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**Look Up and Live**

# Purpose

Purpose of this presentation:

- Make people aware of Look Up and Live (LUAL) as a product to manage the risk of contact with electricity for people working near overhead conductors.
- Provide basic information about how LUAL works.
- Indicate EDB commitments in terms of resources/time/financials.
- The implementation plan and benefits realisation.



# Background

In the New Zealand transmission and distribution industry electrocution through conductor contact or MAD encroachment is a frequent occurrence. Most of these events arise from:

- Cranes and Hiab's use.
- Construction activities associated with scaffolding and building.
- Agricultural equipment such as irrigators.
- Forestry activities and forestry growth encroachment.
- House moving and large object transport.
- With increased use (i.e. housing intensification) and changing use of land (irrigators on land newly irrigated), the risk of contact with electricity is higher.



# Incident data – the case for intervention

Contact is often unintentional and can have tragic outcomes.

- Around 10 overhead contacts a day in Australia.
- Two fatalities per week in USA.
- There have been 22 fatalities in Australia and NZ over the since 2019.
- Electrocutions occur as a result of overhead conductor contact or MAD encroachment.
- In Australia the ratio is 25 overhead strikes to every underground strike.
- A scaffold erector lost both arms in Auckland in 2022 after contacting a 11kV conductor and a fatality in in 2023, also in Auckland.
- Recent death in Auckland arising from crane and contact with conductor

## Look Up and Live in Australia

- Events focus the need for a solution. Evidence from Australia suggests that LUAL has been instrumental in the reduction of fatalities arising from encroachment into MADs.
- LUAL has been in place in Australia for some time. It was championed by Energy Queensland, with all but three transmission companies and EDBs participating.
- The [LUAL app](#) can help plan work near powerlines with the intent of managing the risk of contact with electricity, injury or death from electrocution and damage to equipment and electricity networks
- The [Look up and Live app](#) is also available on the [App](#) or [Google Play](#) stores — providing powerline safety at your fingertips.



