Customer Success Story

nationalgrid

Customer Profile

National Grid (LSE: NG; NYSE: NGG) is an electricity and natural gas delivery company that connects nearly 7 million customers to vital energy sources through its networks in New York, Massachusetts and Rhode Island. It is the largest distributor of natural gas in the Northeast. National Grid also operates the systems that transmit gas and electricity across Great Britain.

Through its U.S. Connect21 strategy, National Grid is transforming its electricity and natural gas networks to support the 21st century digital economy with smarter, cleaner, and more resilient energy solutions. Connect21 is vital to its communities' long-term economic and environmental health and aligns with regulatory initiatives in New York (Reforming the Energy Vision) and Massachusetts (Grid Modernization).

Key 2015 Metrics:

- Electricity Generation 3.8 GW
- Electricity Transmission 27.5 TWh
- 16.5 billion cubic meters of gas
- 3.5 million US electric customers
- 3.6 million US gas customers



Challenges

National Grid faces the "trilemma" of balancing the cost of energy, maintaining the security of energy supply, and sustainability. ISO 14001 requires a full commitment to compliance for both legal and voluntary requirements. With operations in 5 States, varying regulatory requirements makes management a demanding process.

Before implementing the Perillon solution, National Grid managed its Environmental program using an internally built system. The system architecture was aging and its inflexible design limited scalability. Technical knowledge was limited to only a few people, creating unintended risk. National Grid's internal system was built to match existing manual EHS processes, but it was difficult to adjust to changing processes and requirements. Finally, reporting and analytics required time-consuming customization with limited insights into deeper questions.

Business Objectives

National Grid sought a flexible and scalable externally hosted solution that would centralize all the company's environmental information across North America, foundational to overall corporate risk management. A key goal was to enable institutional knowledge transfer across more individuals in support of its ISO 14001 program. The company needed an easy to use and affordable solution to help identify and properly manage mandatory compliance obligations. Protecting National Grid's reputation and financial stability were key tenets toward improving corporate risk management. The role of the new environmental management software system was to help elucidate leading and lagging indicators, providing immediate compliance feedback and reporting on status. Other goals inherent to the system included improving resource efficiency and faster responses to issues exposed.

AT A GLANCE

Perillor

CHALLENGES

- The "Trilemma" managing the cost of energy, security of supply and sustainability
- ISO 14001 requires full commitment legal and voluntary
- 1,500 reports annually
- 500 licenses and permits
- "Old" system aging architecture, poor administrative continuity, inflexible design, limited reporting and analytics

SOLUTION

- "New Path" with Perillon
- Multi-phase implementation throughout North America
- State of the art externally hosted architecture
- Highly configurable for more administrators
- Real-time compliance performance monitoring and analytics
- Comprehensive Environmental functionality all in one system

RESULTS

- All compliance activities centralized
- Ongoing day-to-day assessments reveal realtime issues to mitigate risks
- Identified vulnerabilities by location or business unit





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Solution

The "new path" forward with Perillon includes a state of the art externally hosted architecture enabling configuration by more National Grid staff – a team of administrators. Performance monitoring with drill down and mobile technology are more than nice to have features. They push data collection to lowest levels in the organization and improve timeliness of identifying issues. Key modules include:





Compliance Task Management enables scheduling and monitoring of compliance obligations, including activities such as regulatory reporting, permit renewals, PBS or CBS tank and containment testing.



Document Management centralize important operating procedures, permits and best practices linked to compliance activities.



Audits and Inspections allow monitoring of day-to-day operations, scheduled and ad hoc. Key capabilities include a question library with questions organized by process, applicability to link processes to specific locations or work areas, advanced scoring to analyze responses and reveal issues (i.e. training lapses, communication breakdowns, etc.) and weaknesses which may surface at specific locations across the organization.



Environmental Data Management for a wide range of media such as water use, waste or air emissions.



Performance Tracking with drill down analytics for answering questions such as – how many compliance tasks are coming due or completed, audit and inspection reviews across facilities for comparison to benchmark averages, or what are trends across facilities with drill down to root cause and leading indicators.



Mobile apps that work on iOS or Android devices to enable inspection data collection in the field while offline and create immediate corrective action requests to generate faster response times. Eliminating data double-entry enables more efficient information management, better accuracy, and more timely knowledge across a large service area.



Performance Monitoring

Data Views	Data current as of Feb 16, 20	17 12:00 AM EST	
Tasks/Findings, by Task Owner		»	
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* Gas Ops * WORCEST	m-Ti All waste material has been placed in the containers 4		
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Gary Bourque	General housekeeping is satisfactory. 3		
John Compo	Wastes are properly segregated in appropriate du 3 All lids or covers are in place and secure. 2		
Joseph Evola	Dumpsters or containers are appropriately covered. 2 Tank inspections are complete and records are av 2		
Kenneth Wo	Tank paint coating is intact. 2		
Kerry Martin 🚽	Other Questions 9		
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Results

The Perillon system has helped the company progress towards its goal of zero compliance incidents each year. National Grid will continue to meet its compliance obligations, maintain high relationship standards and prevent the intangible lost trust with regulators in all states in which the company operates. Key success factors and lessons learned included a strong focus on configuration requirements necessitating learning the product up front and mapping to National Grid's internal processes effectively.



"National Grid's motto is 'trusted to do the right thing' and Perillon's properly implemented environmental management system allows me to know where I stand every day, with surety."

Michael Tucker Manager of Environmental Programs National Grid

For more information on Perillon solutions, visit <u>www.perillon.com</u>, follow @PerillonSoft on Twitter, or contact the Perillon team at (978) 263-0412.