aurecon

Vegetation Management Engagement Program

Engagement and Feedback Summary Report

Ausgrid

Leading. Vibrant. Global.
www.aurecongroup.com

Document control record

Document prepared by:

Aurecon Australasia Pty Ltd

ABN 54 005 139 873

Level 5, 116 Military Road
Neutral Bay NSW 2089

PO Box 538
Neutral Bay NSW 2089
Australia

T	+61 2 9465 5599
F	+61 2 9465 5598
E	sydney@aurecongroup.com
W	aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control						**aurecon**
Report title	Engagement and Feedback Summary Report					
Document ID	Final		**Project number**		247987	
Client	Ausgrid		**Client contact**		Peter Leate	
Rev	**Date**	**Revision details/status**	**Author**	**Reviewer**	**Verifier** (if required)	**Approver**
0	18 January 2016	Final	J Fredericks	L Stewart	n/a	K Cochrane
1	22 February 2016	Ausgrid comments incorporated	J Fredericks	L Stewart	n/a	K Cochrane
2	29 February 2016	Ausgrid comments incorporated	J Fredericks	L Stewart	n/a	K Cochrane
Current revision	**2**					

Executive summary

Aurecon was engaged by Ausgrid through its Community Engagement Service Panel to conduct a stakeholder and community engagement program for its vegetation management around power assets.

The vegetation management engagement program sought to understand community interests, develop a shared understanding of the need for tree trimming and inform future improvements in the way Ausgrid performs tree trimming.

Each year Ausgrid invests approximately $40 million in tree trimming and other vegetation management activities. This represents a significant part of Ausgrid's overall maintenance operation. Trees are typically trimmed to ensure the required safety clearance distance between powerlines and trees.

Historically vegetation management has been a source of community complaints and negative media. This is primarily due to community concern about the visual impact of tree trimming and negative responses to the current trimming practices and level of engagement.

As part of the engagement program, key stakeholders, including Local Government Authorities, local members of state parliament and community groups, were invited to take part in a variety of engagement activities.

The engagement included interviews with stakeholders, an online survey, pop-up engagement, digital engagement and social media. This report provides a summary of the feedback received during the engagement.

A series of key findings have been concluded from the feedback collected. Recommendations to improve and enhance Ausgrid's communication and engagement with stakeholders and communities around its vegetation management have also been provided.

Key findings

- Tree trimming is a community issue and area of interest. Ausgrid should dedicate additional effort and resources to improve their tree trimming practices.

- Stakeholders have expressed concerns about the quality of documentation including guidelines and processes that inform Ausgrid's tree trimming practices.

- Stakeholders and the community believe the impacts (visual and health) of tree trimming should be critical to the decision making process. Ausgrid should consider more than just the need to achieve a minimum safety clearance.

- Ausgrid should review the ways in which it communicates decision making. It should also consider alternative options to tree trimming such as aerial cable bundling and replacement and replanting programs.

- The community want to be kept informed/ consulted about tree trimming.

- The community believes that partnerships between Ausgrid and local councils would deliver better vegetation management and visual amenity outcomes.

- Consumers involved in this engagement have expressed a potential willingness to pay more for electricity if it results in better outcomes.

- Ausgrid's engagement with local councils across its network has been inconsistent. In some locations Ausgrid has poor relationships with stakeholders and communities as a result of tree trimming.

- Stakeholders and the community have a limited understanding of how Ausgrid operates.

Key recommendations

- Develop a dedicated program to engage all stakeholders on vegetation management.

- Establish a notification process (in line with current industry practices) to proactively inform impacted stakeholders ahead of tree trimming.

- Engage stakeholders in a review of existing guidelines and documentation to understand and align with stakeholder and community expectations.

- Conduct a review of information available to the public about tree trimming to increase accessibility and transparency of information.

- Develop a framework to assess the costs and benefits of proposals for tree trimming alternatives such as remove and replant programs or aerial cabling bundling.

- Establish a vegetation management service charter that outlines how stakeholders and communities will be informed, consulted and involved.

- Undertake an awareness campaign to target all stakeholders and consumers regarding the importance of vegetation management.

Contents

1   Introduction

Ausgrid is a state owned electricity infrastructure company that owns, maintains and operates electrical distribution networks throughout New South Wales, providing electricity to more than 1.6 million customers in Sydney, Central Coast, Hunter Region and Newcastle.

As part of its maintenance program, Ausgrid is required to undertake tree trimming and vegetation removal across its network to keep the community safe and to ensure the reliability of electricity supply to its customers. Trees are trimmed to establish the required safety clearance distance between powerlines and trees.

Based on historical data, up to 60% of all outages are related to external factors such as trees interfering with powerlines. Removing branches from around powerlines and power poles helps prevent blackouts, bushfires and accidental electrocution.

Each year Ausgrid invests approximately $40 million in tree trimming and other vegetation management activities. This work is required for a number of reasons:

1. Trees coming into contact with powerlines are a major cause of outages on the electricity network.
2. Trees growing into powerlines can cause significant safety hazards for the community by bringing down live wires or provide a climbing aid to electrical infrastructure.
3. Trees near powerlines can also pose a bushfire risk.

The vegetation management performed by Ausgrid is based on the industry guideline ISSC3 and Australian Standard for amenity pruning AS4373. Additionally, a tree safety management plan has been developed by Ausgrid. This plan outlines Ausgrid's legal obligations to ensure safety and reliability of its network and reflects Part 5 of the Electricity Supply (Safety and Network Management) Regulation 2014, under the Electricity Supply Act 1995.

The vegetation management conducted by Ausgrid and the impact it has on local streets and visual amenity is a known community issue. Ausgrid receives many enquiries and complaints about the need for vegetation management and the extent of tree trimming that is completed. In 2014/15, Ausgrid recorded an increase in customer complaints related to vegetation management around power assets, and a recorded decrease in satisfaction with the work overall and the appearances of trimmed trees.

In response to the data received in 2014/15 as well as the release of Ausgrid's Community Engagement Policy, Ausgrid engaged Aurecon to undertake a comprehensive stakeholder and community engagement program.

The vegetation management engagement program aimed to understand community interests, develop a shared understanding of the need for vegetation management and help to improve the way Ausgrid performs this maintenance in the future.

