



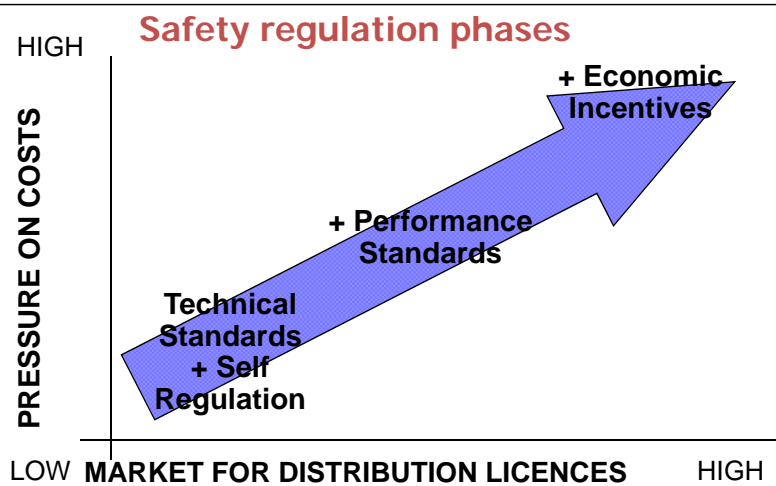
ECONOMIC INCENTIVES TO PROMOTE SAFETY IMPROVEMENT IN GAS DISTRIBUTION: THE ITALIAN EXPERIENCE

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Safety regulation in Italy : first stages

- **Stage 1 (until 2000): safety regulation is based on technical standards and rules**
- **Stage 2 (2001-2003): standards of performance**
 - measurement rules for leading safety and continuity factors (since 2001)
 - for each distribution system, safety and continuity indexes for each distribution plant (since 2002)
 - overall standards (since 2002)

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Safety regulation in Italy : regime

- **Stage 3 (2004-2008): safety regulation is based on both standards and economic incentives**
- **Stage 4 (2009-2012): the new safety incentive regime (bonuses and penalties)**

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THE CONSULTATION PROCESS

- incentives system has been introduced after an in-depth consultation process with all stakeholders
- the consultation process explored in detail the safety relevant activities to find the pros and cons for their possible use as the basis of the safety incentives
- the revision of the regulation after the first period of implementation was included in the three-year trial of the methodology of Regulatory Impact Analysis (RIA) introduced with the Italian Regulator resolution 28 September 2005, No 203/05



REGULATORY IMPACT ANALYSIS PROCESS

- RIA is a methodology aimed at strengthening the publicity of the reasons behind the regulatory interventions through a deep communication process
- the procedure was based on a preliminary reconnaissance phase and two consultation phases for the collection of stakeholders comments
- for each of the most important assumptions the Regulator made options subject to qualitative assessment
- the stakeholders were informed of activities and plan, published in each of the consultation documents and regularly updated in response to each consultation



CRITERIA FOR THE DEFINITION OF ITALIAN REGULATED SAFETY INCENTIVES

- **simplicity:** data and formulas of easy understanding and application
- **controllability:** to facilitate the function of Italian Regulator control on data reported by distributors
- **effectiveness:** methodology based on activities related to safety that are crucial for effective improvement
- **certainty:** the methodology is transparent and based on predefined criteria

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ITALIAN SAFETY INCENTIVE REGIME

- **targets**
 - more odourization level measurements
 - leakages reduction (convergence)
- **separate economic incentives for:**
 - additional yearly gas odourization level measurements
 - leakages reduction (annual number of leaks pointed out by customers)
- **economic incentives are not recognized in case of incident due to distributor's liability**

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A LONG-TERM PROCESS

- **2006-2008: first application and testing stage**
 - voluntary participation
 - only bonuses
 - results' assessment at the end of 2008
- **from 2009: definite incentive scheme**
 - compulsory regime
 - bonuses and penalties

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RESULTS OF THE FIRST 2 YEARS: 2006

- 10 gas distributors have requested incentives (8 of them with more than 100.000 consumers connected)
- 564 Distribution systems with incentives (Nr of costumers involved: 4,4 millions)

Component	Nr. Systems	Incentives
Odourization	564	> 1,1 M euro
Leakages	178	> 2,2 M euro

- in 2006 the total number of distribution systems in Italy is about 3.000 with more than 19 millions of consumers

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RESULTS OF THE FIRST 2 YEARS: 2007

- 14 gas distributors have requested incentives (10 of them with more than 100.000 consumers connected)
- 1043 distribution systems with incentives (Nr of costumers involved: 8,7 millions)

Component	Nr. Systems	Incentives
Odourization	1.043	> 2,5 M euro
Leakages	212	> 2,5 M euro

- in 2007 the total number of distribution systems in Italy is about 3.000 with more than 20,5 millions of consumers

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IMPROVEMENT OF SAFETY PERFORMANCES

- the new incentive scheme has stimulated the improvement of safety performances
- for the distributors rewarded with incentives, it has been found:
 - a reduction of the number of gas leakages reported by third parties of more than 20% in 2006 and about 4% in 2007 compared to the average of the reference period 2003–2004
 - an increase of the number of gas odorization checks: the effective number of odorization checks has exceeded about 5 times in 2006 and about 4 times in 2007 the minimum mandatory level

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THE IMPORTANCE OF CONTROLS

- data on safety performances are provided by distributors
- economic incentives are recognized only after suitable controls
- data must be recorded in a complete and satisfactory manner, according to the measurement rules
- a preliminary electronic data processing is conducted by Regulator's offices on all the distributors
- some distributors, chosen on the base of definite criterias, are audited on site by Regulator's inspectors



CONCLUSIONS

- an incentive scheme encourages distributors to exceed the mandatory requirements and aim for excellence
- economic incentives must be recognized only after specific audits
- incentive regulation greatly benefits from a gradual approach and an open dialogue with all interested parties
- implementation and test of a robust safety data measurement system are required
- adequate incentives can ensure that cost cuts are not achieved by lower quality and safety



If you want to get further detail...

- Grossi A., Altrocchi A. (2009) economic incentives to promote safety improvement in gas distribution: the italian experience, Full paper, 24rd World Gas Conference
- Italian Regulator resolutions, consultation documents and technical reports, available in Italian language on the website www.autorita.energia.it

...thank your for your attention!

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