



Consultation Summary Report

Alexandria to Kingsford Cable Replacement Project

January 2023

Consultation Summary Report – Alexandria to Kingsford Cable Replacement Project

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1 Purpose of this report

This report provides a summary of the community and stakeholder communications and consultation undertaken during the planning and environmental assessment stages of the Alexandria to Kingsford Cable Replacement Project.

This report includes a summary of the consultation activities and the feedback received at community information sessions as well as via phone calls, emails and stakeholder meetings. All feedback received has been considered by Ausgrid in developing this project.

1.1 Project overview and scope

Ausgrid is replacing an existing fluid-filled underground 132kV sub-transmission cable between Transgrid's substation in Burrows Road, Alexandria and Ausgrid's substation in Anderson Street, Kingsford. The existing cable is more than 45 years old and is nearing the end of its serviceable life. Ausgrid is proposing to replace the existing cable with a new underground cable. This project is part of a program to retire fluid-filled cables across our network.

Pending project approval, construction work is expected to start in early-2023 and will take approximately 12 months to complete. This schedule is dependent on favourable weather and ground conditions, as well as securing necessary power outages, resource availability and other factors.

2 Overview of consultation to date

2.1 Early engagement

Ausgrid adopted an early communication and consultation approach for the project by seeking to involve the community and key stakeholders during the development and detailed planning stages.

Ausgrid's approach has been to undertake a route options investigation and based on the findings, nominate a preferred route, and then seek community feedback. This feedback is then factored into Ausgrid's decisions on the final project plans. Ausgrid seeks to balance community feedback with other project considerations such as technical and cost-related factors to finalise the route and construction program.

Ausgrid has undertaken a range of activities to ensure stakeholders and community members are aware of the proposed activities and have had an opportunity to provide feedback on the project.

Engagement activities undertaken to date include:

- Engaging with local Members of Parliament in the areas where the new cable could be laid. This includes the State Member for Heffron, the Hon. Ron Hoenig MP, and the State Member for Kingsford Smith, the Hon. Matt Thistlethwaite MP.
- Engaging with the City of Sydney Council, Randwick Council and Bayside Council on the plans for the proposed cable route and its community impacts.
- An initial project newsletter was delivered to approximately 3,635 properties along and around the preferred cable route in February 2022. This newsletter provided contact details to answer questions or provide feedback on the project. A copy of this newsletter can be found in Appendix A.
- Interested community members were invited to attend one of two online community information sessions (February and March 2022) directly through the project newsletter. This was an opportunity for the community to find out more about the project, provide feedback on the preferred cable route and speak with the project team.

- A detailed presentation focusing on the project needs, planning to date and the construction process was shared with the community members who attended the online information sessions. A copy of the presentation can be found in Appendix D.
- An FAQ document was created based on the questions asked during the online information session and circulated to attendees after the session. Attendees and interested community members who were unable to attend were also provided with an opportunity to 'opt-in' to project updates via email. A copy of the FAQ document can be found in Appendix E.
- Offering to visit community members who were unable to attend the online information sessions or people who required more information following the sessions.
- Site investigation notifications were delivered to properties near work locations along the preferred cable route in June 2022. A copy of this notification can be found in Appendix F.
- The REF was publicly exhibited on Ausgrid's website from 9th September to 10th October 2022. All feedback is being considered prior to the project being assessed for approval.
- Three project update newsletters were distributed to the community and uploaded to the project webpage in February, September and December 2022. Copies of these newsletters can be found in Appendices A, B and C

3 REF exhibition

The following activities are part of the Review of Environmental Factors (REF) exhibition:

- The REF was placed on display for public comment from September 2022 to October 2022 via the project webpage.
- There were ongoing conversations with the community and stakeholders inviting comments and submissions during the REF exhibition period by:
 - Delivering approximately 3,653 project update newsletters to the community along and around the preferred cable route through a letterbox drop. The newsletter contains information about the REF exhibition period and its location. A copy of the newsletter can be found on the project [website](#) as an Appendix to the REF.
 - Emailing information about the REF to key stakeholders, including:
 - The Hon. Matt Thistlethwaite MP and the Hon. Ron Hoenig MP
 - The City of Sydney Council, Randwick Council and Bayside Council
 - Transport for NSW
 - State Transit Authority (Sydney Buses)
 - Land and Housing Corporation (LAHC)
 - Bicycle NSW, BIKE Sydney and the Eastern Suburbs Cycling Club.
- A toll-free 1800 information phone line and a project email address were made available for people wanting more information on the proposal, to ask questions or to raise issues.
- A dedicated project information page on our website is also available with information on the project and the REF process.
- There were no submissions received for the Alexandria to Kingsford Cable Replacement Project REF.

4 Community and stakeholder feedback during early consultation

This section contains a summary of the feedback received from the community and key stakeholders throughout the planning stages of the project.

Feedback was received by the project team at the online community information sessions and via phone calls, emails and meetings with the project team before and after the information sessions.

The feedback received has been grouped into areas of interest and/or concern and is summarised in categories. In the interest of privacy, the names and personal contact details of those that have provided feedback have not been presented.

Ausgrid considers that this report adequately responds to and addresses the issues raised in the feedback and submissions received during the redevelopment and environmental assessment stages of the project.

4.1 Project need

Area of interest	Question	Response/Key Messages
Project justification	Why is the project needed?	<p>TransGrid's substation in Burrows Road, Alexandria to Ausgrid's substation in Anderson Street, Kingsford are connected by a 132,000 volt Self-Contained Fluid-Filled (SCFF) underground cable that is nearing the end of its serviceable life.</p> <p>Ausgrid is planning to replace the existing cable by installing a new 132,000 volt underground cable and spare conduits (plastic pipes) for a future second.</p> <p>The project is part of a program to retire fluid filled cables across the Ausgrid network to minimise the environmental risks associated with cable fluid leaks.</p>
Existing cables	Why can't we just fix the existing cables?	<p>The fluid-filled cables have high maintenance costs, higher failure rates, extended repair times and require special jointing. Failure of these cables can lead to leaks which have the potential to cause environmental damage.</p> <p>Ausgrid is working to a timetable agreed with the Environmental Protection Agency (EPA) to progressively remove SCFF cables from Ausgrid's network.</p>
New cables	What is the preferred route for the new cables?	<p>Ausgrid is proposing to install the new 132,000 cable and spare conduits between TransGrid's substation in Burrows Road, Alexandria and Ausgrid's substation in Anderson Street, Kingsford.</p>

		<p>The new cables would be installed in existing conduits (plastic pipes) that run from Burrows Road towards Gardeners Road, via Campbell and Bourke Road, Alexandria. From Gardeners Road, the route would then turn North onto Ellis Road and Birmingham Street, then towards the east along Gillespie Road and Harcourt Parade.</p> <p>At the eastern end of Harcourt Parade, the cables would continue through the Southern Cross Drive Reserve, then through existing easements in the Australian Golf Course. From there, the route would follow Tunstall Avenue, Tresidder Avenue, Cottenham Avenue and Borrodale Road.</p> <p>The cable route would then proceed through Bruce Street, Solandar Road, Colenso Crescent, Colonel Braund Crescent, and into Ausgrid's Kingsford substation on Anderson Street.</p>
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4.2 Construction – Installing the new cables

