

case study



Honeywell protects new Transgás LNG terminal and alternative energy supply to Iberian Peninsula

Transgás Atlântico's new LNG Terminal was initially developed to enable Portugal to diversify its natural gas supply sources. Its sponsors quickly realised, however, that the Terminal was being built into a highly competitive Iberian natural gas open market. Apart from its economical efficiency, compliance with best-practice safety, environmental, legal and ethical rules was also vital. Tight security – whether monitoring potentially hazardous processes or keeping the site physically secure – is fundamental to this mix. Transgás turned to Honeywell, a world leader in safety and security, to help protect its mission critical investment.

Honeywell

Honeywell Security Solutions

THE CUSTOMER

Transgás Atlântico is operating a new liquefied natural gas (LNG) import terminal at Sines, Portugal. The marine facility is purpose-built for the receiving and unloading of LNG from methane carrying tankers. It houses a jetty area, storage tanks – with capacity of 240,000 m³GNL – re-gasification plant, send-out pipe and truck loading facilities for onward distribution to areas beyond reach of the high-pressure grid.

Projected throughput is 5.25 billion cubic metres of gas per annum with peak hourly flow of 600,000m³ per hour.

THE CHALLENGE

The Sines Terminal supports the wider use of clean natural gas throughout the Iberian Peninsula. It enables Spain and Portugal to diversify their energy source. High availability and reliability of supply is vital to customer confidence and the success of this strategic transition. Security, fundamental to plant uptime, is a priority – both the safe handling of potentially hazardous materials and the physical security of the sprawling, 23 ha site.

THE SOLUTION

The Honeywell solution delivers remote surveillance of automated processes and site-wide security. Every component is integrated and managed through one, common platform – a PC located in the main control room.

A perimeter fence, with in-built motion detection provides a first line of defence. Night or day, it picks up any untoward movement for immediate investigation and

response. With cameras every 200m, any disruption automatically triggers a digital video live view and recorded response.

On site, access controls manage entry to the different zones and thereafter, to all doors, barriers, gates and truck loading sluices within that area. Individual access rights, including integrated photo ID card, are governed down to the finest detail – the right person, at the right place at the right time.

Digital video surveillance provides a dual function: physical security and process inspection. Not only does it keep watch over the port area, for example, it monitors the safety of the ship-to-shore unloading process – likewise the lorry tanker loading bays. Alarm related camera presets activate recording, capturing the required footage, as it is needed automatically. Where appropriate cameras are explosion-proof.

Utilisation of a fibre optic network eliminates the need for coaxial cabling and ensures flexibility of installation. Cameras can be installed where they are needed and the configuration modified to meet new security measures, thus ensuring maximum flexibility and protection.

Honeywell drew upon its international resources to deliver the project on time. Strategic input came from the Honeywell specialist security group in Belgium. Working with the main contractor, Tractebel, they decided the equipment required, oversaw project engineering and programming, cabinet construction and factory acceptance testing. Site installation, commissioning and operator training – how to respond to incoming alarms, how to use the cameras for selection and retrieval of stored images and how to track the presence of people on site – passed to Honeywell Portugal.

THE BUSINESS BENEFIT

Transgás Atlântico's LNG handling operation is safe and secure. The workforce is empowered, productive and responsive. Operating costs are kept to a minimum without detriment to the required security and safety requirements.

Whilst each sub system manages and safeguards one aspect of Terminal operations, fully integrated information management – through a single control point within the main control room – gives a complete picture of enterprise activity.

It also provides sound event management, including a foolproof audit trail and automated alarm management. In the event of an incident, on-screen action prompts appear and operators can record notes as they go. The recording buffer also tells the operator what happened prior to the event – a big help in the prevention of a repeat incident. Risk of human error is also reduced.

With the facility up and running, Honeywell Portugal provides comprehensive service support, including spare parts, training and technical trouble-shooting.

Performance gain doesn't stop there however. The Honeywell security and life safety solutions are integrated with the (Honeywell) process manufacturing controls governing distributed control and flow rates. Going that one step further, delivers improved productivity, supports better asset utilisation and, over time, lower life cycle costs. Ultimately it supports Transgás Atlântico's business ambition – to deliver an efficient, cost effective, alternative energy source to Portugal and Spain in a safe and secure way.

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