generated interest in the offers. Hence alternating the messages when promoting the Solar Garden could reach a broader audience. Having said that, Facebook might not be the right channel to reach very specific target groups (such as low income households), since its approach is rather broad. The lessons from behavioural economics are relevant, such as using a message in direct speech which addresses the audience concerns, as is more general marketing advice, such as paying attention to attuning the text with the choice of image, and reducing the amount of text.

The lessons from the Phase 1 market research remain relevant to future attempts to market Solar Gardens. Additional lessons evident from Phase 2 include:

- The important role played by image choice in capturing attention, with Swan Hill's images of solar panels and people being the most successful
- Further evidence that a local, recognised organisation is the best choice to market the solar garden
- The importance of ensuring that a Facebook ad does not ask too much of the viewer. There is less commitment needed to click to "learn more" than there is to click to "sign up to attend an event". It may be better to use Facebook to capture attention and leave the main 'ask' for the linked website.
- The value of having teams tailor ads for their audience, and test in their context, rather than only
 relying on large-scale market research. It is relatively easy to test atlernative messages on
 Facebook, and see which gets the better responses; this information can then be used to tailor
 information which is going to be used in other channels.



Appendix 1

Potential product	Product target group – potential target groups	Product distribution channel(s) – potential distribution channels	Possible content – lists the types
Brochure Flyer Newsletter text/advertisement Facebook advertisement Email text PowerPoint presentation Phone app advertisement Television ad Radio text Phone call/ face to face/ direct sales' text Prospectus document Mock bill	 Renters – low income Renters – middle/ higher income Renters – in strata title properties Social Housing tenants Home owners with inappropriate roofs Renter – businesses 	 Mail Email Newsletter Television Radio Local/ regional newspaper Website advertisement (Existing) App advertisement Facebook One on one meetings – door sales Phone calls Events (e.g., launch, town hall event, workshop), Community discussion, workshops Local (face to face) sales contact to sign up/ subscribe 	 Main responsible organisation(s) Main contact(s) / Phone number to call for further details Next (specific) steps to sign up (i.e. what do you do) Catchphrase(s) - why sign up or descriptor \$ savings or payback time (e.g. graph) CO2 savings Costs and fees Ownership – lease or upfront payment Picture of (some) solar panels and people Location of the solar garden Website (link) with additional information Contract info: length, exit options, additional fees, etc. Info about risks and liability Info on social benefits (low income cross-subsidising) Info on other environmental benefits (reduced pollution, support energy transition) Ongoing engagement - will there be newsletters, mail outs, meetings, how often, etc. When the solar farm is set up/ ready to operate (time line) Number of available shares to subscribe/ pay Additional information: O&M costs of solar farm technical details of solar farm poyed of panels) More details about organisations involved Project origin/ background Who is solar installer/ supplier

