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Why smart metering in italian water cycle : more than an opportunity

(1) overview, .

The paper shows the opportunities for utilities in italian water distribution industry: the Italian integrated water supply system presents a very complex land scape. From general data base comes a poorly measured situation: ≈40% average losses with peaks of up to 50%, old fashioned distribution networks with low intensity of digital metering and integration, efficiency goals are no top priority to the operators and Low control on pressure rate. Only partial inconsistent and old data are available to manage this complexity: what ever the real number, performances levels clear lug EU standards .

Which are the underlying drivers for this situation? Underlying drivers for Italian water market are on four main points :

poor scale (91 ATO with a country level less than 1 ml inhabitants)

Lack of focus(old infrastructure, lagging investment and not enough managerial attention to performance)

Poor regulation (no benchmark, brief time objectives, cost plus thariff not rewarding performances).

Too Low level in investment plan (whithout focused objectives)

(2)methods

Can the Utility raise equity or add debt to their already in debts Business System? Or is it realistic to assume that this money will come from a raise in tariffs or from a raise in taxes?

Owing the obvious negative answer, a significant quota of what needs to be invested can be obtained though performance improvements:in particular smart metering solutions, under a precise customised design, are able to reach a reasonable increase in efficiency and economic beneficts.

It is required, in addition, a revamping design in planning investment, due to an, not up to date, use of standards in water distribution projects.

Major investment needed to realign the Italian situation to EU standards (None ATO plan is now eligible for project financing as from an Anea financial analysis).

(3) Results

There is a clear mismatch between the size of challenge and application solutions. Owing Enea calculation on predictable save energy rate and recovered cost from total losses (as from D.M. 99/97) reduction, we estimate the operational improvement in efficiency throw technology and sistema tool :adding reduction losses beneficts, we could save 1,5 Bn/€/year, 50% of total inefficiencies, strong enough to support 50% of the yearly investment plan rate.

But this path has to be monitored under strong Regulation rules.

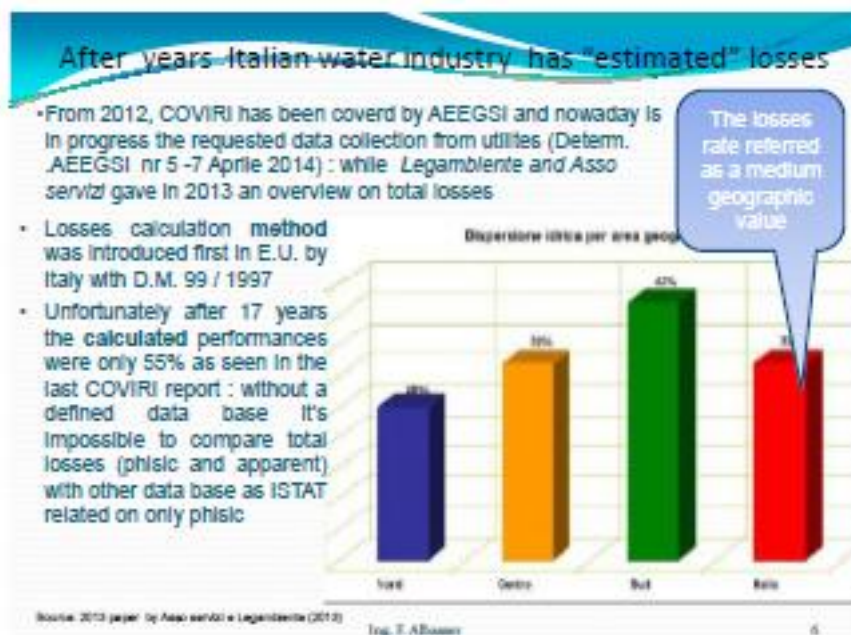
(4)Conclusions

Operational excellence is the key to find the needed resources .

The required new drives to solve the problem can be summarized in these items: technology use from smart metering, up to date demand data, redifined planned investments plan, market financial instruments support.

Regulatory hand is essential to trigger quantum leap and steer performance efforts.

All this approach appears more than an opportunity for italian utilites, perheps a “must” for future sostenibility.



Author

Francesco Albasser – Born in 1951, has classic degree. Developed a Mechanical Engineer laurea at Politecnico di Milano in 1976, and master in MIP school in 1984 at Politecnico di Milano MIP.

He has got many experiences in utilities: starting as team leader in AEM Milan and then as General manager in small (AUSM Lecco) and medium Italian utilities (ACSM Como), involved in both services water & energy and then only in water service (CAP Milano). Then was managing director in Verbania in (Conservco).

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