Area of interest	Question	Response/Key Messages
Overall process	How would the new cables be installed?	The new cable conduit would be installed using open trenching. There will also be associated work at various locations along the route to construct underground 'joint bays' and pits to pull through and join sections of cable.
	Will you put the cables in the road or footpath?	132,000 volt cables are generally installed beneath the roadway.
Work hours	What would the work hours be?	Ausgrid's standard work hours are 7 am to 6 pm Monday to Friday, and 8 am to 1 pm on Saturdays.
Out of hours work	Would there be any work at night?	Yes. Some work would need to be done outside of normal work hours, including night work in certain locations to minimise the daytime impact on traffic, businesses and the general community. Ausgrid would contact affected stakeholders in advance.
Timeframe	How long will work take outside my home?	Trenching, conduit installation and backfilling generally proceeds at a rate of 20-30 meters a day, depending on ground conditions and/or the presence of other underground services. The presence of rock substrate can slow progress.
Construction impacts Driveway access Trees Safety	How would the work impact the community along the route?	<p>Ausgrid is committed to minimising the impact of its activities on local communities and the environment.</p> <p>There would be some temporary changes to traffic and parking arrangements along the preferred cable route. Ausgrid would work closely with Councils and Roads and Maritime Services (RMS) to minimise our impact on the local road network.</p> <p>A detailed Traffic Management Plan will be prepared in consultation with Council, RMS and other key stakeholders.</p>

		<p>Ausgrid has prepared an environmental assessment to determine the potential impacts of the project. The assessment outlines the required measures to mitigate any impacts.</p> <p>All work would be completed in line with the environmental assessment, the project's Construction Environmental Management Plan and Ausgrid's environmental management policies.</p>
	What will the work site look like?	A typical work site encompasses several vehicles including an excavator, a truck to remove the spoil and other trucks containing equipment and crews. On-site personnel including work crews and traffic control staff would also be present. Traffic conditions would also be changed temporarily.
	How will you manage traffic around the project and its impact on local schools, emergency services, etc?	<p>It is expected that there will be some temporary changes to traffic and parking arrangements along the preferred cable route. Ausgrid will work closely with Councils, Transport for NSW (TfNSW), State Transit and emergency services to minimise our impact on the local road network and the community. This includes items such as:</p> <ul style="list-style-type: none"> - preparing a detailed Traffic Management Plan in consultation with key the stakeholders; - issuing local construction notifications between 4 and 14 clear business days before works begin; and - having traffic crews on-site daily to safely guide pedestrians and vehicles around the construction activities. <p>To reduce the potential impact on schools, during past projects of this type, Ausgrid has contacted schools along cable routes to confirm their term timetable and then scheduled construction works near the school during holiday periods. Ausgrid intends to discuss this with impacted schools along the preferred route.</p>
	Will I be able to get my car out of the driveway while you are working in my street?	<p>Yes. Access to properties would be maintained throughout the project unless we have made prior arrangements with you. If crews are working directly in front of your property, they will work with you to help you exit as quickly and safely as possible.</p> <p>Generally, steel plates are placed over the trench to allow cars to drive over the trench – this can take around five to ten minutes to organise depending on the work being undertaken.</p> <p>Traffic controllers will be on-site to ensure you can safely enter the road/street.</p>
	Will this project affect neighbouring properties as well with traffic, noise or other? Will traffic be rediverted temporarily and will night work be involved?	<p>As with any construction work, there will be some temporary impacts for residents and businesses on or near the cable route. This may include noise, traffic, and temporary parking disruptions. We will make every effort to keep these impacts to a minimum.</p> <p>It is expected that there will be some temporary changes to traffic and parking arrangements along the preferred cable route. Ausgrid will work closely with Councils and TfNSW to minimise our impact on the local road network and the community. This includes preparing a detailed Traffic Management</p>

		<p>Plan in consultation with Council, TfNSW and other key stakeholders.</p> <p>This project may require work to be done outside of standard construction hours, including night work to minimise the impact on traffic, businesses, and the general community during the day. Ausgrid will contact affected stakeholders in advance.</p> <p>We will provide the community with more details on these activities once they become available.</p>
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4.3 Decommissioning and restoration

Area of interest	Question	Response/Key Messages
Process – decommissioning	When would the existing 132,000 volt cable be decommissioned and what would that involve?	<p>The existing 132,000 volt cable between the substations in Alexandria and Kingsford would be decommissioned once the new cable has been installed and commissioned.</p> <p>The decommissioning process would involve excavation work at three joint locations pits along the existing cable route to purge the fluid from the cables using water. Once purged, Ausgrid will seal the cable ends and leave them in the ground.</p>
Process – restoration	What areas does Ausgrid restore?	Ausgrid is obliged by legislation to make good areas disturbed by the installation of electrical infrastructure. All affected areas, including roads and grass verges, will be restored to as close to their previous condition as possible.
	What is the restoration process?	<p>Restoration typically involves two stages:</p> <ul style="list-style-type: none"> - Excavated sections of the road will be progressively backfilled and temporarily resurfaced to allow normal use by traffic. <p>Once all cables have been installed and tested, permanent resurfacing will be done in consultation with the relevant authority.</p>
Coordination with Council	How will Ausgrid work with Council to avoid digging up roads that they have, or plan to, resurface?	<p>Ausgrid commenced discussions with the City of Sydney Council and Randwick City Council about the project and our preferred cable route in mid-late 2021.</p> <p>These meetings will continue throughout all stages of the project to keep council updated on our plans and to coordinate works where possible to try to minimise having to excavate after any council road restoration.</p>

4.4 Electric and Magnetic fields (EMF)

Area of interest	Question	Response/Key Messages
General	What is Ausgrid's position on EMF?	Ausgrid recognises that the issue of EMF is of great interest to some members of the community. Safety is Ausgrid's highest priority. The preferred route for the Alexandria to Kingsford Cable Project has been planned on the basis that the new 132,000 volt underground cables can and will be operated safely in the community. This is Ausgrid's first and most important consideration.
	What are electric and magnetic fields?	<p>When electrical equipment is in use, electric and magnetic fields (EMF) are produced. You will find EMF in and around most households and workplaces from sources such as appliances, building wiring, office equipment and the local electricity network (including overhead power lines or underground cables).</p> <p>When talking about EMF and whether there are any health concerns, people are generally referring to magnetic fields.</p>
Health Impacts	What are the health impacts associated with EMF?	<p>It is well accepted by scientists that no study considered in isolation will provide a meaningful answer to the question of whether EMF can contribute to adverse health effects. To make an informed conclusion from all the research, it is necessary to consider the science in its totality.</p> <p>Research on EMF and possible health effects has been conducted for over 44 years. This includes over 2,900 studies at a cost of more than \$490 million. All the research is extensively reviewed by Australian and international inquiries and expert panels which were established for trying to determine whether human exposure to EMF is related to adverse health effects.</p> <p>Ausgrid is guided by the Australian Government agency ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) about health and EMF. ARPANSA (as part of the Health and Ageing Portfolio) is a Federal Government body responsible for protecting the health and safety of people, and the environment, from EMF. ARPANSA advises that:</p> <p><i>"The scientific evidence does not establish that exposure to Extremely Low Frequency (ELF) EMF found around the home, the office or near powerlines and other electrical sources are a hazard to human health.</i></p> <p><i>There is no established evidence that the exposure to magnetic fields from powerlines, substations, transformers or other electrical sources, regardless of the proximity, causes any health effects."</i></p>