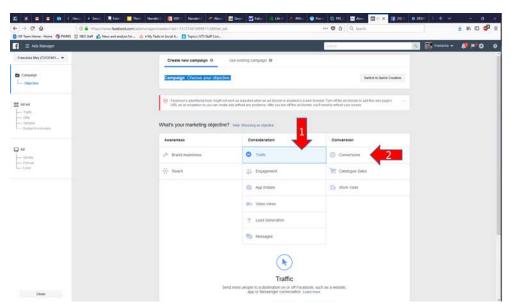


Appendix 2

Solar Gardens Market Research - Facebook Testing Guidance to Set Up Facebook Ad



Connect to www.facebook.com /business/products/ ads

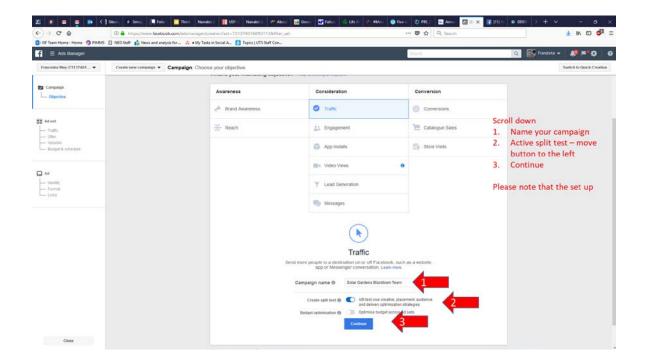


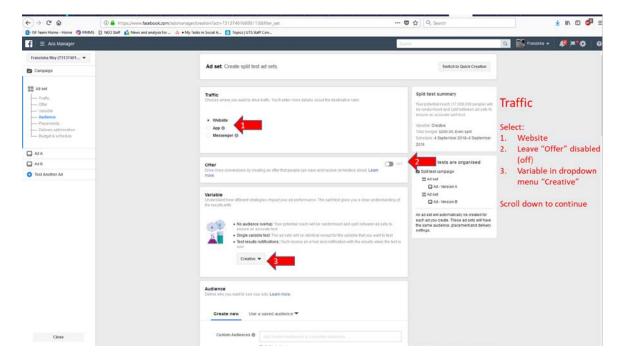
Select campaign objective:

Traffic (1)

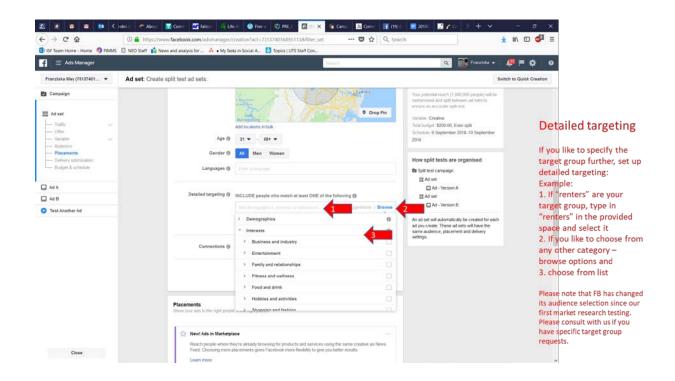
or Conversions (2) (conversion will be the better choice/ campaign goal, but it is a bit more complicated in the process to set up as you need to do some work on the web page code. As long as you are OK with doing that, it would definitely be a better campaign goal.) See:

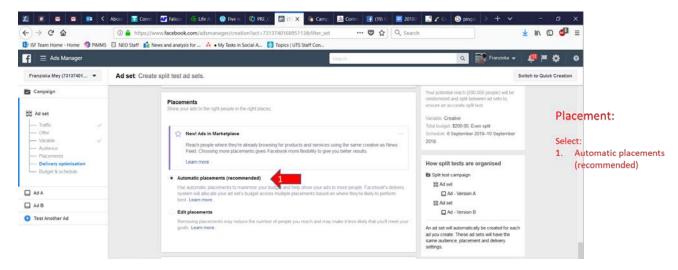
https://www.facebook.com/ business/help/95219235484 3755

