

## Proposed theme

**Program: Energy - FP7; EUREKA; EUROSTARS**

**Title: LOCAL MONITORING AND INDEXING OF THE NATURAL GAS ENERGY**

Keywords:

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We are looking for: Partners / Coordinator  
Research area:  
Institution type: SME / University / Technology Transfer Centre  
Expertise:

### **Abstract:**

As is already established in the new Romanian natural gas regulations, natural gas energy will be the base quantity for fiscal billing activity beginning with the year 2008.

Only 5% of the Pressure Control and Measuring Stations (SRM) are prepared to have an online interface for the information of gas chromatography list components and to index the quantity of natural gas energy. In order to fulfill these requirements, ROKURA is engaged in a Research Project of Local monitoring and indexing of the natural gas energy. The new system reads varies values of the flow processes from SRM-s and monitors the natural gas network activities according to Natural Gas Regulations.

The current deployed system consists of a base intelligent unit with a high end microprocessor and related RAM, a LCD touch screen, communication ports for reading signal from SRM-s and backup power source like main power source and/or solar panels.

The new system can monitor 20 different SRM-s but not more than 40 flow meter units for an easy and time secure communication interval.

The system can be remotely or locally configured for every flow meter unit and for the natural gas pipe network that assists the adjacent SRM-s. Every valves state change is monitored and the natural gas network model is maintained accurate in order to generate precise values for natural gas energy bills (industrial or domestic).

The system is connected to a SCADA server from which a WEB server offers

complete information about daily, monthly and yearly volume and energy indexes, mean flows, mean pressures, mean temperatures and so on.

The system has been implemented according to the rules of ISO 12213-1,2,3 and ISO 6976 natural gas standards.

The new system is made on a good collaboration with people from Polytechnic Institute from Bucharest and with people from Research Department of The National Company for Natural Gas Transportation from Medias.