		<p>In 2010, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) issued exposure guidelines for established health effects. The public exposure limit in these guidelines is 2,000mG. ARPANSA advise that “<i>The ICNIRP EMF guidelines are consistent with ARPANSA’s understanding of the scientific basis for the protection of people from exposure to EMF</i>”.</p> <p>In 2011, the International Agency for Research on Cancer (IARC) classified power frequency magnetic fields as 'possibly carcinogenic'. IARC advises that the term 'possibly' has no quantitative significance and is used simply as a descriptor. This descriptor applies where there is limited human evidence, a lack of evidence in animals and no biological explanation. There are currently 275 agents listed as 'possibly carcinogenic', including warm beverages.</p> <p>Ausgrid relies on these reviews and the advice of authoritative health agencies rather than the results of any study or non-authoritative report.</p> <p>The World Health Organization (WHO) advises that: “Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low-level electromagnetic fields.”</p>
Project specific	<p>Will the project in any way increase the level of EMF emitted by the substations in Burrows Road and Anderson Street?</p>	<p>No, the project would not be augmenting the primary equipment at the substations, so the EMF levels would remain the same as they currently are.</p> <p>Other response: Ausgrid will prepare an environmental assessment known as Review of Environmental Factors (or REF), as part of this assessment, project specific EMF modelling will be undertaken.</p> <p>The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the Australian Government authority responsible for setting the exposure limits for magnetic fields. In line with multiple other countries, ARPANSA has adopted the International Commission on Non-ionising Radiation Protection (ICNIRP), which recommended public exposure limit of 2,000mG.</p> <p>It is expected that the EMF produced by the cable will be a small fraction of the 2,000mG public exposure limit.</p> <p>The REF including the EMF modelling will be publicly exhibited for three weeks to allow the community to review and provide feedback.</p>

More information	How can I find out more about EMF and the Alexandria to Kingsford cable project?	A specialist EMF assessment will be prepared for the project. This can be found in the REF.

4.5 Community engagement

Area of interest	Question	Response/Key Messages
Project development	How has Ausgrid engaged with the key stakeholders and community to date?	<p>Ausgrid has sought to involve key stakeholders, such as the City of Sydney Council, Randwick City Council and Bayside Council (Council) and the community early in this project so we can use local feedback as part of the planning process and minimise impacts during construction.</p> <p>Ausgrid started engagement with stakeholders, such as Council in late 2021 to obtain feedback on the preferred cable route. Engagement with residents and businesses along and around the preferred cable route started in early February 2022 when the first project newsletter was distributed. This included conducting two community information webinars. (Due to Covid restrictions in place at this time)</p> <p>Ausgrid will continue to engage with key stakeholders and the community throughout the project.</p>
Construction	How will Ausgrid engage with the community during construction?	<p>Ausgrid will continue to engage with the community and key stakeholders during all stages of its projects. This process includes delivering newsletters to residents and businesses to provide project updates and notifications about the start of construction work and door knocking and/or meeting with impacted neighbours.</p> <p>Ausgrid welcomes questions or comments about the project at any time. Community feedback assists us to identify potential issues and address them in our construction plans to minimise impacts.</p>
	How much notice would residents receive before construction starts?	Ausgrid generally provides four clear business days' notice before any work begins in an area. This is in addition to the progressive information provided during project planning.

5 Next steps

Subject to planning approval, detailed design work could start in early 2023. Construction would start in early to mid-2023 and be completed by late 2024.

If the project proceeds into detailed design and construction, Ausgrid and its contractors would continue to engage with the community and key stakeholders and provide:

- A dedicated community liaison officer who would work closely with construction personnel to ensure the community is informed about upcoming works and potential impacts, and to address any construction related issues as quickly as possible.
- A 24 hour community information line, project email address and web page.
- Signage along the route to ensure community members are aware of who is carrying out the work. Signage would include details of the project community information line.
- Notifications to residents and other neighbours before the start of work in their area to provide information about the proposed construction activities, timing, work hours and traffic and parking arrangements, as well as details of how to find out more information or raise any issues with the project team.
- Door knocking and face-to face meetings as required to provide impacted residents and businesses with detailed information about construction work and potential impacts.

6 Appendix

6.1 Appendix A – Alexandria to Kingsford Cable Project Newsletter, February 2022



New cables in your area

Ausgrid is seeking input from the community as we plan a new cable route between TransGrid's substation in Burrows Road, Alexandria and Ausgrid's substation in Anderson Street, Kingsford.

These substations are connected by an existing fluid-filled underground 132kV sub-transmission cable that is approximately 40 years old and is nearing the end of its serviceable life. We are proposing to replace the existing cable with a new underground cable. This project is part of a program to retire fluid-filled cables across our network.

Planning cable routes

There are a range of factors to consider when planning cable routes. These include:

- public health and safety;
- environmental and social impacts;
- traffic considerations;
- technical feasibility;
- available space around existing underground utility services; and
- cost (minimising impact on your electricity bills).

Preferred cable route

We are proposing to install the new cable under the road between Alexandria and Kingsford. A map of the preferred route for the new cable is over the page. Starting from the TransGrid substation, the new cables would be installed in existing conduits (plastic pipes) that run from Burrows Road towards Gardeners Road, via Campbell and Bourke Road, Alexandria. From Gardeners Road, the route would then turn north onto Ellis Road and Birmingham Street, then towards the east along Gillespie Road and Harcourt Parade.

At the eastern end of Harcourt Parade, the cables would continue through the Southern Cross Drive Reserve, then through existing easements in the Australian Golf Course. From there, the route would follow Tunstall Avenue, Tresidder Avenue, Cottenham Avenue and Borrodale Road.

The cable route would then proceed through Bruce Street, Solandar Road, Colenso Crescent, Colonel Braund Crescent, and into Ausgrid's Kingsford substation on Anderson Street.

Community Involvement

We are seeking feedback from the community so we can use local knowledge as part of the planning process. The project team will be hosting two live information webinars for the local community to find out more about the project, provide feedback on the preferred cable route and ask questions.

The project team will give a short presentation on why the project is needed, how the preferred route was prepared and what to expect during construction.

To register for an upcoming community information webinar, please scan the attached QR code below to complete our registration survey.

If you are unable to attend the live webinar session, a recording of the presentation will also be included on the project website at www.ausgrid.com.au/alexandria-kingsford. Alternatively, if you wish to discuss the project, please contact our team.

