



Contact Energy: Employees lead EHS risk reduction



AT A GLANCE

Contact Energy, one of New Zealand's largest listed companies, embarked on an Operational Safety Improvement Program (OSIP) that included a review of its Management of Change process. The existing process was tracked using an overly-complicated, internally-developed solution. Adoption was low, which resulted in inconsistent and incomplete data, and limited visibility of risks relating to changes across its 11 power stations.

The objective of the Management of Change project was to implement a new internal, user-driven process and system that was configurable, intuitive and could be administered with minimal technical skills. Staff engagement was a high priority to ensure maximum adoption of the new solution, which would in turn improve visibility and reduce environmental, health and safety (EHS) risk.



In 2005, the tragic implications of uncontrolled change in high-risk environments resulted in a devastating explosion at the Texas City Refinery. The explosion was a direct result of changes being implemented without understanding the full scope of implications. Tragically it resulted in the death of 15 people, more than 170 injuries and the refinery shut down for two years.

CLIENT BACKGROUND

Established in 1996, Contact Energy provides electricity, natural gas and LPG products to more than 550,000 customers throughout New Zealand. The company employs more than 1000 people across its 11 hydro, geothermal and gas-fired power stations.

The company has a strong commitment to its EHS responsibilities, not only to employees, but also the surrounding community. This commitment prompted the development of its 2015 Operational Safety Improvement Program (OSIP), a program focused on improving the company's process safety, and ensuring it understands and manages technical risks, and is safe to run.

"A major focus for the Management of Change project was user engagement. By seeking initial input and 'buy-in' from front-line users, they had the opportunity to shape the solution, and share their knowledge and ideas. This was key to the success of the project and saw adoption rates exceed expectations."

—Sarah Williams, Continuous Improvement Leader
(Contact Energy)





“It was clear the SAI Global team had really taken the time to understand our unique challenges and objectives. They outperformed their competitors at the selection phase, and post-implementation they continue to work with us to refine our systems and optimize the value of EHS Manager 360.”

—Gregor Anderson, Senior Business Improvement Analyst (Contact Energy)

THE CHALLENGE

One of the challenges facing Contact Energy was capturing reliable data relating to its Management of Change process across all sites. From relatively low-risk replacements of existing equipment to high-risk circuit board protection works, accurate data is key to ensuring day-to-day safety. This includes ensuring a change has followed the appropriate process, with all necessary steps executed, such as safety-related updates to equipment drawings to reflect an in-field change.

The existing, internally-developed system was complicated and slow, resulting in an approximate 35% user adoption rate and rendering the data incomplete and inconsistent. Without the support of a formal Management of Change process, it was difficult to confirm if all necessary requirements were satisfied, even where the system indicated a change was complete.

This not only had potential to cause safety issues, but the lack of reliable data also impeded the management team's ability to make informed risk-based decisions relating to potential safety risks arising from change implementation. Complete data would provide insights required to focus and direct maintenance tasks, recognize and mitigate design failures and identify weak points in the plant for strengthening.

DEFINING THE SOLUTION

Recognizing this, Contact Energy initiated the Management of Change project. Contact Energy sought a system with a consistently applied and streamlined process, ensuring the implications of any change are understood, and do not inadvertently create risk.

Despite being a high-profile, administrative project, the solution wasn't driven from the top. Instead, a bottom-up approach was taken, with front-line team members providing on-the-job insights and feedback. Key stakeholders were the end-users, also including senior administrative and frontline employees, qualified to make informed decisions that would satisfy everyone's needs; and drive employee engagement, which was a key objective of OSIP.

Following extensive consultation with this stakeholder group and a paper-based pilot, Contact Energy knew what they needed in a solution. Topping the list was the ability to build a system with a consistent, yet flexible process that could accommodate a wide range of plant changes, from very simple to very complex, high-risk changes. In particular, they needed a system that offered:

- **FLEXIBILITY AND CONFIGURABILITY** – a streamlined and tailored process that wouldn't force their process and users' behaviors to change to accommodate the system
- **LONGEVITY** – the ability to develop and adapt the solution as the business changes or processes develop

- **SELF-SUFFICIENCY** – front-line team members could adapt the system postlaunch, with minimal technical skills
- **REPORTING AND INSIGHTS** – valuable, consistent data and insights to facilitate informed, risk-based decisions
- **INTUITIVE PLATFORM** – easy for users to navigate with minimal, if any, training. Armed with these requirements, Contact Energy shortlisted three providers, including an incumbent, and ultimately selected SAI Global's EHS Manager 360 (formerly Cintellate) solution.

“Since the implementation of EHS Manager 360, our teams can see the big picture for the first time: how much work they have on, where they are doing well and where improvements can be made. This visibility is essential for better management and engagement”

—Sarah Williams, Continuous Improvement Leader
(Contact Energy)

From the outset SAI Global worked closely with Contact Energy to understand their unique challenges and desired outcomes, leading Contact Energy through the process to fully understand what could be achieved using EHS Manager 360. This built a strong partnership with common goals. The result was the implementation of a solution that was built to support Contact Energy's processes and could be easily adapted post-launch.

With increased uptake and a more complete picture, Contact Energy's management team can now be confident it has the necessary information to make informed risk-based decisions, such as compelling collaboration in the decision making. Before, people were working on changes in isolation. With these new changes, it is broadly expected that plant availability will improve through enhanced management of risk by applying controls commensurate with the implementation risk. The Management of Change process has essentially enabled the move from stand-alone decision making to collaborative decision making.

The team at SAI Global continues to work alongside Contact Energy to simplify and optimize the system, which will continue to adapt to meet the needs of the business. In fact, following the success of this implementation, Contact Energy are now introducing an additional three Management of Change-related processes into EHS Manager 360, which relate to plant overrides, engineering advice notes and equipment limitation notices.

“What's great about EHS Manager 360 is it's been designed to meet the needs of the business, and is flexible, simple and intuitive to use.”

—Charley Beagle, Geothermal Assets Manager
(Wairakei Plant, Contact Energy)

RESULTS

Since implementing the new system in December 2016, all technical plant changes are documented in the new Management of Change process, and recorded in EHS Manager 360. Multiple workflows have been implemented, providing the necessary flexibility, while maintaining consistency throughout the process. And for the first time, there exists a central, web-based source of truth that provides crucial insights into safety across the entire business.

User engagement is undeniable; by September 2017, more than 600 new changes had been initiated; and unique daily users increased from approximately 20 in the previous system to more than 100 in EHS Manager 360, showing no evidence of the user-resistance traditionally expected when launching new software platforms.