Between September and November 2015, feedback was sought from key stakeholders, such as local councils, local members of state parliament and community groups, about Ausgrid's vegetation management program and practices. The engagement program included a range of open engagement activities to reach a wide range of the community including an online survey, local 'pop up' engagement activities as well as digital engagement and social media.

1.1   Purpose of this report

This report summarises the feedback collected from stakeholders and the community as a result of the engagement program implemented from September to November 2015. It provides a detailed record of the activities undertaken as part of the program as well as an aggregated summary of the feedback collected.

This data has then been analysed by expert community engagement professionals to provide a series of key findings specifically related to stakeholder and community concerns and their perceptions about Ausgrid vegetation management. Based on these key findings a series of recommendations have been developed to enhance Ausgrid's communication and engagement with stakeholder's and communities. This would provide an improved level of customer and stakeholder satisfaction.

The key objectives of this report are to:

- Provide a record of the engagement activities and aggregated summary of feedback collected from stakeholders and the communities.

- Summarise key areas of concerns and opportunity identified by stakeholders and the community as a result of the feedback provided.

- Outline improvements and recommendations that could enhance Ausgrid's communication and engagement around vegetation management practice.

1.2   Approach to analysis

The data collected through the engagement program was analysed by community engagement professionals in the communication and stakeholder engagement team at Aurecon. Much of the data collected was quantitative and was analysed based on the calculated outcomes of this data. The qualitative data collected was analysed through a content analysis to identify trends and themes that were raised by more than one stakeholder. This data is summarised in this report for each of the engagement activities.

Based on this data, key findings were developed through the identification of commonly raised issues, trends and themes. The data provided insights offered by stakeholders and communities, as observed by community engagement professionals through interviews and interactions.

In response to the key findings, recommendations have been developed that could enhance Ausgrid's communication and engagement to support vegetation management practice. These recommendations are aimed to increase understanding and knowledge of tree trimming and improve customer and stakeholder satisfaction.

All recommendations relate to the way in which Ausgrid engages with stakeholders, informs and engages the community and incorporates stakeholder and community views as part of their vegetation management practice. Some of these recommendations are strategic in nature and will require further consideration by Ausgrid for a review or change of existing processes and policies.

1.3   Limitations

The scope of the engagement program was limited to vegetation management by Ausgrid to establish an understanding of stakeholder and community perceptions, concerns, views and preferences for possible areas of improvement it was evident from the discussions with both stakeholders and the communities that there are a number of technical concerns in regards to vegetation management. As Aurecon are not experts in vegetation management around power assets, no technical recommendations have been made. This information has been provided to Ausgrid.

1.4   About Aurecon

Aurecon is a leading engineering and project delivery firm. We work in close partnership with key infrastructure clients in the public and private sectors, providing community engagement, construction communication and stakeholder management, alongside technical engineering, strategic and commercial advice.

The Aurecon communication and stakeholder engagement team has extensive and directly relevant experience in the electricity and infrastructure industries. Our clients and projects include Ausgrid, TransGrid, SP AusNET (AusNet Services), Energy2U Alliance, Novo Rail Alliance, Power Supply Upgrade Program, Digital Train Radio System Upgrade and the National Broadband Network. As such, we have an extensive understanding of the electricity industry and developing appropriate community engagement programs for asset replacement and augmentation, demand management, electromagnetic energy (EME and EMF) and smart metering.

2   Engagement Approach

The engagement approach developed for the vegetation management engagement program aimed to build awareness of the issue while gathering feedback to help inform recommendations for Ausgrid's ongoing communication and engagement. The strategy was based on the Ausgrid Community Engagement Handbook and Community Engagement Policy and aimed to deliver best practice through accessible, transparent and influential engagement.

The engagement objectives were to:

1. Understand the community's interests and views about vegetation management, and how they can be incorporated in future decision making wherever possible, including the balance between aesthetics, safety and cost to the consumer.
2. Provide an opportunity for community members with an interest in tree trimming to 'have a say'.
3. Improve the community's understanding of tree trimming around powerlines.
4. Establish a solid baseline level of engagement with the community on this issue.
5. Demonstrate Ausgrid commitment to community engagement and responsiveness to concerns raised.

The approach looked to established open channels of communication and provided various means of collecting feedback from a range of stakeholders.
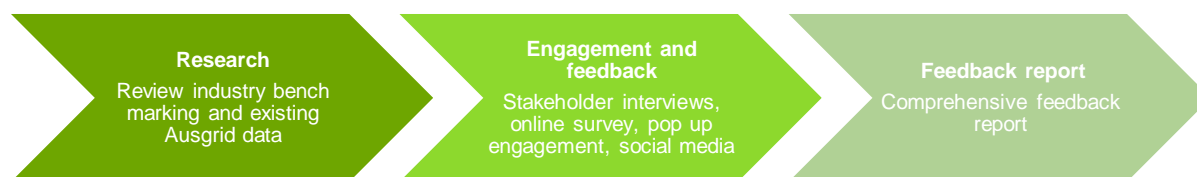
Research	Engagement and feedback	Feedback report
Review industry bench marking and existing Ausgrid data	Stakeholder interviews, online survey, pop up engagement, social media	Comprehensive feedback report

Figure 1: Community engagement strategy

2.1   Engagement activities

The engagement activities as part of the program are outlined below.

Engagement activity	Objective
Industry benchmarking	A desktop review was conducted to establish an understanding of industry trends around communication and engagement for vegetation management. This focussed on reviewing publically available documentation from organisations similar to Ausgrid.
Online survey	The online survey was the key mechanism for feedback from the general public and stakeholders. The survey was aimed at understanding concerns, opportunities and interests in Ausgrid's vegetation management program. It was open for six weeks and promoted through various media.

Stakeholder interviews	Key stakeholders within the target local councils areas were invited to take part in an in person or telephone interview. This provided the opportunity for feedback about concerns, opportunities and interests in vegetation management. The interviews were structured and based on a set series of questions about process, values and areas of improvement.
Pop-up engagement	A series of pop up engagement activities were held in specific areas across the Ausgrid network. The pop-ups were designed to provide an opportunity for people who would not usually provide feedback or complete a survey. They provided opportunities to create public awareness and encourage engagement on the topic of vegetation management. These locations were selected as they were in areas where there was known community concerns about tree trimming.
Social media	Ausgrid's existing social media channels were used to raise awareness of the engagement program, as well as to promote and share the online survey. This included Facebook and Twitter.
Supporting communication material	Communication material was developed to support the engagement program. This included: - Website content - Graphics/ images - Letters
Designated email address	A dedicated email address was established to provide a direct means of communication from stakeholders and members of the public.