## Look Up and Live

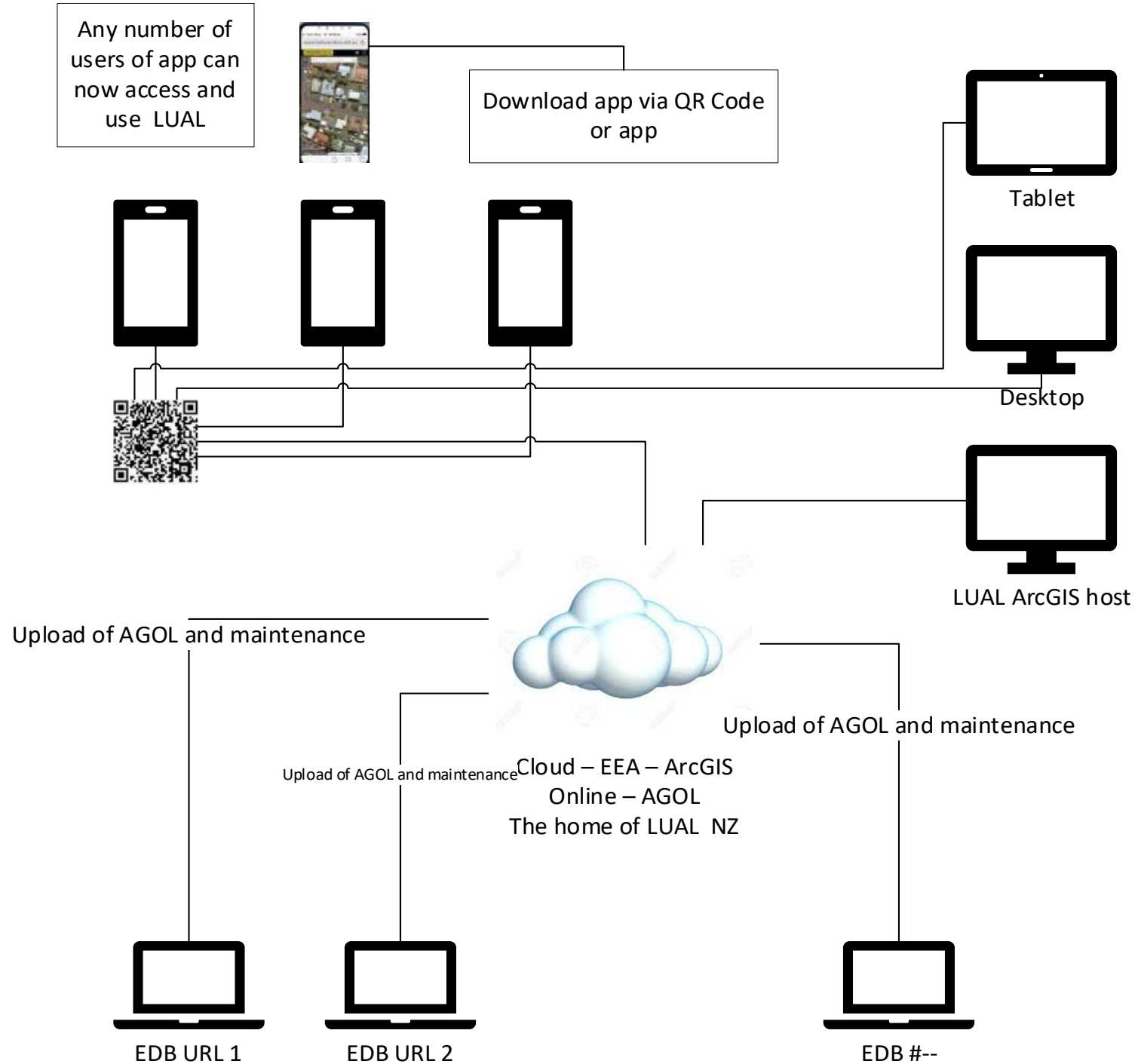
A tool to assist stakeholders to safely plan and/or perform work around the electricity network by providing:

- Overhead powerline locations and imagery via an interactive geospatial map.
- Powerline safety guidelines, including powerline exclusion zones.
- Options for planning or performing work e.g. powerline visual indicators.
- Information on de-energisation or relocation of powerlines.
- Safety advice and high load forms.
- Details of the line owner, including contact information.





