

# ***Institutional Framework***

**VATTARO  
CANAL SAN BOVO  
(ITALY)**



**MUNICIPAL MAYOR:** required the installation  
**ADMINISTRATION:** financial coverage  
**TECHNICAL:** installation work



**COMUNITA' COSTA  
PARADISO  
(ITALY)**



**:PRESIDENT**  
**:ADMINISTRATION**  
**:TECHNICAL**

# *Starting Point*



Next Energy is a start-up that focuses on the research, studies and the desire to innovate inspired by its founder, the Engineer Eros Bridi.

The concept of hydro-electric pipes is at the basis of our R&D project, which places us as pioneers to new alternative energies.

We can improve the efficiency of the existing territorial water supply networks and recover the huge amount of lost energy in the small and medium water pipelines, while offering profitable solutions.

# ***Giralog compared to hydro-electric turbine***

## **GIRALOG®**

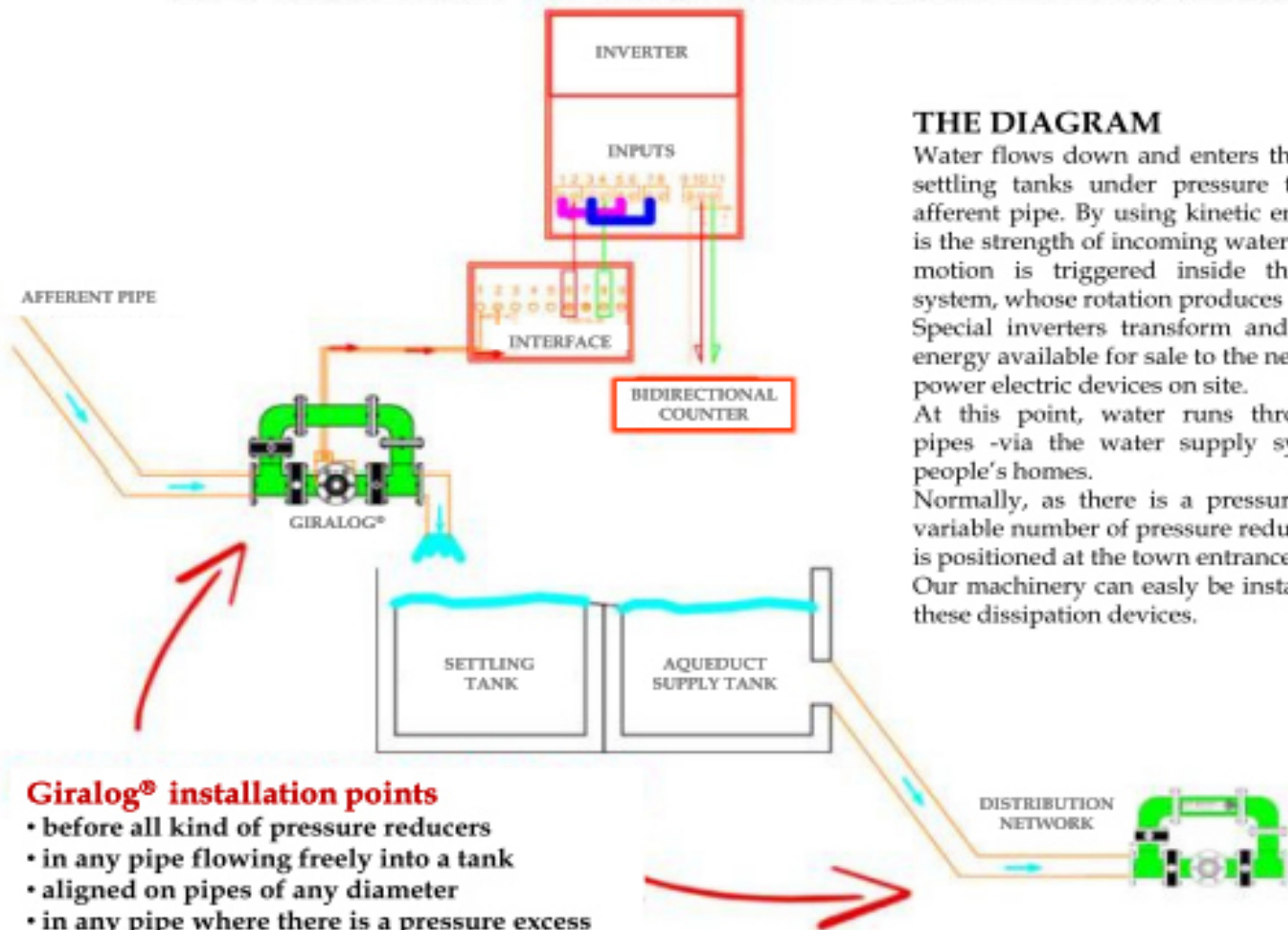
- ✓ **Hydraulic variator**
- ✓ **Utilizes pressure and flow**
- ✓ **Non-stop working system**
- ✓ **Reduces maintenance costs**
- ✓ **Cavitation occurs in yank**
- ✓ **Minimal intrusion and convenient housing in pre-existing works**