2.2   Representative approach

As a result of Ausgrid's expansive network it was proposed to undertake targeted engagement with a representative sample of stakeholders in a selection of local council areas. This aimed to establish an understanding of community interests relating to vegetation management and inform the development of ongoing communication and engagement.

Representative engagement means locating a sample of the community rather than aiming to reach the entire geographical area. When considering a suitable area for engagement the criterion includes:

- Within Ausgrid network.
- Municipality that previously engaged with Ausgrid.
- Reports of notable feedback, positive or negative, that indicates a level of engagement on the issue of vegetation management.
- Has been or will be subject to vegetation maintenance in the next three to six months.

While the targeted local councils were the focus of the engagement efforts, all stakeholders were invited to have their say and no stakeholder was precluded from participating.

3 Feedback and data analysis

3.1 Industry benchmarking

A desktop assessment was undertaken to gain an understanding of industry communication and engagement practices specific to tree trimming. This included a search of online and publically available information that was designed to inform, engage and educate stakeholders and the community about tree trimming. The desktop search was limited to the electricity sector including transmission and distribution providers.

A summary of trends identified from similar Australian organisations is outlined below. These learnings were considered when developing recommendations for improvements.

Organisation	Communication	Engagement
SP AusNet	Notice in writing or via advertising in the local media ahead of tree maintenance activity at least 14 days ahead of activity (no more than 60 days ahead of activity)	Vegetation Management Plan includes: Communication with stakeholders using various materials such as brochures on the tree trimming process, planting and pruning around powerlines and what's involved in accessing private property. Website includes a guide to planting near electricity lines and lists appropriate species for areas in the network.
Western Power	Notices are written and hand delivered to the letterbox at the time of the inspection of trees. Notices are printed on carbon paper - the original copy is given to the occupier and Western Power retain the traced copy.	Engagement with local council includes providing a factsheet about the process of tree trimming.
SA Power Networks	Councils, landowners and occupiers are usually notified in advance about general vegetation management works in their area, or on or next to their properties.	Engagement includes: printable materials, such as factsheets, infographics and posters that explain the reasons for tree trimming.
Endeavour Energy	Councils, landowners and occupiers will normally be notified in advance about general vegetation management works in their area, or on/next to their properties.	Endeavour Energy have created an engagement plan to better understand the needs of their stakeholders. As part of this, Endeavour Energy conducted a survey to develop a robust model of customers' willingness to pay for electricity network services. The main takeaways from this survey was that Endeavour Energy customers were not

		willing sacrifice reliability and safety for lower charges. Vegetation management was considered the least important service.
Essential Energy	Except in the case of an emergency, Essential Energy will liaise with and notify the landowner/occupier impacted about upcoming work.	Essential Energy have a "Plan Before You Plant" campaign designed to encourage stakeholders to think about the electricity network prior to planting a tree. http://www.essentialenergy.com.au/content/tree-management Vegetation Management Plan 24 June 2014 available online – with periodic review with an opportunity for stakeholders to comment including: - Direct consultation with Councils and Regional Advisory Groups (who represent the local communities) and other identified community groups. - Written notice to the relevant Essential Energy customers. - Publication in a local newspaper as well as being placed on exhibition with the relevant Local Councils.

3.2   Stakeholder interviews

Key stakeholders within the target local councils were invited to take part in face-to-face and telephone interviews. Invitation were issued to 43 stakeholder including local councils, community and interest groups, government agencies and local members of parliament. A total of 13 interviews were conducted with representatives from the targeted regions.

Interviews were conducted with the following stakeholders.

Stakeholder	Date
City of Sydney Council	21 October 2015
Member for Sydney Alex Greenwich MP	9 October 2015
Paddington Society	27 October 2015
Centennial Park Residents Association	23 October 2015
Sutherland Shire Council	9 October 2015
Member for Summer Hill Joanna Haylen MP	13 October 2015
Warringah Council	20 October 2015
Newcastle City Council	29 October 2015

Member for Newcastle Tim Crakanthorp MP	12 October 2015
Newcastle Resident/ Activist	29 October 2015
Islington Community Group	30 October 2015
Marrickville Council	6 October 2015
Ku-ring-gai Council	28 October 2015

These interviews provided the opportunity for these stakeholders to provide in-depth feedback and were aimed at understanding concerns, opportunities and interests related to Ausgrid tree trimming. The interviews were based on a series of questions about process, values and improvements. Key feedback trends from these interviews are outlined below.

Categories	Key feedback trends
Process	- The quality of contractors was raised as a concern by several stakeholders. They indicated there was inadequate training and qualifications required and there was limited evidence of any involvement of suitably qualified and experienced arborists in the planning, trimming and post auditing process. - Specifications used to guide tree trimming were challenged. This included the ISSC3 that was described as being inconsistent, contradictory and a root cause of poor quality maintenance. - Ausgrid was considered to have a standard 'one size fits all' clearance approach that is used across the network, rather than a specific approach that considers the tree types, sizes and streetscapes. - Most stakeholders referenced a lack of communication and notification to residents directly impacted by tree trimming, including private property owners who had trees on their property requiring trimming by Ausgrid. - Concerns were raised about the transparency of decision making and consideration by Ausgrid to assess alternative options such as cable bundling, tree removals and replanting or alternative trimming approaches. - Some stakeholders expressed concerns about inconsistent issues resolution and escalation processes. In some areas it was recognised as a strength and in other areas it was a major concern for stakeholders, particularly local councils. - Ausgrid was perceived by stakeholders as having a disregard for trees as an asset and lacking concern for the disruption caused by their tree trimming to tree health, community and council planning.