# LUAL Solution Architecture



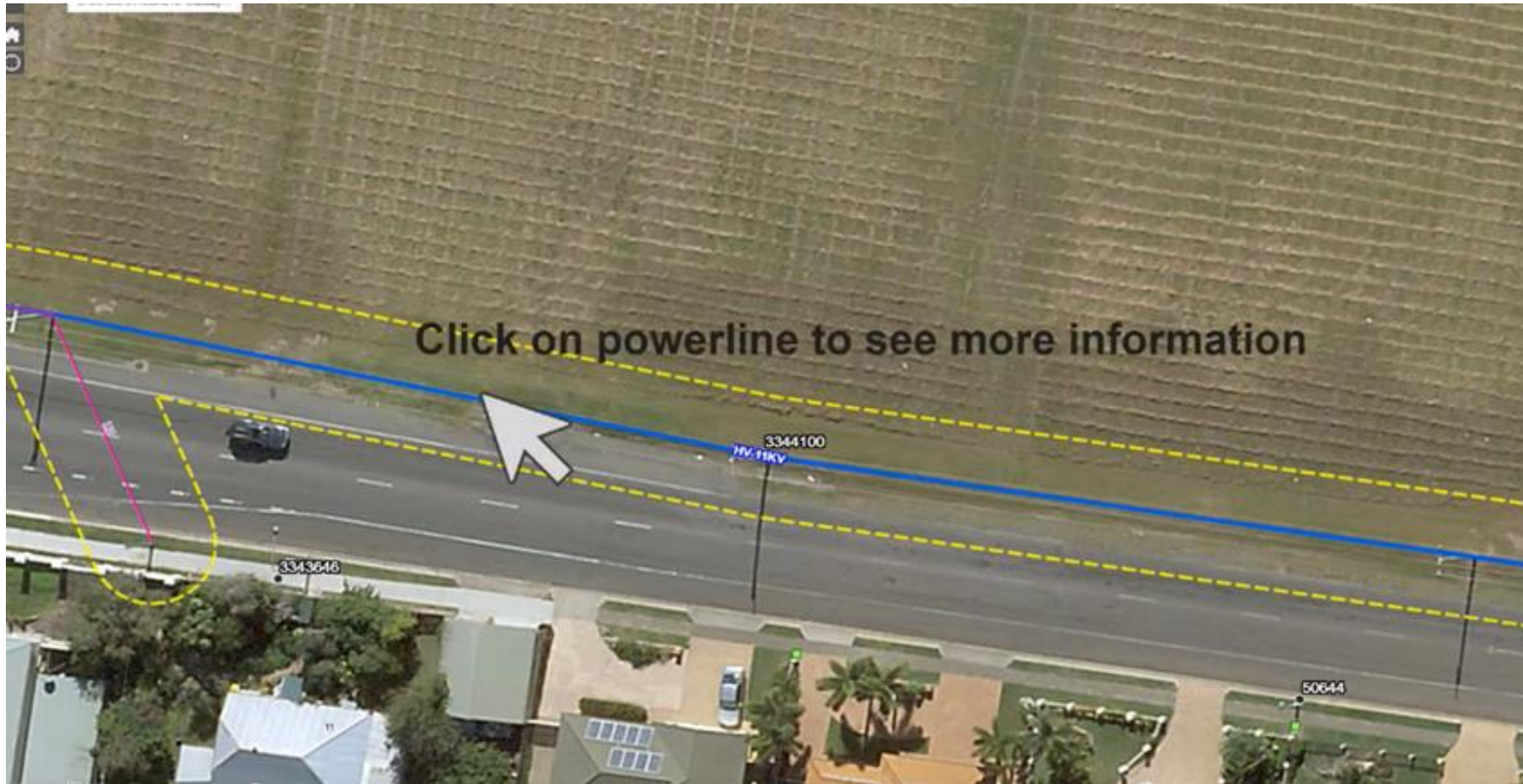
# Rich information on ArcGIS geospatial map

Below shows 66kV transmission line and 11kV EDB line. Notice much larger MAD around 66kV line.





## Rich information on ArcGIS geospatial map



## Rich information on ArcGIS geospatial map

- Any number of users can access LAUL via the cloud.
- Access would be enabled via a QR-Code or app.
- Access can be via a desktop, tablet or phone.
- The EDBs upload their ArcGIS geospatial data in the cloud through ArcGIS Online - AGOL, periodically updating to maintain currency.



## Data uploads – keeping the system current

- The overwhelming majority of EDBs in NZ are using ArcGIS. So, it is a case of sharing data and services through AGOL.
- Each EDB will be responsible for their own data, keeping it up to date and so on as well as deciding what information they will be comfortable sharing in terms of attributes. The user will see lines and any other attributes that the EDBs want to share, particularly around pop ups.
- The data will need to be updated in LUAL on a periodic basis.
- There will need to be disclaimers, to reduce risks and keep the lawyers happy. Australia achieved the legal hurdles so don't see why we can't here in NZ.
- **Example:** pop up for EDB.



# LUAL – current status and work programme

- Proof of concept is complete – it works
- Host will be EEA
- Risk assessment
- Do the build – Eagle Technology
- Enrol the EDBs in the opportunity
- Upload instructions from Eagle Technology/data formatting
- Upload EDB geospatial data into AGOL
- Launch material – marketing and communications
- Go-Live 1Q 2024





**Thank you**

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