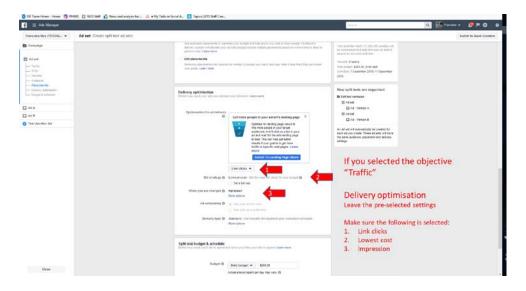




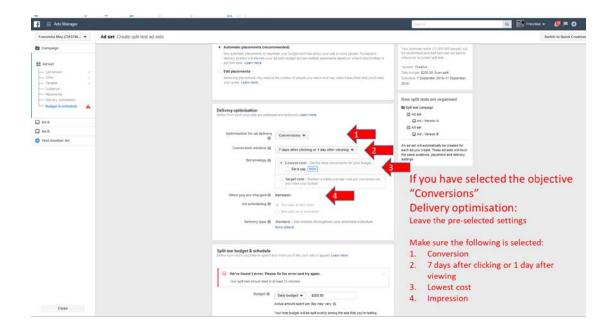


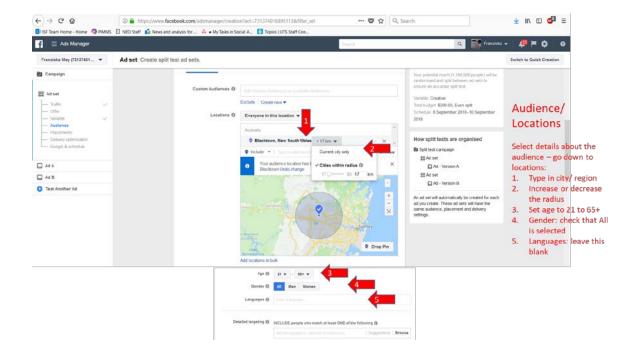




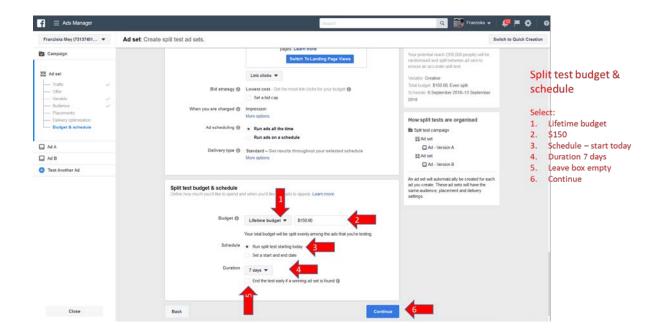


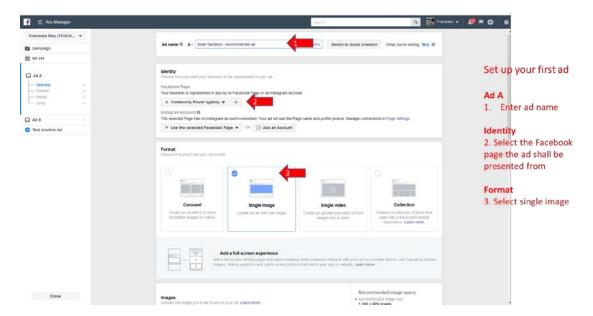




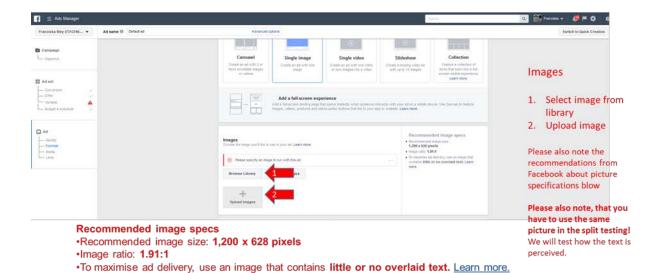








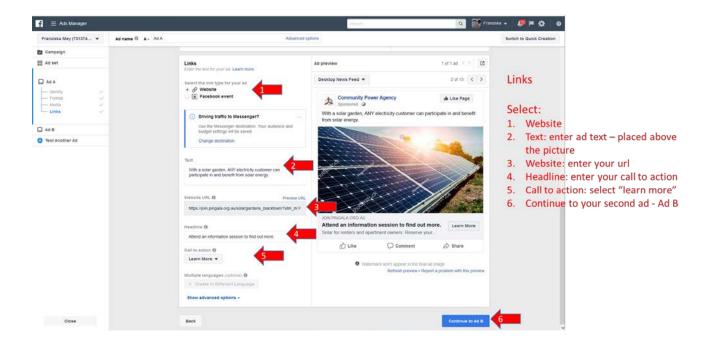




Facebook says:

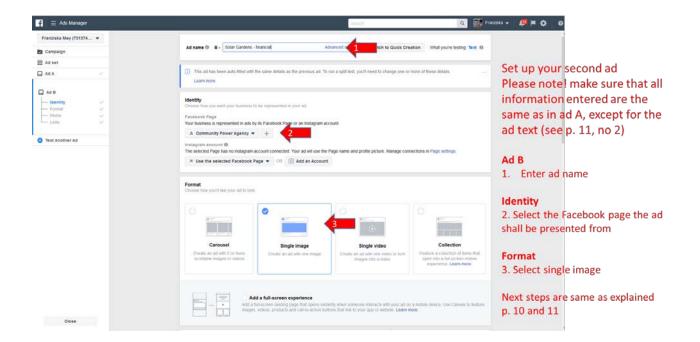
We've found that images with less than 20% text perform better.