Stakeholder values	- Visual amenity and impact on local streets was a key value for the majority of stakeholders. It was clear that trees should be considered an extension of a community's identity and should be treated with respect and care. - There was acknowledgement for the need to maintain safe clearance around powerlines and to ensure public safety, some kind of maintenance was needed. - There was an expressed desire from the majority of stakeholders to collaborate with Ausgrid to collectively resolve sensitive issues or problem areas such as heritage trees, specific streets or parks. - Stakeholders want to see greater transparency about decision making, costs and alternatives. Ausgrid should be considering all options and broadening their thinking to consider the whole picture.
Improvements	- Greater collaboration to resolve specific issues or problem areas and to develop plans for specific or sensitive areas to achieve mutually beneficial outcomes. - Shift decision making and planning to see the whole picture rather than the trees and powerlines in isolation. - Ausgrid should explore alternative solutions such as partnerships/programs to remove/ replant trees. - Use existing local council communication channels as part of the notification and education process to local community and residents. - Consider reintroducing a program of cable bundling or offering alternative solutions. - Review and improve communication particularly with directly impacted residents about tree trimming. - Provide more information about tree trimming to educate the community about why, how and what other options are there (including costs and benefits). - Develop more consistent engagement processes with local councils to align planning and maintenance with the shared goal of achieving a better outcome for the community.

3.3   Social and traditional media

Media was used to raise awareness about the engagement program and specific activities. The social media platforms Facebook and Twitter were used to promote the online survey and pop-up engagement sessions. There was very limited social media engagement through Ausgrid's generated content however media coverage was recorded through newspapers and online outlets.

Content released	Recorded coverage/ interactions
Media Release 1: COMMUNITY ASKED TO HELP SHAPE TREE TRIMMING PLANS Published 17 September 2015	Media stories: Daily Telegraph (17/9) Maitland Mercury (17/9)
Twitter Post: We want to hear your views on tree trimming. Here's our plan to do that. Visit http://ausgridcom.au/yoursayontrees	Comment: 0 Retweet: 1 Like: 0

Facebook Post: We want to hear your views on tree trimming. Here's our plan to do that. For more information, go to <u>ausgrid.com.au/yoursayontrees</u>	Shares: 0 Likes: 3 Comments: 2
Twitter post: We need your feedback on how we trim trees around powerlines and poles - find out more at http://ausgrid.com.au/yoursayontrees	Comment: 0 Retweet: 1 Like: 2
Facebook Post: We're asking for your feedback on how we trim trees around powerlines and poles. Find out more at ausgrid.com.au/yoursayontrees	Shares: 1 Likes: 2 Comments: 1
Twitter Post: Keep trees on your property away from live wires to help prevent bushfires & blackouts ausgrid.com.au/yoursayontrees	Comment: 0 Retweet: 5 Like: 2
Media release: AUSGRID LAUNCHES COMMUNITY SURVEY ON TREE TRIMMING Published: 20 October 2015	ABC Newcastle x4 mentions (21/10) Newcastle Herald (22/10) Maitland Mercury (22/10) Newcastle Herald (23/10) 2HD Newcastle (23/10) Newcastle Herald (24/10)
Facebook Post: We want your views on how we trim trees to keep the public and our staff safe and prevent blackouts.	Shares: 33 Likes: 81 Comments: 48
Facebook Post: Trees too close to powerlines can be a serious bushfire risk - that's why we need to cut branches growing inside the minimum safety clearance. Take our survey to tell us what you think about how we trim trees.	Shares: 3 Likes: 1 Comments: 2
Facebook Post: Ausgrid trims trees to keep the community and our staff safe and maintain a reliable power supply to our customers. Share your views on our vegetation management program at <u>www.surveymonkey.com/r/ausgridtreetrimming</u>	Shares: 1 Likes: 6 Comments: 0
Facebook Post: Crews are trimming trees in parts of Nelson Bay, Wollombi and Bucketty areas this week. Complete the survey to tell us what you think about our tree trimming program.	Shares: 0 Likes: 0 Comments: 0
Facebook Post: Got a tree growing under powerlines on your property? It needs to be kept a safe distance from live wires. Find out more at <u>www.ausgrid.com.au/yoursayontrees</u>	Shares: 2 Likes: 5 Comments: 2
Twitter post: Talk to us about tree trimming in @cityofsydney tomorrow at the Waterloo Green neighbourhood BBQ from 5-8pm	Comment: 0 Retweet: 1 Like: 0

https://whatson.cityofsydney.nsw.gov.au/events/good-neighbourhood-bbq-waterloo …	
Facebook Post: Pop in to see us and share your views about tree trimming in person at the City of Sydney's Neighbourhood BBQ at Waterloo Green this Wednesday 18 November from 5-8pm. For more information about our community engagement go to www.ausgrid.com.au/yoursayontrees	Shares: 0 Likes: 1 Comments: 0
Facebook Post: Visit us at Wheeler Place, Newcastle tomorrow 10am – 2pm to tell us your ideas about trees, trimming and powerlines or Trevallion Plaza, Marrickville on Friday, 10am – 2pm. Can't make it? Tell us what you think with this survey, which closes Friday.	Shares: 0 Likes: 0 Comments: 1
Twitter Post: Talk to us about tree trimming today at Trevallion Plaza, Marrickville from 10am-2pm or at http://www.surveymonkey.com/r/ausgridtreetrimming … - survey ends today	Comment: 0 Retweet: 1 Like: 0

3.4 Online survey

An online survey was used as a key mechanism for communities and stakeholders to provide feedback on Ausgrid's vegetation management program. Specifically, it was aimed at gaining an understanding of the concerns, opportunities and interests of the wider community. To promote the online survey, 74 were emails were issued to community members and stakeholders, and almost 1,200 people completed the survey during the four week period. The following key points were highlighted in the below tables:

– Awareness of Ausgrid's tree trimming program.

– Communities' feelings towards tree trimming.

– Examples and stories from communities about Ausgrid's tree trimming.

– Most important factors.

– Cost of tree trimming passed onto customers.

– Vegetation management strategies.

Are you aware that Ausgrid undertakes tree trimming in local streets to ensure the safety and reliability of electricity for homes and businesses?		
Answer options	**Response Percent**	**Response Count**
Yes	98.1%	1160
No	1.9%	22

Conclusion: Based on the data 98.1% of respondents said they were aware that trees were trimmed in local streets for safety and reliability of electricity. This indicates that all respondents understand that tree trimming is required around power assets in local communities.

Which of the following options best describes you?		
Answer options	**Response Percent**	**Response Count**
A tree on my property is trimmed by Ausgrid	13.6%	161
A tree at the front of my home or business is trimmed by Ausgrid	33.8%	400
Trees in my street are trimmed by Ausgrid	56.9%	673
Trees in my local area are trimmed by Ausgrid	54.8%	648
None of the above	2.3%	27
Other	5.1%	60

Conclusion: Based on the data 56.9% and 54.8% of respondents indicated trees were either trimmed in their street or local area. 33.8% said trees were trimmed in front of their home or business, and 13.6% were trimmed on their property. This data indicates that a high percentage of all stakeholders are directly impacted from tree trimming within close proximity of their home or business.

