



STAND-ALONE SYSTEM FOR MONITORING WATER VOLUME SUPPLY WITH DATA SENT VIA GPRS TO THE CONTROL CENTRE

System for 24/7 monitoring of the water volume supplied to each farmer by measuring the flow rate of the delivery points

Supply: 2015 | Maintenance: 2015 – in progress | Municipality: Cesena



*Consorzio di
Bonifica della
Romagna*

CHALLENGE

Execution of a stand-alone system for monitoring water volumes supplied to each farmer connected to a monitored delivery point.

WHY ETG?

The wealth of experience that ETG has acquired in the weather instrumentation sector and in real-time monitoring data acquisition, archiving, processing and circulation makes it a valuable collaborator.

INTRODUCTION

The monitoring system in question consists of **9 delivery units** made up of water meters, ETG control units (iEngine model) and a solenoid valve, **2 repeaters** of radio signal in free ISM band consisting of an iEngine control unit and **1 concentrator** with iLogger control unit, which transmits the data received by radio to the control centre via GPRS.

The new ETG software with the trade name WinNET7 was installed at the control centre. It is equipped with a specific specialised module for controlling correspondence between the irrigation recommendation and each farmer.

SOLUTION

Each farmer is assigned an amount of water resource based on the type of soil, its extension and the type of crop. Based on this information, and using the forecast pluviometric and weather data, he is recommended use of a specific amount of the water resource by the Irriframe service.

This system and the software provided allow the Consortium to check whether the farmer is actually using the water resource recommended without generating needless waste. The system also warns the farmer when the water resource assigned to him is about to reach the threshold. Should the amount be exceeded, the delivery group can be inhibited in order to stop the water flow.

BENEFITS

A solution like the one proposed by ETG monitors the water resource delivered to each farmer and checks if there is any waste by providing the instruments for controlling the use of the water, which in recent years has become a precious element not to be wasted.

SUCCESSFUL DATA

The monitoring system communicates with a concentrator over free radio band that retransmits the data to the control centre via cellular network. This feature spares the customer the burden of applying for non-free radio frequency permits.

The solenoid valve remote control system offered considered savings in logistics terms. Since it is now a remote controlled operation, the closing of a solenoid valve allowed the Consortium technicians to avoid extravagant and costly movements necessary to manually close the delivery points.

CONCLUSION

Every new monitoring system engineered by ETG entails peculiarities that can be solved only by those - like our company - that have been working in the sector for years.

The system built for Consorzio di Bonifica della Romagna led to solving a problem tied to the control of an important resource like water, unfortunately extensively wasted.



Figure 1: Free band radio repeater | Figure 2: Delivery unit | Figure 3: Concentrator