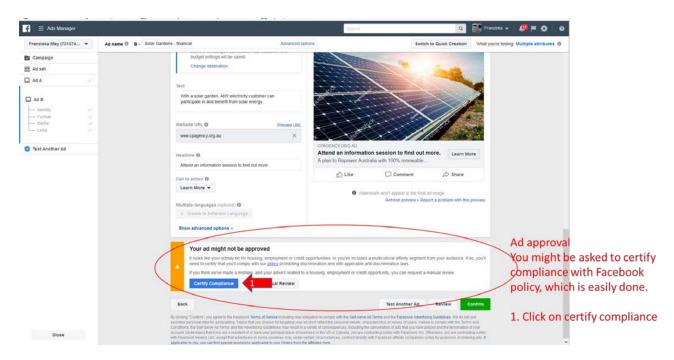
To create a better experience for audiences and advertisers, ads that run on Facebook, Instagram and Audience Network are subject to a review process that looks at the amount of image text used in your ad. Based on this review, ads with higher amounts of image text may not be shown. Bear in mind that some ad images may qualify for an exception. For example, book covers, album covers and product images usually qualify for an exception.



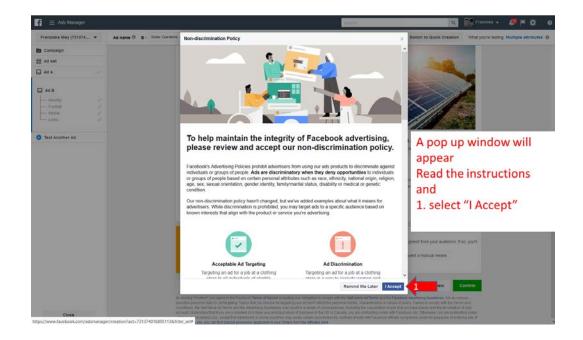
8 November 2018 27

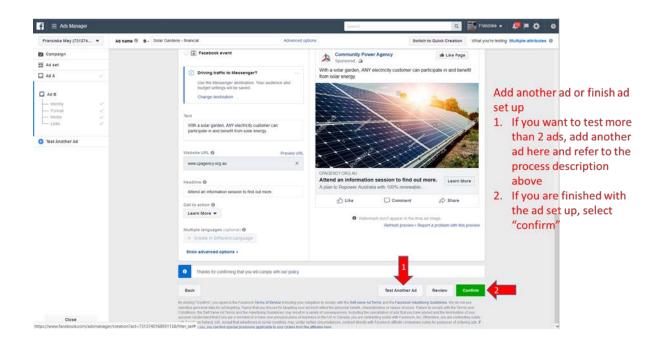




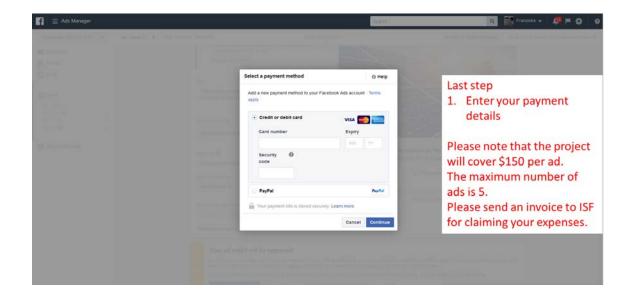












Please send us the results of the Facebook ad performance after the 7 days of testing – we need the results **until the 19 September 2018 (at the lastest)**. The results can be found on the summary page and will look similar to the image below. A screenshot would be most useful.



Please don't hesitate to contact me if you have any questions with setting up the ad. Fran