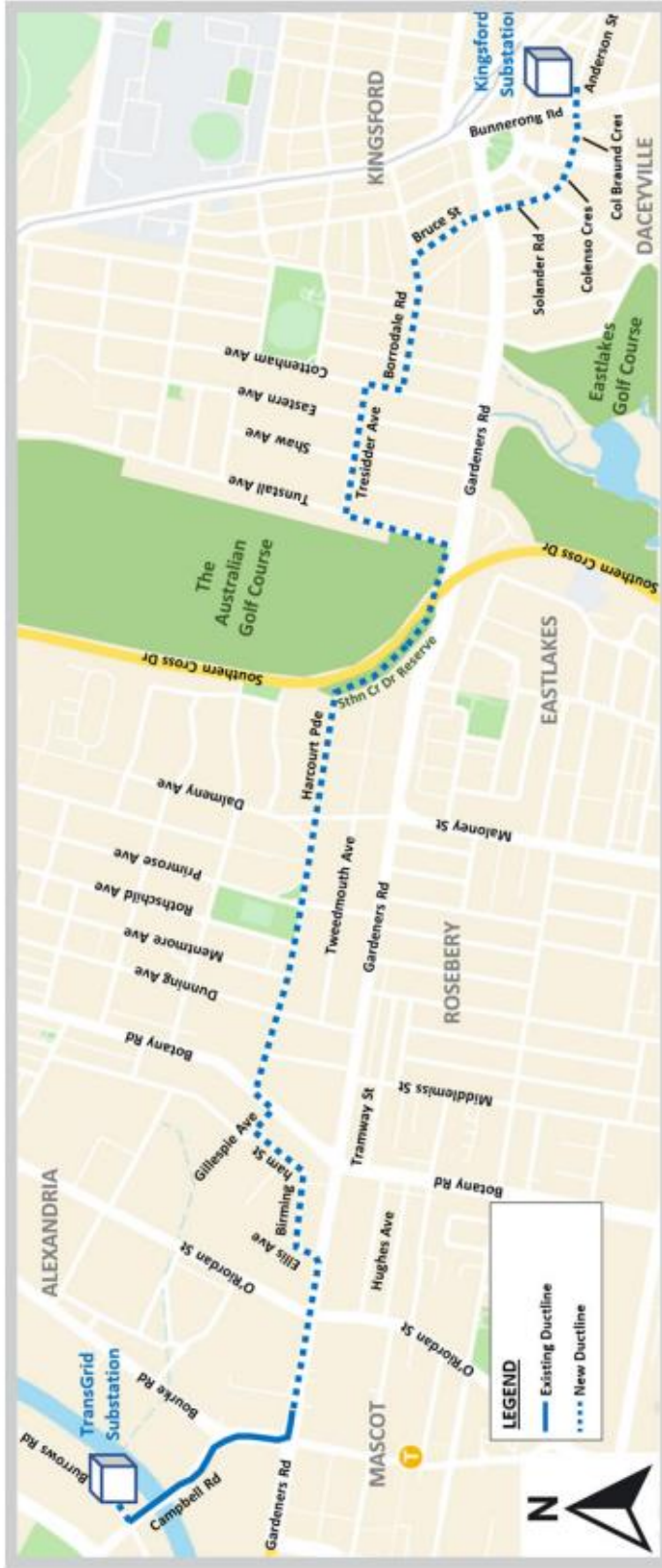
Webinar Registration



Project Webpage



Preferred cable route



Key dates

- Mid 2021 - February 2022**
 - Investigating route options and obtaining community and stakeholder feedback
- February 2022 - May 2022**
 - Feedback used by Ausgrid to refine construction plans. Site investigations
- May 2022**
 - Review of Environmental Factors (REF) on public display
- Mid - Late 2022**
 - Project approved for detailed design and construction, contractor appointed, and construction program prepared
- Late 2022 to Early 2023**
 - Detailed design and start of construction
- Mid - Late 2023**
 - Installing cables and connect new cable to the existing network
- 2024**
 - Retire existing cables

Project assessment and approval

Ausgrid is the approving authority for the work under the *NSW Environmental Planning & Assessment Act*.

As part of the approval process, we will be preparing an environmental assessment known as a Review of Environmental Factors (REF) to determine the potential environmental impacts of the project.

The REF will be placed on exhibition at several locations (including online) and the community will be invited to make submissions.

The community along the preferred cable route will receive a newsletter in the next few months with further details about this process.

Following the REF exhibition, Ausgrid will review all submissions and prepare a summary report. The project will then be determined for approval based on the information contained in the REF.

Next steps

The timeline on the left provides an overview of the project and community engagement stages. After considering and addressing feedback from the community and further planning, Ausgrid will conduct ground investigations along the preferred cable route to pinpoint existing utility services. Once this is finished, we will refine the cable route as required for environmental assessment.

Keeping you informed

Ausgrid will keep the community informed as the project progresses via updates like this one and notification letters. The latest project information will also be available on the project's web page (see below). There will also be an opportunity to make a submission on the environmental assessment.



Cable installation on a similar project

Contacting us

You are welcome to contact us with any enquiries:

Call 1800 604 765 (free call from fixed phones)

Email majorprojects@ausgrid.com.au

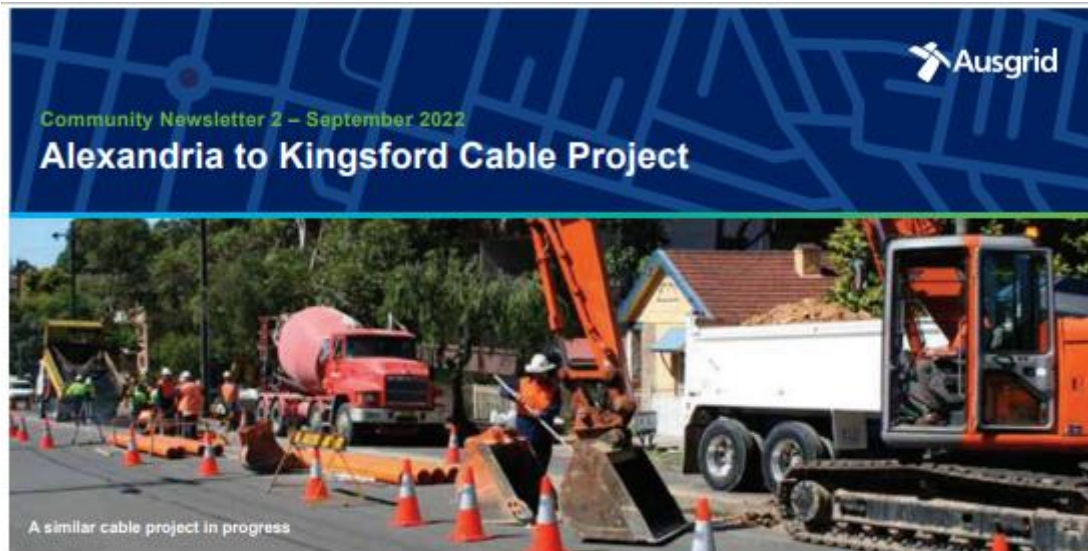
Visit ausgrid.com.au/alexandria-kingsford



Interpreter service 131 450



6.2 Appendix B – Alexandria to Kingsford Cable Project Newsletter, September 2022



The cable project

Ausgrid is progressing with plans to install a new 132kV underground electricity cable between Transgrid's substation in Burrows Road, Alexandria and Ausgrid's substation in Anderson Street, Kingsford.

These substations are connected by an existing fluid-filled cable that is more than 40 years old and is nearing the end of its serviceable life.

You have received this newsletter because you live or work near the proposed cable route or one of the substations shown on the map overleaf.

Project so far

As you may be aware, we have carried out investigation work along the preferred cable route to locate existing underground utility services and assess ground conditions.

We have used our findings from this to identify suitable locations beneath roads for the new cable and to inform the environmental assessment.

Environmental assessment

Under the *Environmental Planning and Assessment Act 1979*, Ausgrid is the determining authority for this project. As part of this process, an environmental assessment (known as a Review of Environmental Factors, or REF) has been prepared to assess the potential environmental impacts associated with the installation, operation, and maintenance of the new cable.

Have your say

The REF is on exhibition until 10 October 2022. You may view it on our webpage at ausgrid.com.au/alexandria-kingsford.

All feedback will be considered prior to the project being assessed for approval.

Community feedback

Since our last newsletter, we have continued liaising with the community and key stakeholders about the project, including seeking feedback on the preferred cable route and construction process.

Thank you to those who provided feedback. This has helped inform the planning approvals process. Feedback can be viewed within the REF.

Detailed information about the construction, operation and maintenance of the new cables along with measures to mitigate potential impacts are also included in the REF.

Next steps

Following the REF exhibition period, Ausgrid will review and consider all submissions. A summary report will be prepared and published on the project's webpage. Pending this review, the project will be determined for approval.