## **HYDRO-ELECTRIC TURBINE**

- ❖ **Hydroelectric turbines**
- ❖ **Utilizes only pressure or flow**
- ❖ **Need for closures with floating valves**
- ❖ **High maintenance costs for valve replacements**
- ❖ **Cavitation risk along the pipe**
- ❖ **Large spaces and building work required**

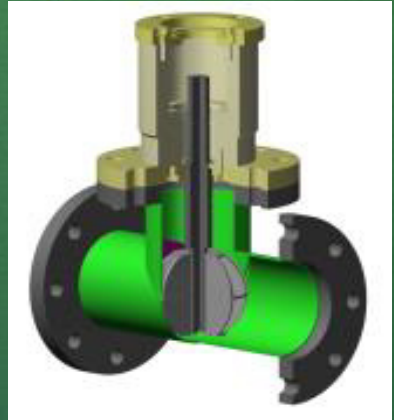
# Approach

## OPERATING GIRALOG® DIAGRAM



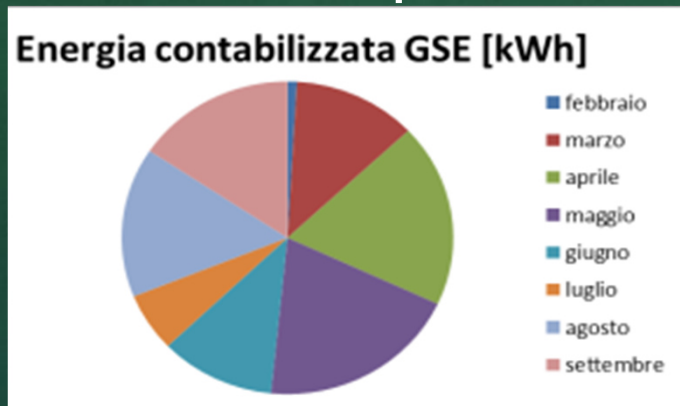
### THE DIAGRAM

Water flows down and enters the aqueduct settling tanks under pressure through an afferent pipe. By using kinetic energy - that is the strength of incoming water - a turbine motion is triggered inside the Giralog® system, whose rotation produces electricity. Special inverters transform and make this energy available for sale to the network or to power electric devices on site. At this point, water runs through other pipes - via the water supply system - to people's homes. Normally, as there is a pressure excess, a variable number of pressure reducing valves is positioned at the town entrance. Our machinery can easily be installed before these dissipation devices.



# Outputs

- The recovery of the energy stored but unutilized inside any size of pipe (2", ",8",e+)
- Additional efficiency is created by Giralog in the energy of the water supply system. This creates double savings by dramatically reducing MAINTENANCE COSTS and producing MORE ENERGY
- CERTIFICATE TUV EN ISO 12100: 2010
- PATENT EP20140000902 20140313



Anno	Mese	Energia contabilizzata GSE [kWh]
2014	febbraio	68,31
2014	marzo	897,95
2014	aprile	1410,44
2014	maggio	1460,29
2014	giugno	835,83
2014	luglio	449,79
2014	agosto	1152,65
2014	settembre	1160,97

# *Lessons*

Administrative procedures

Authorizations

Resolutions

Policy of municipalities

made sometimes difficult to complete the work and installation of the machine

Municipal policies encouraging the installation of greener energy systems ensuring energy savings should be developed. Direct municipal procedures in this sense would reduce the administrative burden connected with the implementation of such systems.

# *Follow up*

**2014**

Storage of two drawings at CCIAA of Trento:

- regulatory body of the flows transiting in deposits or the storage tanks
- impeller inserted in hydraulic systems

**2015**

MICROGEN: Innovative self-powered system that works 24 hours 24

**2016**

SYSTEM of micro food production for video surveillance systems and to battery device