

# Project Overview



**Project Name:** SCADA Refresh – IT16

**Description:** The Supervisory Control And Data Acquisition (SCADA) system is the core system used by Multinet Gas (MG) to manage the real-time interface with field devices via the telemetry network.

The SCADA system is responsible for processing control and monitoring functions for the gas and electricity networks.

The SCADA system is a mission critical system essential to the safe, secure and reliable operation of the network. Based on MG's Risk Management Framework and Policy a failure of this system could expose MG to unacceptable (High or greater) business risk.

The project purpose is to perform a life cycle refresh of the SCADA hardware and software platform during the 2018-2022 period in accordance with MG's "IT Asset Management Policy 2.0".

**Strategic Alignment:** The key drivers for this project are to:

- Maintain systems to industry standards to reduce risk of disruption to customers and to retain levels of efficiency.
- Ensure ongoing performance, resilience and safety in the changing distribution network - through the real-time monitoring of network status

The capital expenditure for this project is justified as it is:

- Prudent and efficient in line with accepted good industry practice: and
- Necessary to maintain the integrity and safety of MG's services.

**Options:** All credible options to meet the key drivers of this project have been assessed:

1. Do Nothing
2. Replace SCADA platform with alternative solution
- 3. Upgrade current SCADA**
4. Delay upgrade of current SCADA

**Rationale:** The recommended option is:

**3. Upgrade current SCADA**

This recommended option provides the least-cost, least risk approach to maintain vendor support for SCADA and ensure the continued reliable and safe operation of the electricity distribution network.

The SCADA platform was replaced with a new platform in 2014/2015 and a minor point release is scheduled for 2017. To maintain vendor support for SCADA hardware and software it will be necessary to upgrade the SCADA application during the 2018 – 2022 period. A 2-stage upgrade will be required:

- A major upgrade of the SCADA application in 2020.
- A minor point release in 2022

The proposed timeframe for the SCADA upgrade (2018 to 2022) is in line with MG's Control Systems Life Cycle Management Strategy, IT Asset Management Policy 2.0 and in line with Vendor product road-maps. Specifically, vendor road-maps indicate SCADA releases every 18 months, with 2 years support and maintenance provided. This therefore requires an upgrade every 2 years to ensure the application and hardware maintains vendor support.

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If the SCADA upgrades were delayed beyond 2022 the project would increase in cost and complexity and expose the business to additional risk of operating outdated hardware and software with the potential downstream impact on core asset and network management systems and processes. Network safety and reliability would be at risk.

The Do Nothing option fails to meet the key business drivers and exposes MG to unacceptable risk in managing the distribution network and maintaining current reliability and security of supply, power quality and safety standards.

Option 4 – delaying the refresh will similarly expose MG to an unacceptable level of risk and breach MG's "IT Asset Management Policy 2.0"

There is no business driver to incur the additional cost (estimated at approx. \$10M) associated with Option 2 to change to another Vendor's SCADA product.

**Timing:** Major upgrade 2020  
Minor point release 2022

**Cost:** Major upgrade: \$2.31m  
Minor point release: \$0.57m  
Total Cost: \$2.88m  
No impact on ongoing IT operating cost is expected

**Notes:** The SCADA system is used by both United Energy and Multinet Gas. Costs are shared on a 60/40 basis. All costs shown in this document are MG only.

Cost estimates are based on previous MG SCADA upgrade projects which were undertaken in 2014/2015.

## **SCADA Upgrade 2014/15**

Scope: Version upgrade, Hardware refresh, Minimal new functionality

Duration: 13 months

Approx. Cost: \$2.4M (2014 dollars) (budget figure)