How do you feel about Ausgrid's tree trimming in your local area?		
Answer options	**Response Percent**	**Response Count**
Very satisfied	3.2%	38
Satisfied	6.3%	74
Neutral	9.1%	107
Unsatisfied	29.5%	349
Very unsatisfied	51.9%	614

Conclusion: Based on the data, 51.9% of respondents indicated they were very unsatisfied, 29.5% unsatisfied compared to 6.3% who were satisfied and 3.2% very satisfied, therefore more than 81% of respondents viewed Ausgrid's tree trimming negatively.

What is it about the tree trimming that makes you feel this way?		
Answer options	**Response Percent**	**Response Count**
The look of the trees	76.1%	900
The amount trimmed from the trees	50.6%	598
Clippings left on the nature strip or footpath	11.1%	131
Safety of the trees	28.8%	340
Health of the trees	38.1%	450
How often the trees are trimmed	13.5%	160
Safety of the powerlines or power poles	15.1%	178
Other	20.2%	239

Conclusion: Based on the data, 76.1% of respondents indicated they were unsatisfied with the tree trimming in their local area due to the look of the trees afterwards, and 50.6% were unsatisfied with the amount trimmed from trees in general. Furthermore, 38.1% of respondents were unsatisfied due to the health impacts to trees, and 28.8% said it was the safety of the trees. These results further highlight that Ausgrid's tree trimming is perceived negatively from local communities and stakeholders as outlined in the previous question (81%). The look of trees and the amount trimmed is the primary concern from all survey respondents. Survey respondents were also asked to provide other comments in this question. Below are some of the responses from all 1,182 participants that completed the survey.

- The trees get cut away from the powerlines on one side leaving the other side to lean.
- Disfiguration of trees.
- Butchering and vandalisation of trees.
- Quality of the tree trimming.
- Types of trees planted by councils.
- Environmental impacts.
- Effect on bird habitat and wildlife.
- Poor communication from Ausgrid about tree trimming.

When thinking about your electricity and tree trimming, what is most important to you? Please rate the following in order of importance to you (1 = most important to 5 = least important). You can only select each number once.					
Answer options	1	2	3	4	5
Price of electricity	20.05%	12.10%	19.12%	10.15%	38.58%
Reliability of power to homes and business	25.80%	31.81%	17.26%	20.05%	5.08%
Safety of the electricity assets and the community	25.55%	21.40%	28.00%	15.31%	9.73%
The look of the trees and local streets	15.40%	17.09%	18.78%	29.61%	19.12%
Health of the trees	13.20%	17.60%	16.84%	24.87%	27.50%
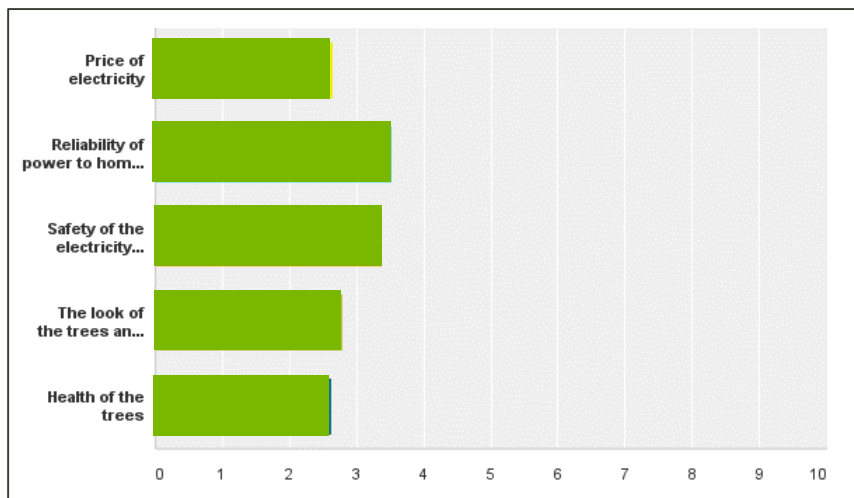
Conclusion: The graph and table above indicates that overall, all five options were considered of similar value by respondents. With only a small statistical difference between the options, the combinations selected by respondents do not indicate clear preferences. Based on the data, reliability and safety were more frequently selected as preference 1, 2 or 3. The look and health of the trees were fairly evenly considered. The price of electricity could be considered as the least valued factor.

The cost of tree trimming by Ausgrid for safety is passed onto customers through their electricity bills. Would you be willing to pay more for your electricity if a different approach was used that also focused on how the trees look?		
Answer options	**Response Percent**	**Response Count**
Yes	42.2%	499
No	53.6%	633

Conclusion: Based on the data, 42.2% of respondents said they would be willing to consider paying more for electricity for better tree trimming outcomes, compared to 53.6% who said no. That is a margin of 11.4%, therefore indicating that a high percentage of customers may be willing to pay more. This indicates that the community places a high value on the look of their local streets and the impact of Ausgrid tree trimming. Survey respondents were asked if they would be willing to pay more for their electricity if a different approach was used for tree trimming. This produced a diverse range of comments, such as, passing the cost on to local councils; dollar values and percentages customers would be willing to pay; and Ausgrid should absorb the cost out of their annual profits.

If Ausgrid could use different strategies to manage trees and powerlines, which ones would be acceptable to you?		
Answer options	**Response Percent**	**Response Count**
Replacement - Partner with councils to remove inappropriate species and replant small trees	54.4%	643
Growth reduction - a treatment can be applied to the exterior of tree to reduce the rate at which they grow	17.8%	210
Clearance establishment - undertaking large amounts of trimming to establish required distances to 'train' trees to grow away from powerlines	22.3%	263
Less trimming, more often - visiting your area more frequency but performing less trimming	29.5%	349
Partnership with council - working with council to plan and undertake tree trimming	48.6%	575
Other (please specify)	37.1%	438

Conclusion: Based on the data, 54.4% of respondents indicated that replacement of inappropriate species was the most favourable option. 48.6% indicated that Ausgrid should work with councils to better plan and undertake tree trimming and 29.5% said less trimming, but performed more frequently. Survey respondents were also asked to provide other comments in this question. Below are some of their responses.