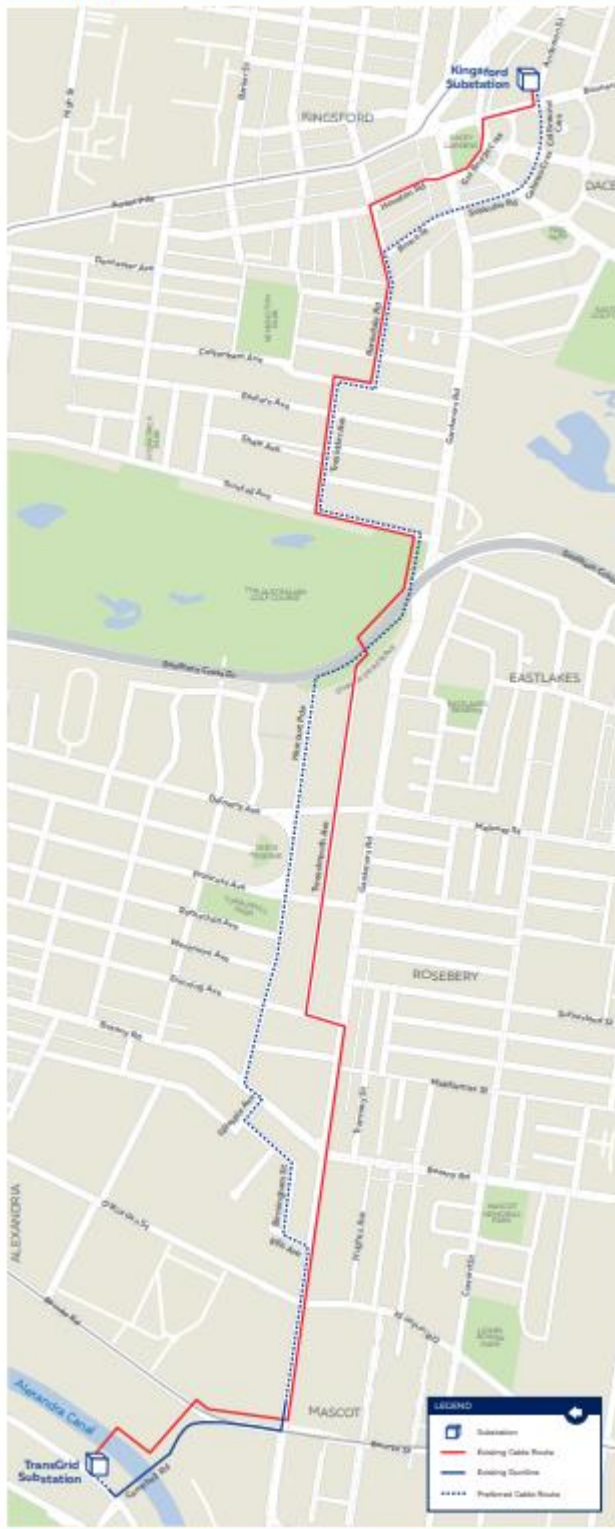
Subject to determination, construction is proposed to start in early 2023 and take up to 12 months to complete.

Keeping you informed

Properties along the preferred cable route will receive further updates as the project progresses. This will include details on what to expect during construction. The latest project information will also be available on the project webpage.

If you would like to receive project updates via email, please 'opt-in' by sending an email with your details to majorprojects@ausgrid.com.au with the subject title 'Alexandria to Kingsford Cable Project'.

Preferred route



Project timeline

The timeline provides an overview of the project and community engagement stages.

Key dates

- **Mid 2021 – February 2022**
 Investigating route options and obtaining community and stakeholder feedback
- **February 2022 – August 2022**
 Feedback used by Ausgrid to refine construction plans. Site investigations
- **September - October 2022**
 Review of Environmental Factors (REF) on public display
- **Late 2022**
 Project approved for detailed design and construction, contractor appointed, and construction program prepared
- **Early 2023**
 Detailed design and start of construction
- **Mid - Late 2023**
 Installing cables and connect new cable to the existing network
- **2024**
 Retire existing cables

We are here!

Contacting us

You are welcome to contact us with any enquiries:

Call 1800 604 765 (free call from fixed phones)

Email majorprojects@ausgrid.com.au

Visit ausgrid.com.au/alexandria-kingsford

Interpreter service 131 450



6.3 Appendix C – Alexandria to Kingsford Cable Project Newsletter, January 2023



Project update

Ausgrid has finalised its plans to lay new 132kV underground electricity cables between Transgrid's substation in Burrows Road, Alexandria and Ausgrid's substation in Anderson Street, Kingsford.

These substations are connected by an existing fluid-filled cable which is more than 40 years old and need to be replaced to maintain a safe and reliable power supply to customers.

Our contractors LSJDGJV will start construction activities in early 2023. This will involve trenching to install the new cables in the road and will continue for about twelve months.

Further information about what to expect during construction is over the page with a map of the cable route on the back page.

Project assessment and approval

Ausgrid is the approving authority for the work under the *NSW Environmental Planning & Assessment Act 1979*.

As part of the approval process, we conducted an environmental assessment, known as a Review of Environmental Factors (REF) to investigate the potential environmental impacts associated with the project and identifying mitigation measures.

The final REF will be made available on the project web page (ausgrid.com.au/alexandria-kingsford) prior to construction.

Community feedback

In finalising the project, Ausgrid has taken feedback received from the community and key stakeholders into consideration.

The REF for this project was on public exhibition for comment from 9 September to 10 October 2022.

Ausgrid received no submissions during the REF exhibition period. However, the REF addresses feedback received in earlier consultation sessions, where the main areas of community interest were route selection and construction impacts.

A report summarising all the feedback received from the community and key stakeholders during the development of the project will be available in the final REF when it is published in early 2023.

Working with you

We are committed to working closely with the community to minimise disruption where possible.

Your questions and comments about the project are welcome at any time to help us and our contractor manage the construction work effectively.

Work will be done progressively along the route, which means it may be some time before we begin in your area. You will receive a letter approximately one week before work begins near you, including information about how you might be impacted.

We apologise in advance for any inconvenience caused by this project, and we thank you for your understanding and patience.

What to expect during construction

Below is a summary of the type of activities that can be expected during this project.

Site investigations

Our contractors LSJGJV will undertake site investigations along the cable route before trenching starts to assess ground conditions and locate existing underground utility services. This will help confirm the final position of the new cables and conduits in the road and the location of associated pits.

Trenching and laying conduits (plastic pipes)

The most common activity will be digging approximately 1.3 metre wide trenches in roads and laying conduits to accommodate the new cables, this may be wider when crossing over or under existing underground services. There will be a number of crews doing this work at multiple locations along the cable route.

Typically, trenching, and temporary restoration takes about a few days outside each property, depending on the ground and weather conditions.

Joint bays and other associated pits

Underground joint bays and hauling pits will be excavated along the route. These will be used to pull through and joint sections of cable together.

Joint bay will be about 2 metres wide and 10 metres long and cable hauling pits are smaller. These will be excavated in preparation for cable installation.

Joint bays will be in place for 2-4 months to allow for cable jointing. While the hauling pits will be backfilled following cable installation.

