

## A project under constant supervision.

Ecuadoran Electric Company uses Axis cameras to monitor hydroelectric mega-construction project involving hundreds of workers over the past 4 years.



**Organization:**

Ecuadoran Electric Company

**Location:**

Cantones de Pucará and Pasaje, Ecuador

**Industry segment:**

Critical infrastructure

**Application:**

Safety and security, remote monitoring

**Axis partners:**

Compucima, Anixter, NUUO

### Mission

Minas-San Francisco is one of nine flagship projects of the Ecuadoran government that will facilitate the generation of renewable energy through the application of clean technologies. The project – which has directly led to the creation of 1,795 jobs – is located 18 miles from the nearest population center. Given the remoteness of the location and the magnitude of a construction project that has taken place over a period of several years, it has been essential to maintain strict employee security.

### Solution

The Ecuadoran Electric Company (CELEC-EP), in charge of the project, decided to implement a video surveillance system to ensure the security of everyone working on the project, as well as that of its own facilities during the various stages of construction.

Tech integrator Compucima recommended an Axis Communications solution for an installation of seven cameras directly on the construction site, and four in the administrative offices, controlled with NUUO software.

### Result

The system's implementation has ensured the advance of the project's phases within the expected timeframe, thanks to the fact that any incident that could cause a potential delay could be observed in time to prevent it – and still meet the expected deadlines. In addition, members of staff feel a sense of security despite working in a remote location. Once the project is up and running, Ecuador will lower its CO2 emissions by almost 700,000 tons per year – representing a significant step toward environmental protection.



## Unparalleled in Latin America

The Minas-San Francisco Hydroelectric Power Plant construction began in 2012 with a work schedule that included various phases over an area covering close to 1,300 square miles. In conjunction with Axis partner Compucima, the Ecuadoran Electric Company (CELEC-EP) decided to implement a security system that would provide complete coverage and enable total monitoring of the project in order to stay up to date on its status, thus creating an effective collaboration in maintaining the monitoring of construction progress.

In order to strengthen the installation of this security system, CELEC-EP drew up a plan in collaboration with Compucima to provide support to this project of huge size and importance to Ecuador. The project entailed the closure of the Jubones River and its diversion into a low-pressure tunnel to allow the facility to generate hydroelectric power.

### Links in remote areas

To provide a high-resolution video surveillance system, Compucima installed a total of 11 Axis network cameras: nine AXIS Q6035-E and two AXIS P3346-VE Network Cameras, covering both the work areas as well as the administrative offices, for the protection of all personnel working there.

"With this system we had two main objectives: first, to ensure the physical safety of all staff on site, given the location of the site being in an area very far from any population centers; second, the cameras installed directly on-site serve as the 'eyes' of the project managers thanks to their optical zoom capability, thus allowing for the detection of all activity and monitoring of all aspects related to the completion of the work by the deadline with minimal delay," says Diego Hurtado, Project Engineer at Compucima.

According to Hurtado, "This comprehensive system allows us to provide security to those working on the project, and being equipped with suitable anti-vandalism features guarantees that, in the case of a perimeter breach of the site, nobody will be able to damage the cameras to the point of being dismantled or appearing broken."

The system installed provides cutting-edge technology from Axis that facilitates round-the-clock monitoring of the project with high-resolution images. "The greatest challenge on the project was the area in which it was located, that required the use of high-resolution, infrared zoom cameras that facilitates round-the-clock monitoring of the project day and night without any problems," says Hurtado.

The chosen system provides for the monitoring of employees, engineers as well as technicians, who have access to project facilities and to the administrative offices located there, and it facilitates the monitoring of work progress in order to help meet the deadlines for completion of each planned phase.





### Incidents resolved

Thanks to the installation of this robust video surveillance and monitoring system, the administrative, labor and technical personnel all benefit from a tool that allows them to carry out their work with peace of mind in the work zones as well as in the administrative areas. In addition, the use of the cameras allows them to respond to any incident that may occur on site in a timely manner.

Once the system was installed, the cameras demonstrated their excellent capacity for handling various environments and bandwidths (H.264), day and night, with lux level analysis. Its efficiency having been proven, the system is now being considered for use on other projects in the region.

**“The implementation of this video surveillance and monitoring system has allowed us to be able to quickly check work carried out on the project, despite the large distance between the facilities and the location for the engineers and administrative personnel. The system has turned into an efficient way of collecting a considerable amount of information related to the project’s construction phases.”**



**John Rockwood, Head of Organizational Management at CELEC-EP**

**For a project in a remote location far from any urban center, using Full HD surveillance and monitoring cameras provides a more extensive field of view thanks to the use of the cameras’ zoom functionality.**



# About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the global market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 1,900 dedicated employees in more than 40 countries around the world, supported by a network of over 75,000 partners across 179 countries. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

For more information about Axis, please visit our website [www.axis.com](http://www.axis.com).