- Put powerlines underground.

- Plant appropriate native trees.

- Employ professional arborists to assess the safety of trees before, during and after trimming.

- Explore aerial bundling, relocation of power poles and underground powerlines in streets with high asset trees.
- Partnership with local community and council.
- Better training for tree trimming contractors.

How would you like to receive ongoing information from Ausgrid about the annual tree trimming program?		
Answer options	Response Percent	Response Count
Ausgrid website	23.8%	281
Information in letterbox	30.9%	365
Newspaper	15.6%	184
Council newsletter	27.9%	330
Social media	26.8%	317
I don't need more information	22.9%	271
Other (please specify)	7.4%	88
answered question		**1182**

Conclusion: Based on the data, 30.9% of respondents advised they would prefer information via a direct letterbox drop, followed by 27.9% through local council newsletter. This provides a strong indication that customers expect Ausgrid and local councils to work as a partnership. 26.8% would prefer to be notified via social media platforms.

Overall, how would you rate this survey		
Answer options	Response Percent	Response Count
Excellent	6.35%	74
Very good	28.50%	332
Fairly good	41.03%	478
Mildly good	18.11%	211
Not good at all	6.01%	70

Conclusion: Based on the data, the majority of respondents felt the survey was 'fairly good' or better. This suggests the survey was a positive experience and respondents felt they were provided the opportunity for feedback.

Open responses

Survey respondents were also asked to share examples or provide further comments around their feelings towards Ausgrid's tree trimming, and to also provide overall feedback. Some points raised were excessive trimming, aesthetics of the trees, health, placing cables underground, unsuitable tree species, better training for contractors and working in partnership with Councils.

Is there an example or story you would like to share about why you feel this way about Ausgrid's tree trimming?

More than 700 responses were recorded for this question with the majority of them negative stories where Ausgrid had a negative impact on the person or community. Below is a summary of the comments received.

- "Lack of regard for structure of the trees, heavy pruning that does not reflect the actual risk associated with trees being pruned with some instances of clearances to within 1.8m stumps from the ground."

- "There needs to be more thought about the impact the pruning will have on the trees shape in maturity."

- "They seem clueless when trimming, leaving heavy branches dangling over properties which may lead to trees splitting and landing on houses. Get proper arborists to shape the trees."

- "The trimming leaves the trees looking lopsided, as well as depriving birds of much needed habitat. Looking around Newtown and Marrickville some trees are pruned very hard, while others are done more sensitively. This variation suggests that too much of the process relies on the skill level of the crew, rather than adequate training across the whole group."

- "Not only were the trees over-trimmed, but the notice that Ausgrid was going to trim was put in my letter box one afternoon and when I got home from work the next day the trees already been trimmed, not allowing me any time to make any arrangements or be on hand for the trimming."

- "I have seen trees with the middle taken out and the tree looks deformed and about to fall over."

- "I would call it trimming so much as hacking the middle of trees. They look ridiculous and we have had international visitors comment how awful this looks."

- "The tree on the nature strip outside my house was trimmed a few weeks ago and it has been absolutely butchered. It was only just recovering from the last time it was trimmed. I was so upset when I saw it. Large branches had been unnecessarily cut and it looks horrible. I contacted the council but they said it is Ausgrid's responsibility. There used to be lots of birds in that tree but they have all left. It is the same all-round the neighbourhood. The trees look just terrible."

Is there any other feedback you would like to provide to Ausgrid about tree trimming?

This was not a compulsory question but 600 respondents elected to provide further feedback. Below is a summary of the comments received.

- "Current regime has to change, amenity must be taken into consideration on a more balanced approach. As4373 is not considered appropriate for the utilities industry."

- 'Sometimes it is done well and sometimes you butcher the tree which suggests your contractors have different levels of skill and training."

- "It's great you have started action. Please see it to an agreeable resolution."

- "This problem was mainly created by Councils that planted inappropriate trees under powerlines, which now require trimming."

- "Spend the money and put all powerlines underground. It might be costly initially but a lot of money would be saved in the long run not having to tree trim."

- "So pleased that you have provided the opportunity for the community to respond to Ausgrid tree trimming. I still feel that this is a debate about cost of electricity versus the scourge of trees that cause problems. Truth is, I could probably survive without electricity (maybe uncomfortably), but I could not survive without trees."

- "The present strategy just leaves the trees looking demented, if trees and powerlines have to co-exist, then the trees need to be kept totally below the powerlines."

- "Understand it needs to be done but due to inappropriate species being planted, the resulting trimming can make trees look lopsided and unsightly. Really think there should be more onus on local councils to remove and plant appropriate species."

Summary

- 74 survey links were emailed to community members and stakeholders.

- Approximately 1,200 people completed the survey during the four week period.

- 98.1% of respondents were aware that trees were trimmed in local streets for safety and reliability.

- 56.9% and 54.8% of respondents indicated trees were either trimmed in their street or local area.

- 51.9% of respondents indicated they were very unsatisfied with tree trimming in their local area.

- 42.2% of respondents said they would be willing to consider paying more for electricity for better tree trimming outcomes.

- 54.4% of respondents indicated that replacement of inappropriate species was the most favourable option.

- 48.6% respondents indicated that Ausgrid should work with councils to better plan and undertake tree trimming.

- 30.9% of respondents advised they would prefer information via a direct letterbox drop.

3.5 Pop up engagement

The aim of this activity was to undertake bespoke community engagement to obtain feedback from local communities and stakeholders within a pop-up environment. Pop-ups are used to change the nature and feel of a public space. They provide opportunities to surprise people, stimulate imagination and create public awareness amongst communities who are not directly involved in the physical activity. Pop-up engagement sessions were held in Waterloo, Ramsgate, Elizabeth Bay and Marrickville to obtain 'on the spot' feedback from local communities (Figures 2 & 3). These locations were selected as they were in areas where there was known community concerns regarding tree trimming. A pop-up session was also planned for Newcastle, however, it was cancelled due to weather conditions.

Figure 2: Pop-up set up

Figure 3: Pop-up interaction

The engagement sessions investigated:

1. Community opinions around tree trimming.
2. Community willingness to pay for better aesthetic outcomes.
3. Providing more information about tree trimming in general.

The pop-up incorporated a combination of written responses and visualisations enabled through situated digital technologies.

