



The difference is what you see

## Energex



Energex is one of Australia's largest and fastest-growing electricity providers with more than 3,800 staff. Energex provides electricity to around 2.8 million people covering 1.3 million connections and 25,000 square kilometres in south east Queensland.

Energex is also one of the country's most innovative companies in the way it uses location intelligence technology, winning awards for its customer communications, strong environmental focus and community safety.

### // Outcomes

- All key stakeholders are now able to access outage information in near real time
- Energex now has the ability to identify areas of customer growth and optimise the position of sub-stations and other geographic collateral
- Near 100% take up rate by Energex stakeholders
- Reduced restoration time due to increased speed of evaluation
- Appropriate field resource requirements are identified faster as clear idea of damage is obtained sooner
- Reduction in on call evaluation staff during severe weather events
- No system downtime in the 12 months since implementation
- \$21 million annual return on capital due to the identification of additional assets

### // Opportunity

South east Queensland is susceptible to unpredictable weather activity particularly during storm season. Energex's ageing web based Geographic Information System (GIS) viewer experienced increased downtime during these times of high activity, and struggled to cope with the business demands during these times.

Due to the increasing number of incidents during extreme storms, floods and fires, Energex needed to ensure that its GIS platform was able to remain responsive.

"We needed to be able to provide our workforce with a seamless view of the network. During times of high activity, we manage the restoration of power outages, and therefore needed the ability to be able to distribute outage information in near real time to all stakeholders," said Tom Williams, Network Strategic Data Manager, Energex.

Key stakeholders who rely on outage information include the incident response team, general managers and the corporate communications team. Each group has specific tasks during outages, such as responding to media enquiries or keeping track of the location and duration of outages.

Energex needed to be able to deliver this information as soon as it was aware of updates, without detracting from the focus of solving the immediate outage problem.

Energex decided the best approach was to migrate to ESRI Australia's location intelligence gateway solution which enables the information from multiple corporate systems, including customer and asset information, to be pulled together and viewed through a single web-based geographic interface.

### // Solution

To enable Energex to get a consolidated view of the entire business and distribute relevant information to stakeholders during times of high activity, one common platform was needed to manage the processes.

By implementing ESRI Australia's GIS technology, Energex took the first step towards creating a near real-time dashboard view of the entire business. This would serve present needs for a consolidated view of issues and outages, as well as provide the customisable platform Energex needed to cope with future growth.

During a power outage it is critical that Energex is able to ascertain the following key characteristics: 'what' type of outage, 'where' outages occur and the 'time' taken to resume service. ESRI Australia's location intelligence gateway solution was

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## Tom Williams

Network Strategic Data Manager  
Energex

### // Solution

implemented to provide critical insights into the ‘where’ aspect of outages.

As a result, Energex is now able to view the information they require geographically and drill down into necessary levels of data to ensure it can quickly make the best business decisions possible.

“Of real value to us, is that outages can be explored in detail including the original cause of the incident, construction activities for restoration and actual repair tasks undertaken. ESRI Australia’s location intelligence solution has given us the ability to view all this information through a common interface,” said Williams.

### // Benefits

The foundation of the GIS platform saw Energex carry out an initial data capture project that identified an extra \$500 million worth of Energex assets such as underground pillars and cable joints that had not been previously tracked. A surprising result which in turn led to increased revenue of \$21 million a year through return on capital.

“This capture is testament to the value of greater synergy across the organisation and having a more consistent view of assets. From a business perspective it has allowed Energex to make insightful decisions about where to invest money for the future and which parts of our business could be improved,” said Williams.

The benefits to both Energex and its customers following the upgrade to ESRI Australia’s location intelligence gateway were clear:

- // No system downtime in the 12 months following implementation
- // Improved customer services due to efficiencies in identifying and responding to power outages and damaged assets

An example of this in action is that Energex can now be contacted by a customer about a problem and quickly work out where that customer’s supply point may be, where their transformer is located and exactly how they are connected to it. This enables Energex to identify the specific cause of the outage and rectify it much faster than was previously possible.

Following the implementation of the location intelligence gateway, Energex increased business functionality and security in many areas including direct access to customer information (for restricted users only), maintenance and works management information, and network outage reports by all 1,500 users. ESRI Australia’s GIS technology also gives Energex the ability to view extra asset information and display supporting documentation in real time which helps to improve on-the-ground response times.

In addition, Energex can now more accurately manage its human resources

and calculate the number of staff required to come in during an emergency. This is due to the increased operating speed and reliability provided by ESRI Australia’s GIS technology which helps to locate exactly where in the network the customer’s problem is occurring.

Another aspect that has been an added benefit is the increased flexibility in responding to community events and incidents. The location intelligence technology has enabled Energex to track and obtain real time status reports on the Equine Influenza outbreak and areas its employees were unable to physically access due to restrictions.

Energex has also incorporated customer premise meters into the system allowing it to perform better meter management.

### // The Future

In the future, Energex will increase the scope of its ESRI Australia solutions to include the ability to analyse historical data and predict the estimated impact of outages before they occur. Business areas will also be encouraged to leverage the platform to better manage business units, such as integrating more effective environmental assessments into planning, design and maintenance activities. In addition, the technology will also be used to identify optimum depot locations to serve its expanding network and customer base.