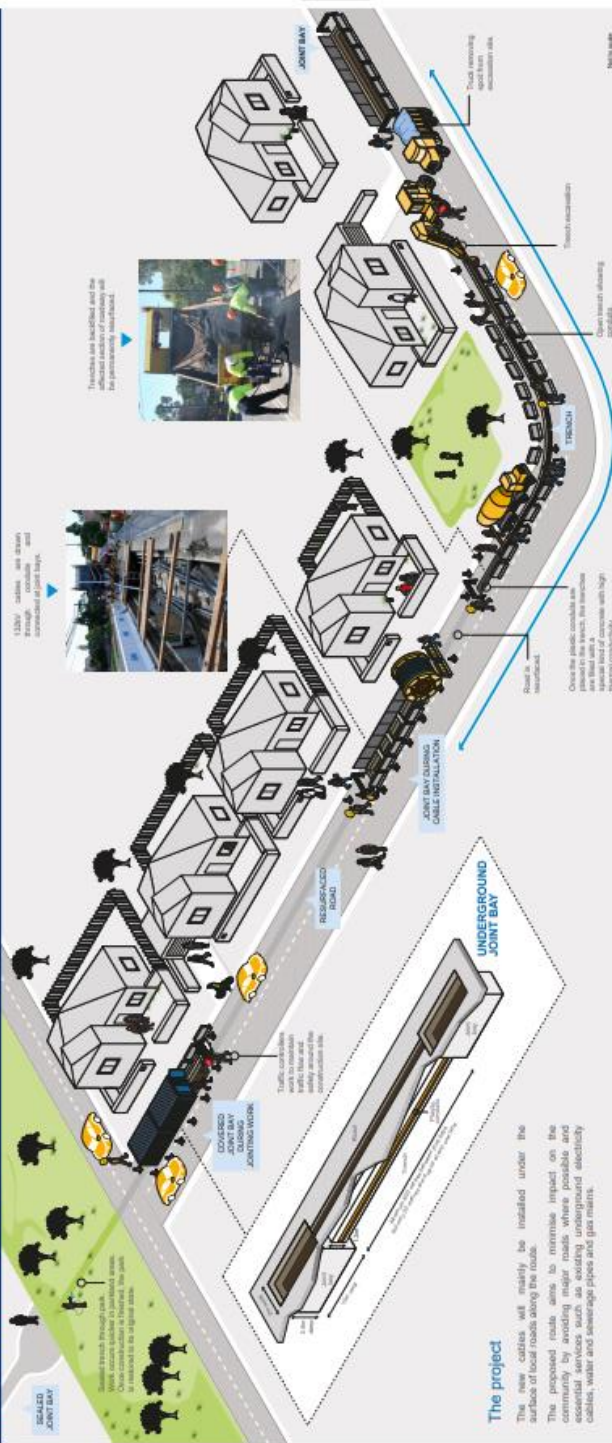
Installing cables

Once the joint bays and pits have been built, we will install the new cables. This will involve transporting the cables to the joint bay locations on large cable drums and pulling them into the conduits.

Work hours

Typical work hours are 7 am to 6 pm Monday to Friday, and 8 am to 1 pm on Saturdays. Some work will be done at night to avoid traffic disruptions during the day, for example, Gardeners Rd, O'Riordan St, Botany Rd and Bunnerong Rd. We will notify nearby properties before this work happens.

Underground 132kV Cable Installation



The project

The new cables will mainly be installed under the surface of local roads along the route. The proposed route aims to minimise impact on the community by avoiding major roads where possible and installing new cables in areas such as existing underground electricity cables, water and sewerage pipes joint bay pits.

Construction stages

- Trenching and conduit installation
 - Excavating one hour, or more than one site at a time
 - Conduits will then be placed in the trenches and then the area is backfilled with a special kind of concrete.
 - The location of the road would then be restored to the end of the project in consultation with the Council.

1-3 days

Time it takes to complete work outside road properties.

Restoring impacted areas

Typically, restoration is done in two stages:

- Excavated sections of road are filled and resurfaced straight away to allow normal use by traffic.
- Permanent resurfacing of the affected areas is done later once all cables are installed and tested.

Your power supply

Ausgrid does not plan to interrupt your power supply to complete the construction work. We will let you know in advance if this changes.

Underground joint bays

- 100% of roads along the route
- The joint bays are used to connect the cable sections
- Between construction of the joint bay and completion of the cables, joint bays are either backfilled or covered with concrete
- Once the cables are installed, the structure of road is resurfaced.

2-4 months

Overall time it takes to work at each joint bay location.

Managing impacts

As with any construction work, there will be some temporary impacts for residents and businesses on or near the cable route. This may include noise, traffic and parking disruptions. We will make every effort to keep these impacts to a minimum.

Our contractor will use traffic management crews to guide drivers, pedestrians and cyclists safely around the work areas.

Sections of the parking lane will need to be closed in streets where the crews are working, but these will be opened up again as they move along the street.

Cable installation

- Cable drums will be set up at joint bay locations
- The 132kV cables are pulled through the trench and connected at the joint bays.
- Cable connection takes one to two weeks.

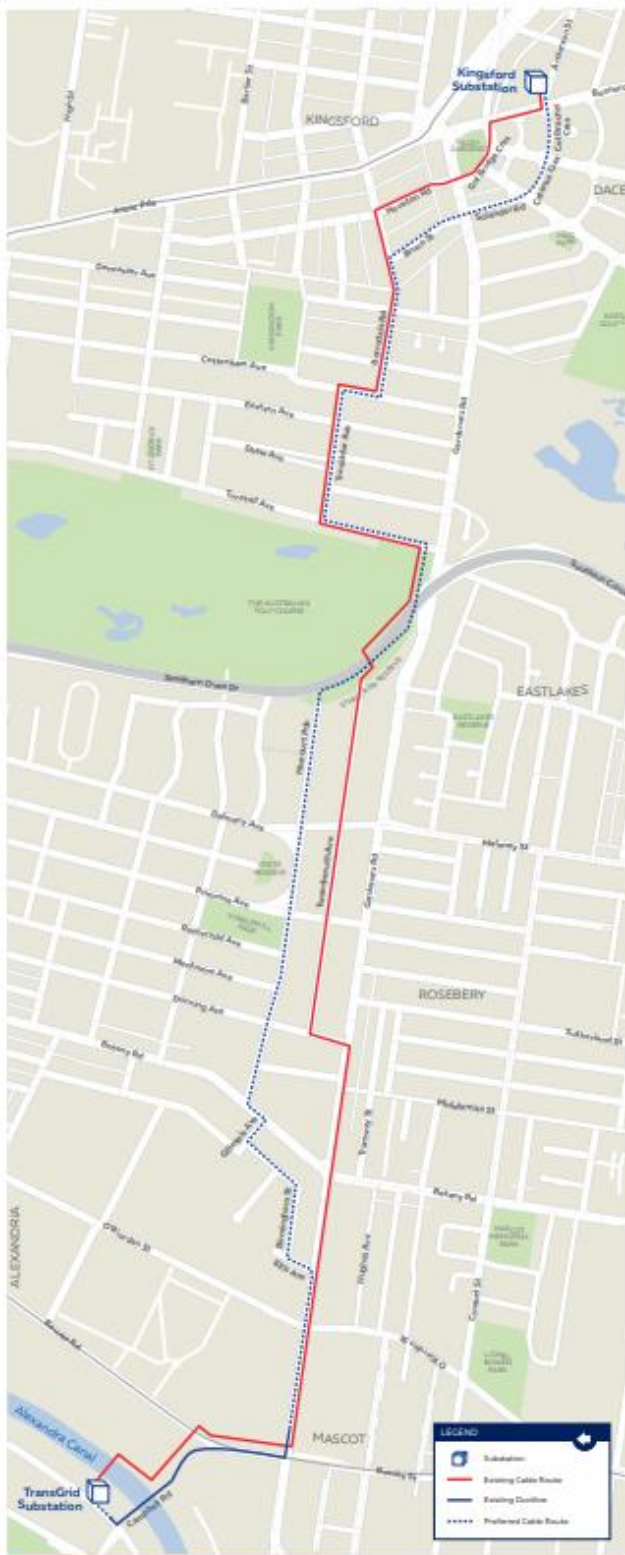
2-4 weeks

Time it takes to complete work outside road properties.

Environmental and health standards

Ausgrid plans its infrastructure in line with relevant environmental and health standards for the protection of both the environment and the community. This includes designing and operating all new equipment to minimise electric and magnetic fields, minimising tree trimming and removal and managing issues such as dust, noise, and vibration during construction. The final REF has more details on how these impacts have been assessed.

Preferred route



Key dates

- **Mid 2021 – February 2022**
 Investigating route options and obtaining community and stakeholder feedback.
- **February 2022 – August 2022**
 Feedback used by Ausgrid to refine construction plans. Site investigations.
- **September - October 2022**
 Review of Environmental Factors (REF) on public display.
- **October - November 2022**
 REF exhibition complete and submissions assessed.
- **December 2022**
 Project approved for detailed design and construction, contractor appointed, and construction program prepared.
- **Early 2023**
 Detailed design and start of construction.
- **Mid - Late 2023**
 Installing cables and connect new cable to the existing network.
- **2024**
 Retire existing cables.