Engagement activities

Adapting the questions from the online survey, three questions were selected for the pop-up sessions. The interactive activities included a paper survey tree, selfie survey app and interactive tree game. Participants could answer the three questions by either filling out the paper leaf and placing it on the tree (Figure 4), or using a customised selfie app to answer the questions by taking a selfie in front of the yes/no on the alternative tree (Figure 5). Using augmented reality participants also had the option to play with an interactive tree game (Figures 6 & 7). This showed a visualisation of a virtual powerline and a virtual tree that would catch on fire if it was too close to the powerline. The objective was to provide a fun and interactive space where people could speak to representatives, provide feedback and play a game. Based on the data collected, 150 people participated at the four pop-up sessions with a total participation rate of 35%. The following table shows the number of participants and participation rate at each of the sessions.

Location	Venue	Participants	Participation Rate
Waterloo	City of Sydney Community BBQ	15	60%
Ramsgate	Organic Foodies Market	60	27%
Elizabeth Bay	City of Sydney Community BBQ	50	46%
Marrickville	Public Plaza	21	35%

Considering the impromptu nature of the pop-up engagement sessions and limited advertising, the participation rate for each session was high. The feedback received from the pop-up engagement has reflected responses similar to the online survey, and has significantly contributed to the overall engagement process through enabling people to submit their response on the spot.
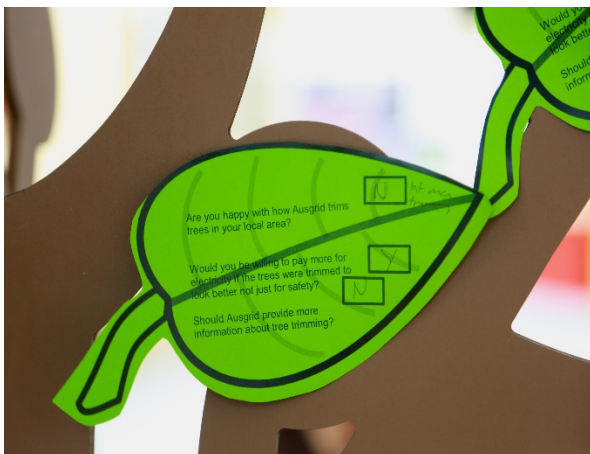

Figure 4: Paper survey

Figure 5: Selfie survey app

Figure 6: Interactive tree game

Engagement results

The following three survey questions were used at each pop-up engagement session:

Are you happy with how Ausgrid trims trees in your local area?				
Location	**Yes**	**%**	**No**	**%**
Waterloo	11	92%	1	8%
Ramsgate	14	33%	28	67%
Elizabeth Bay	28	80%	7	20%
Marrickville	7	39%	11	61%
	60	**56%**	**47**	**44%**

Conclusion: Based on the data, 56% of participants from all pop-up session advised they were happy with tree trimming in their local area, compared to 44% who said they were not happy. This result is significantly higher than the respondents of the online survey where 3.2% where happy and 51.9% unhappy. This result could likely be based on the fact that the online survey captured the entire Ausgrid network compared to the situated locations of the pop-up.

Would you be willing to pay more for electricity if the trees were trimmed to look better not just for safety?				
Location	**Yes**	**%**	**No**	**%**
Waterloo	4	36%	7	64%
Ramsgate	17	40%	25	60%
Elizabeth Bay	14	42%	19	58%
Marrickville	10	56%	8	44%
	45	**43%**	**59**	**57%**

Conclusion: Based on the data, 43% of participants across all pop-up sessions would be willing to pay more for their electricity for better tree trimming outcomes. This is comparable to the result of 42.2% from the online survey,

including the open responses people provided indicating dollar values and percentages they would be willing to pay.

Should Ausgrid provide more information about tree trimming?				
Location	Yes	%	No	%
Waterloo	8	89%	1	11%
Ramsgate	29	69%	13	31%
Elizabeth Bay	24	73%	9	27%
Marrickville	11	61%	7	39%
	72	**71%**	**30**	**29%**

Conclusion: Based on the data, 71% of participants advised that they would like more information in general about tree trimming specific to their local area. From interaction with participants it was evident that there was a preference for notifications and information.

Summary

The results of the pop-up engagement sessions showed:

- Community engagement questions from all sessions produced valid responses in regards to tree trimming in local communities.

- 56% of participants were happy with tree trimming in their local area.

- 43% of participants would be willing to pay more for their electricity for better tree trimming outcomes.

- 71% of participants advised that they would like more information about tree trimming.

- All participants expressed positive feedback to the pop-up engagement activities.

- 33% of people participated during the four sessions.

- The sessions raised awareness of the Ausgrid engagement process.

- Pop-ups encouraged discussion around vegetation management.

- Greater cross-sections of the community participated.

- Pop-up sessions allowed participants to submit their responses on the spot.

4 Key findings

The key findings provide a summary of the main feedback trends and themes identified through the data collected from the engagement program. In response to the key findings, recommendations have been developed that could enhance Ausgrid's communication and engagement to support tree trimming (vegetation management) practice. These recommendations are aimed to increase understanding and knowledge of tree trimming and improve customer and stakeholder satisfaction.

All recommendations relate to the way in which Ausgrid engages with stakeholders, informs and engages the community and incorporates stakeholder and community views as part of their tree trimming (vegetation management) practice.

Tree trimming is a community issue and area of interest and one that Ausgrid should dedicate additional effort and resources to improve.

Based on the level of feedback it has been concluded that tree trimming is an area of concern for communities and stakeholders and an area that Ausgrid should invest in to improve. Based on the 1,200 respondents of the online survey and the 150 participants at the pop-up engagement sessions, it was demonstrated that the general public are aware of Ausgrid's responsibilities, and therefore the impact their maintenance operation has on health of trees and visual amenity. Generally it can be considered that there is a low satisfaction and acceptance of the current practices. This is supported by the stakeholder feedback received.

Stakeholders have expressed concerns about the quality of documentation including guidelines and processes that inform Ausgrid tree trimming.

Based on the feedback collected from stakeholder interviews, primarily from local councils, there is a strong concern about the current documentation and guidelines that inform tree trimming. Concerns were raised about;

- The consistency of detail with the ISSC3.

- The training and qualification requirements for contractors.

- Application of Ausgrid's legal obligations as outlined in the Part 5 of the Electricity Supply (Safety and Network Management) Regulation 2014, under the Electricity Supply Act 1995.

