


# NEARMAP FOR UTILITIES

Reduce risk and maintenance costs with frequently updated, high resolution location content.

 JULY 2020 | SWANBANK, QLD AU

Approximately **six million utility poles** support the Australian Transmission & Distribution (T&D) overhead power network. With physical replacement costing thousands of dollars per pole depending on the location and complexity of installation, utility companies are adopting automated image analysis to streamline the manual contractor-driven process.

Nearmap offers a combination of high resolution aerial imagery, 3D, and AI datasets to help utility providers predict for failure caused by vegetation interactions within their networks and proactively respond. In the event of service outages caused by severe weather conditions, our post-catastrophe program can enable teams to mitigate the risk of disruption and help field crews bring back service as quickly and safely as possible.

## Nearmap addresses a range of use cases in the utility sector:

- Regulatory compliance
- Vegetation management
- Asset management
- Emergency and post-catastrophe
- Third-party interference
- Network analytics and load modelling
- Fleet and access logistics

# UTILITY PROVIDERS RELY ON NEARMAP TO DELIVER OPERATIONAL EFFICIENCY IN THEIR ASSET MANAGEMENT PROGRAMS

Identify tree overhang, verify asset locations and conditions, and inform regulatory compliance with a catalogue of recent and historical location content you can trust. Our comprehensive location content is used by utility providers to reduce risk and maintenance cost with photogrammetric remote sensing technology.



SEPTEMBER 2020 | ERARING, NSW AU



## Proactively updated location content

Nearmap captures large urban areas up to six times a year, so you always have up-to-date aerial imagery at your fingertips, dated and timestamped. With more than a decade of imagery in most coverage areas, utility providers can gain a deeper understanding of any location to validate, verify, and generate insights that would otherwise be difficult to gather efficiently.



## Quick and consistent delivery

Nearmap uses automation and scalable image processing to ensure the freshest imagery is streamed to your workflows within days of capture. This speed of delivery is unrivalled and ensures you are working with the most relevant, up-to-date source of truth on the ground.



## Wide-scale coverage

Nearmap has an extensive capture program that covers 89% of Australia's population, including the top 140 cities and towns, with more than 446,700 square kilometres covered annually. It's more than likely we'll have your locations of interest covered, ready when you need them.



## Post-catastrophe program

Climate change and extreme weather events — including cyclone, flood, bushfire, hail, and wind — are the most significant causes of service outages and interruptions. Utility providers can now assess the damage and impact of severe weather events by conducting inspections remotely. By allocating maintenance crews to the most devastated service locations, you can make sure relief gets to areas where it's most urgent.



## Seamless Integration

Use derived content values to drive analytical insight, evaluate risk metrics, support logistical exercises, and engage with customers and partners more efficiently. Nearmap content can be integrated with third-party software via API, including leading Enterprise Asset Management solutions such as Esri, Cityworks, SAP, and Schneider.



# MODERN TECHNIQUES TO PROACTIVELY MONITOR CHANGES IN YOUR UTILITY INFRASTRUCTURE NETWORK

With rising costs of managing assets, climate change, and an increasingly distributed utility network, mitigating the risks associated with vegetation is more of a challenge than ever before. Nearmap provides accurate content at a scale that is transforming the way utilities tackle these challenges.

Utility networks that often span thousands of kilometres across multiple vegetation zones require an innovative solution to manage and reduce risks. Conducting inspections, planning vegetation pruning, monitoring hazards, responding to catastrophic events — being able to accomplish these critical tasks remotely and quickly allows you allocate scant resources in a verifiable and repeatable fashion to achieve operational efficiency.



## Vegetation Management

Utilities often manage hundreds or thousands of kilometres of rights of way — which is reflected in the massive number of vegetation units dedicated to assessing and reviewing the vegetation management strategy every season. A combination of Nearmap high resolution aerial, 3D, and AI datasets can reduce field visits and minimise the need for costly LiDAR and helicopter surveys.



## Optimise maintenance and repair programs

Nearmap vegetation modelling content is a powerful tool to estimate and optimise asset management programs by accurately forecasting requirements ahead of time. The frequency of content updates enables auditing of programs on a set cadence. Before rolling trucks, or deploying helicopters or drones, get a close look at your infrastructure footprint to determine the areas that require additional survey efforts.



## Emergency and post-catastrophe support

Liability continues to be a major risk for utilities in the post-catastrophe space. As the frequency of severe weather events affects the serviceability of utility providers, the ability to rapidly assess and understand the impact of damage and network interruption is critical. Nearmap supports verifiable and accurate accounting and liability assessments, enabling quick response and restoration of critical services.



## Risk and regulatory compliance

When a network interference occurs in the operating area, such as tree-related power outages, utility providers need to promptly assess risk and determine the impact on the service area. Situational awareness through early detection of topographic change, geo-hazards, new structures, roadways, new vegetation, and crossings that could compromise clearances can help with early identification of risk and possible mitigation strategies.



## Network loading and capacity evaluation

Circuit-based load forecasting is regularly performed engineering exercise dependent on metrics derived from a variety of sources. Determining load can rely on some of the attributes derived with Nearmap AI — providing analytical outputs and rollups to be used in forecasting models.

## WHAT OUR CUSTOMERS SAY

"By integrating current, high resolution geo-referenced Nearmap imagery with our core GIS and AutoCAD technologies, we can rectify errors in our GIS, produce more accurate designs, and locate where our infrastructure, including power poles and streetlights, actually sits in relationship to real-world objects, such as kerb lines, assets, buildings and vegetation. In fact, we use Nearmap to verify much of our data."

— Phil Southby, Senior Drafting Officer, Powercor Australia



## ABOUT US

Founded in 2007, Nearmap is a leading aerial imagery and geospatial technology provider, delivering content at scale and covering large urban areas throughout Australia, the United States, New Zealand, and Canada.

Nearmap is one of Fast Company's 10 Most Innovative Companies of 2020 and a Sydney-headquartered technology pioneer listed on the ASX 200. Nearmap combines patented plane-mounted camera systems, a world-class survey operations capability, and an automated photogrammetry pipeline to provide imagery within days of capture. Nearmap provides quality at scale, covering large urban areas to empower businesses to perform virtual site visits and make critical business decisions without leaving the office.

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