We are here!

Contacting us

You are welcome to contact us with any enquiries:

Call 1800 604 765 (free call from fixed phones)

Email majorprojects@ausgrid.com.au

Visit ausgrid.com.au/alexandria-kingsford



Interpreter service 131 450



6.4 Appendix D – Project presentation, February 2022

Alexandria to Kingsford Cable Project

Community information session



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Purpose of this session

- Provide information about the project
- To provide a feedback forum for the community
- Feedback will assist Ausgrid in:
 - Project decision making
 - Environmental assessment process
 - Prepare project construction contract



2



2

Agenda

- Introduction to project team
- Overview of electricity network and Ausgrid
- Project need
- Planning for the cable replacement
- Key Dates
- What to expect during construction
- Questions, comments and feedback

3



3

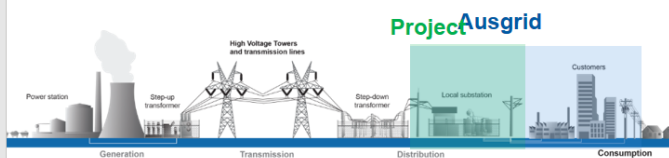
Overview of the electricity network and Ausgrid



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Overview of the electricity network



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Ausgrid's electricity network

- Purpose is to deliver safe and reliable electricity to our customers
- 1.6 million customers - households
- Network covers 22,275 sq. km.
 - 30,000 substations
 - 48,000km of power lines and
 - 500,000 power poles
- Building our network today would cost an estimated \$38 billion



6



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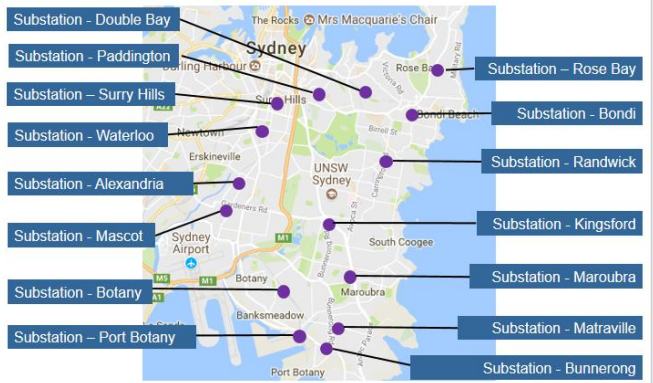
Project need



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Ausgrid's Eastern Suburbs Network



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Proposal

- Existing cables installed in 1970s
- Approaching end of technical life
- Technology is obsolete



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Proposal

- Proposal is to replace four cables with two new cables.
- New cables will extend from cables replaced in 2018 located in Wellington St, to Ausgrid's substations in Zetland and Waterloo.



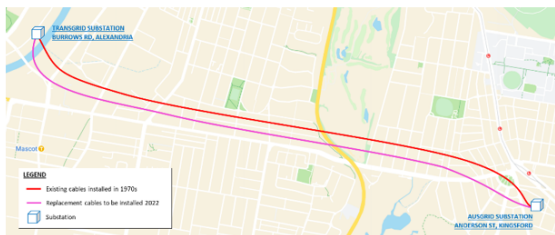
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Proposal

- Proposal is for a like-for-like replacement.
- New cable will be installed between TransGrid and Ausgrid substation.



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11

Existing Cable Versus Modern Cable

- Existing cables:
 - 132kV Self Contained Fluid Filled (SCFF)
 - Technical life of 40-50 years old.
- Assessment of Cable Condition
- Approaching end of service life
- Modern equivalent known as Cross-Linked Polyethylene Cable (XLPE).

132kV cable cross section



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What can we do?

1. Do nothing
2. Maintain & Repair
3. Replace



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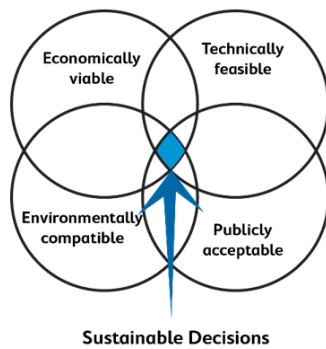
Planning the cable replacement



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How do we plan our projects?



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What have we done so far?

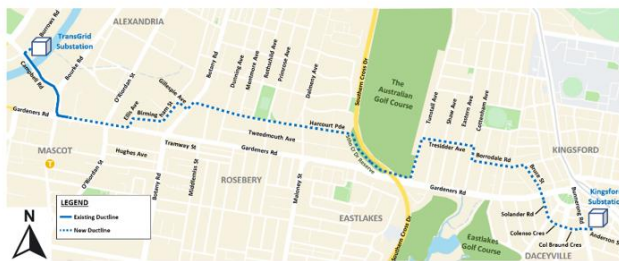
- Desktop and field route options analysis
- Reviewed underground services using Dial Before You Dig plans.
- Developed a preferred cable route
- Commenced major stakeholder discussions
- Community discussions

16



16

Preferred cable route

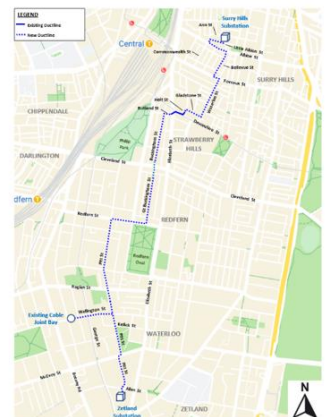


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Preferred cable route



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Key Dates

- | | |
|---------------------------|--------------------|
| - Investigation options | Mid 21 – Nov 21 |
| - Community Consultation | Nov 21 – Mar 22 |
| - Environmental Studies | March – May 22 |
| - Geotechnical Assessment | March – May 22 |
| - Utility Investigations | April – May 22 |
| - REF Exhibition | Mid 22 |
| - Detailed Design | Late 22 |
| - Construction | Late 22 to late 23 |
| - Decommissioning | 2024 |

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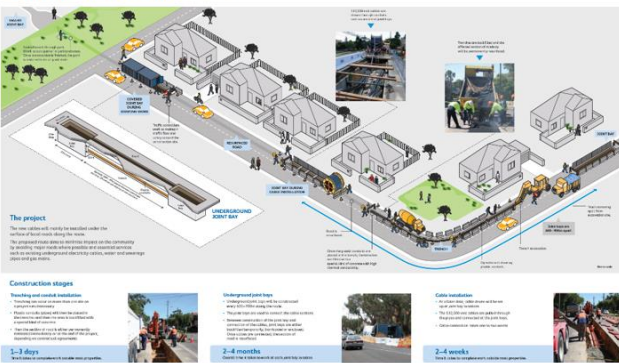
What to expect during construction



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Construction Process

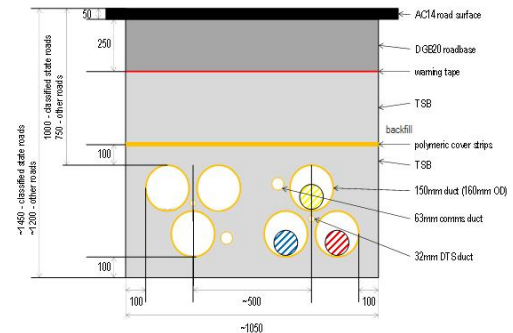


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21

Modern typical cable installation – 132,000V cables



22



22

Typical cable trenching to install plastic pipes



23



23

Semi-permanent restoration following conduit install



24



24

Cable pulling



25



25

Cable joining



26



26

Permanent road restoration



27



27

Similar cable projects

- Artarmon to Mosman Cable Project
- Kingsford to Randwick Cable Project
- Picnic Point to Revesby Cable Project
- Matraville to Maroubra Cable Project

28



28

Questions / Comments / Feedback



Contacting us

You are welcome to contact us with any enquiries:
Call 1800 604 765 (free call from fixed phones)
Email majorprojects@ausgrid.com.au
Visit www.ausgrid.com.au/picnicpointrevesby



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6.5 Appendix E – Community Information Post-Session FAQ, February 2022



Alexandria to Kingsford cable project webinar session: Thursday, 24, February 6:00PM

Thank you for attending an Ausgrid online community information session for the Alexandria to Kingsford project on **Thursday, 24 February 6:00pm - 7:00pm**.