- Interpretation of Australian Standards by Ausgrid and individual contractors.

- Application of bushfire standards across the network even in areas that are not bushfire prone.

Stakeholders and the community have expressed that the impacts (visual and health) of tree trimming should be the centre of the decision making process not just the need to achieve a minimum safety clearance.

Based on the language used by both stakeholders and the communities, the primary concern is the look and health of the trees. Highly emotive language and terms such as 'butchering', 'vandalising' and 'poor workmanship' are frequently used throughout the feedback to describe Ausgrid's practice. A significant number of survey respondents indicated that bird and wildlife habitat was negatively impacted and was of great concern to them. It appears that the visual and physical result of tree trimming generally creates a

perception that Ausgrid lacks concerns for the community and the value of trees. There is strong evidence encouraging Ausgrid to consider the trees they trim equal if not more important than powerlines when planning their maintenance.

Communicating decision making and considering alternative options

Stakeholder and communities have expressed that Ausgrid should be more open in considering alternatives and more transparent in communicating outcomes. Alternative options such as underground powerlines in areas where trees are considered of high values, removal of unsafe trees as a result of excessive trimming, removal and replacement of inappropriate species and aerial cabling bundling were frequently raised during the overall engagement process. It was observed that the public considered Ausgrid's tree trimming as the default option to provide the required clearances without consideration of the best community outcome.

The community expressed they want to be kept informed and consulted regarding decisions about tree trimming.

Based on the data from the online survey and from the pop up engagement it was evident that the community would like more information about Ausgrid tree trimming. Including general information regarding processes and procedures as well as notification of when work is occurring. This could be achieved through a variety of physical and digital media.

The community believes that partnerships between Ausgrid and local councils would deliver better outcomes.

When the community were asked about alternative solutions, the data suggests a strong preference for partnerships with local councils. This is evident through the online survey data as well as interactions with the community during the pop up engagement sessions. Partnerships and collaboration between Ausgrid and local councils is also a highly regarded outcome from stakeholders. It is clear that there are perceived benefits to collaborate between the responsible asset owners in achieving better outcomes.

Consumers involved in this engagement have expressed a potential willingness to pay more for electricity if it results in better outcomes.

Electrical prices and cost were included in the online and pop-up surveys to ascertain community receptiveness to increased electricity prices as a result of any changes to tree trimming practices. More than 40% of survey respondents and 43% of pop up participants indicated a willingness to pay for electricity if better outcomes were achieved by the tree trimming. Ausgrid has an opportunity to further explore this with stakeholders and communities.

Ausgrid's engagement with local councils across its network has been inconsistent and there is evidence that in some locations there are very poor relationships with stakeholders and communities as a result of tree trimming.

It was evident from the stakeholder interviews that the level and quality of engagement with local council varied substantially across the Ausgrid network. There was a clear link between the quality of the engagement with local councils and the perceived performance and reputation of Ausgrid.

In areas where there were positive engagement there was generally more collaborative issues management. There was also evidence that in areas where there was a breakdown in the relationship, engagement was limited to written correspondence and there were minimal examples of collaboration.

Stakeholders and the community have a limited understanding of how Ausgrid operates.

Based on the information shared through the stakeholder interviews as well as interactions through the pop up engagement it is evident that there is limited knowledge of how Ausgrid operates. This understanding is linked to stakeholder and community expectation of Ausgrid. There was very limited awareness of the Australian Energy Regulator (AER) and how they have a role to place in Ausgrid funding allocation and decision making.

5   Recommendations

The engagement program focussed on understanding stakeholder and community concerns and perceptions about Ausgrid vegetation management. The recommendations outlined below have been developed based on trends identified through the various forms of feedback with the intent to improve Ausgrid reputation in the community, relationships with stakeholders and to raise awareness of the complex nature of powerline maintenance.

The recommendations are intended to deliver beneficial outcomes for both Ausgrid and stakeholders specifically related to Ausgrid's vegetation management.

Develop a dedicated vegetation management engagement program

Develop a dedicated program to engage all stakeholders in regards to vegetation management. This would aim to increase awareness of Ausgrid and vegetation management, as well as proactively understand issues and concerns. This would establish Ausgrid's commitment to, and processes for, the facilitation of ongoing engagement and relationship building with local councils.

Establish a vegetation management notification process

In line with current industry practices a targeted notification process would proactively inform impacted stakeholders about future vegetation management in local communities. This would include a minimum notification period where residents would be informed prior to any tree trimming being undertaken in their local street. The process would also enable stakeholders and communities to provide feedback on the service. This could provide an opportunity to collaborate with local communities and Councils to ensure that specific issues and preferences are considered.

Engage stakeholders in a review

To ensure Ausgrid understands and meets all stakeholders' expectations, it should review existing guidelines and documentation to incorporate and reflect stakeholder's views. By undertaking a review stakeholders would be provided with the opportunity to be involved. This would specifically target local councils, industry experts and community groups through further engagement such as workshops, a working group or survey.

Review accessibility of information

Conduct a review of information available to the public regarding tree trimming with the view of developing improvements to increase accessibility and transparency. This would include existing website, social media and digital content as well as printed material.

Develop a framework to assess alternative vegetation management proposals

Develop a framework to assess the costs and benefits of proposals for tree trimming alternatives such as remove and replant programs or aerial cabling bundling. This provides guidelines for local councils when developing proposals to Ausgrid and considering alternatives. A comprehensive process for considering alternatives would increase the transparency of decision making and enhance the relationship between Ausgrid and local councils. Once completed the framework should be made available through physical and digital media so communities and stakeholders are aware of the choice of tree species and why.

Establish a service charter

Involve contractors in the development of a vegetation management service charter that outlines how stakeholders and communities will be informed, consulted and involved. This would ensure consistency across the Ausgrid network and outline what stakeholders can expect from contractors and Ausgrid. The charter would include information about clearance requirements, trimming frequency and practice, as well as a commitment to notify residents and work with local councils.

Implement an awareness campaign

Based on the findings, it is recommended that Ausgrid undertake an awareness campaign to target all stakeholders and consumers regarding the importance of vegetation management. This could include how Ausgrid is provided with funding and the relevance of the AER. The awareness campaign could utilise existing Ausgrid communication channels and publications as well as exploring other engagement methods through physical and digital media similar to those adopted in this engagement program.

aurecon