



Location Intelligence Powers Western Australia

Aussie ingenuity helps shape a brighter future for one of Australia's major electricity providers.

It's a vitally important role: ensuring the reliability and quality of power to a million customers connected by more than 95,000 kilometres of power lines. And when a range of uncontrollable external factors – from bird strikes to bushfires – can disrupt power supply, it's imperative that problems are quickly identified and rectified.

For this reason, Western Power requires a complete view of their network to effectively meet the region's energy needs.

Western Power must be able to proactively understand and manage the state of their network; which is not only critical to delivering good customer service, but also ensures compliance with industry



Dekho, a key component of Western Power's Enterprise GIS solution, is increasingly being used by many of the world's leading utilities for its ability to integrate with other corporate systems. It provides utilities with a sophisticated, accurate overview of their operations.

regulations and maintains good System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) ratings.

To achieve a complete view of their utility and the area they service, Western Power use a sophisticated enterprise-wide location intelligence solution that leverages a geographic web application server called Dekho.

"We partnered with Esri Australia's professional services team and selected Dekho to improve our asset and network management across the board," said Neil Canby, Program Manager at Western Power.

"Our decision to work with Esri Australia was based on their ability to move the use of Geographic Information Systems (GIS) beyond the traditional asset and facilities management areas to extend location intelligence across the enterprise and integrate with key corporate applications, such as Mincom Ellipse. Unlike other providers, Esri Australia's Enterprise GIS solution enables us to undertake sophisticated spatial analysis on the network connectivity model."

Dekho works with Western Power's corporate systems to combine their vast amounts of data into one user-friendly web-based interface. By layering data across a map of their electricity network, Dekho translates complex scenarios into relevant, clear visual presentations that can highlight things such as overloaded grid sectors, areas that require maintenance, or future development opportunities for the network.

It's a system that enables employees at all levels to make informed decisions confidently and in a timely manner.

"This level of insight ensures efficient network design, effective management and maintenance of the network and further improves our customer service standards," said Mr Canby.

"Previously all of our environmental and asset information was stored in disparate systems, and as a result, to run a simple query on where to place a new transmission line could take hours.

"The implementation of Esri Australia's Enterprise GIS has allowed us to see benefits in a matter of months. We are already seeing significant time reductions in all aspects. Previously, running network queries was done manually and took hours; now the process is automated and takes only minutes."

Previously, running network queries was done manually and took hours; now the process is automated and takes only minutes.

Neil Canby, Western Power

Staff can now view multiple layers of data simultaneously, including information about native vegetation, heritage areas and protected indigenous sites, as well as bushfire probability and water tables. Once layered onto a map, this information is used to plan where new assets, such as power lines or transformers, should be positioned.

Mr Canby said that a major benefit of Dekho is evidenced in Western Power's increased rapid response capabilities, particularly to external factors that affect the utility.

"During a recent thunderstorm in Northam, we were able to fly over the affected area and take aerial photographs to load into the GIS. The images were then populated with the location of our assets allowing us to identify and analyse the impact of the storm and assist with planning for the longer term repairs."



Discover the value Esri Australia's location intelligence solutions will bring to your organisation. Call us on 1800 447 111 today.