We appreciate the feedback and questions answered during the session which will help shape the future of the project and our engagement with you.

Session summary

During the sessions several topics were discussed and are summarised below:

- An overview on the project and timeline.
- Ongoing community and local business engagement.
- What to expect during construction and next steps.

Answers to questions raised during the sessions are listed below:

- Will the replacement cables in any way have an increased EMF level compared to the old cables?

Ausgrid's will prepare an environmental assessment known as Review of Environmental Factors (or REF), as part of this assessment, project specific EMF modelling will be undertaken.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the Australian Government authority responsible for setting the exposure limits for magnetic fields. In line with multiple other countries, ARPANSA has adopted the International Commission on Non-ionising Radiation Protection (ICNIRP), recommended public exposure limit of 2,000mG.

It is expected that the EMF produced by the cable will be a small fraction of the 2,000mG public exposure limit.

The REF including the EMF modelling will be publicly exhibited for a period of three weeks to allow the community to review and provide feedback.

- What is an REF?
A Review of Environmental Factors (or REF) is an environmental assessment that is prepared and outlines the potential environmental impacts of the project and the mitigation measures.
- How will you manage traffic around the project and its impact on local schools, emergency services, etc?

It is expected that there will be some temporary changes to traffic and parking arrangements along the preferred cable route. Ausgrid will work closely with Councils, Transport for NSW (TfNSW), State Transit and emergency services to minimise our impact on the local road network and the community. This includes:

- *preparing a detailed Traffic Management Plan in consultation the key stakeholders.*
- *issuing local construction notifications between 4 and 14 clear business days before works begin; and*
- *having traffic crews on site daily to safely guide pedestrians and vehicles around the construction activities.*

With respect to reducing impact around local schools, in past projects Ausgrid would reach out to schools along cable routes to confirm their term timetable and schedule construction works nearby works during the school holiday periods.

Please find attached a frequently asked questions document that addresses additional questions raised on the Alexandria to Kingsford cable project.

Kind regards,
The Major Projects team – Ausgrid

Phone: 1800 604 765
Email: majorprojects@ausgrid.com.au

6.6 Appendix F – Site Investigation Notification (example), July 2022



11 July 2022

Alexandria to Kingsford Cable Project Site investigation work in your area

Dear Resident / Business owner,

As you may be aware, Ausgrid is planning to replace existing 132kV underground electricity cable between our substation in Burrows Rd, Alexandria to Anderson St, Daceyville. These cables provide electricity to the local homes and businesses in the area. The existing cable is over 40 years old and needs to be replaced to maintain a safe and reliable network.

Garde Services have been engaged by Ausgrid to undertake ground investigation work along the proposed cable route. This is to confirm ground conditions and to locate existing underground services along the proposed cable route. This information will assist Ausgrid in finalising a route alignment for this project.

Site investigation work

Site investigations will take place in **Dalmeny Ave, Rosebery**

The investigation work will include excavating small trenches, about 0.5m wide by 2m long in the roadway. As part of this work, you will see our work crews marking out utility services with spray paint on the road beforehand.

We anticipate that these works will take up to **2 days to complete**, weather and ground conditions permitting.

Construction hours (7am to 6pm, Monday to Friday and 8am to 1pm on Saturdays)

The work will take place during standard construction hours and is planned to start on Monday, 11 July 2022. There is no night work planned as part of this work. If this is required, we will notify nearby properties before this work happens.

What to expect during the investigation work?

- There may be some noise and dust generated during this work however, we will make every effort to keep this to a minimum and will try to finish the work as quickly as possible.
- Southbound traffic along Dalmeny Avenue, beyond Harcourt Parade, will be closed during this work (map overleaf), but we will use traffic controllers to guide drivers, pedestrians, and cyclists around the area.
- Access to driveways and properties will be maintained at all times unless arrangements are made in advance with you.
- Once work is complete, we will temporarily resurface the impacted areas of the road.

We do not need to interrupt your electricity supply to do this work.

Next steps

The information collected during the ground investigations work will be used to inform Ausgrid's environmental assessment, known as a Review of Environmental Factors, or REF. The REF is part of Ausgrid's approval process and would be used to assess the potential environmental impacts of the project.

The REF will be placed on public exhibition following the completion of ground investigation works and key stakeholders and the community will be invited to make submissions. You will receive detailed information about this process in the next few months.

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Keeping you informed

We apologise for any inconvenience that this work may cause you and thank you for your cooperation and patience whilst we complete this important work.

Please contact our project team to discuss this work and address any concerns you may have by phone at **02 9737 9062** or via email **community@garde.com.au**

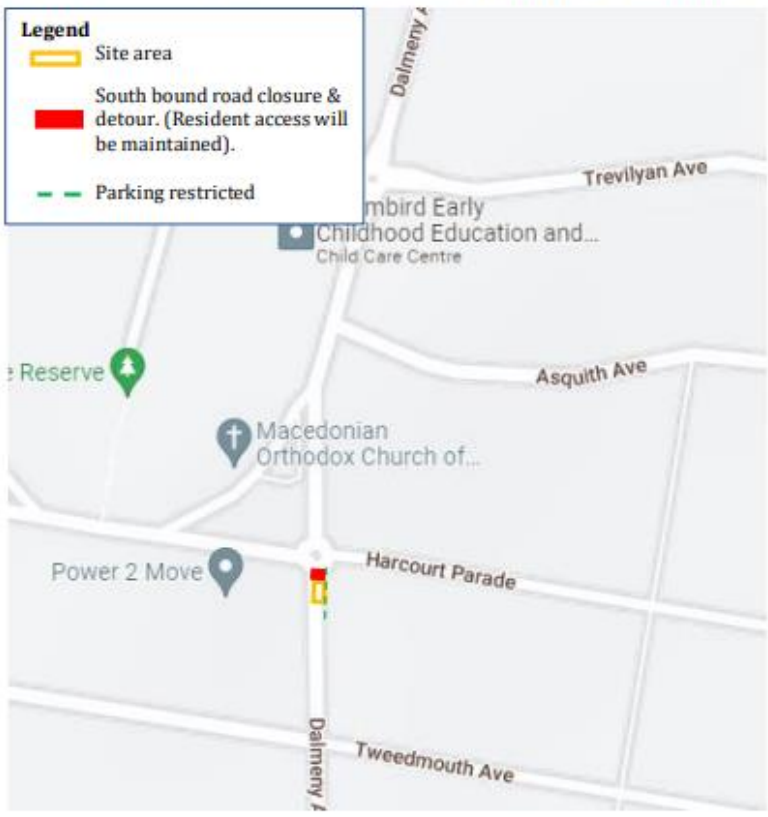
Yours sincerely



John Klaser
Project Manger

Alexandria to Kingsford Cable Project

Map showing location of ground investigation work in **Dalmeny Ave, Rosebery**



If you need an interpreter, please call the Translating and Interpreting Service on 131 450 and ask them to telephone Ausgrid on 1800 604 765

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