

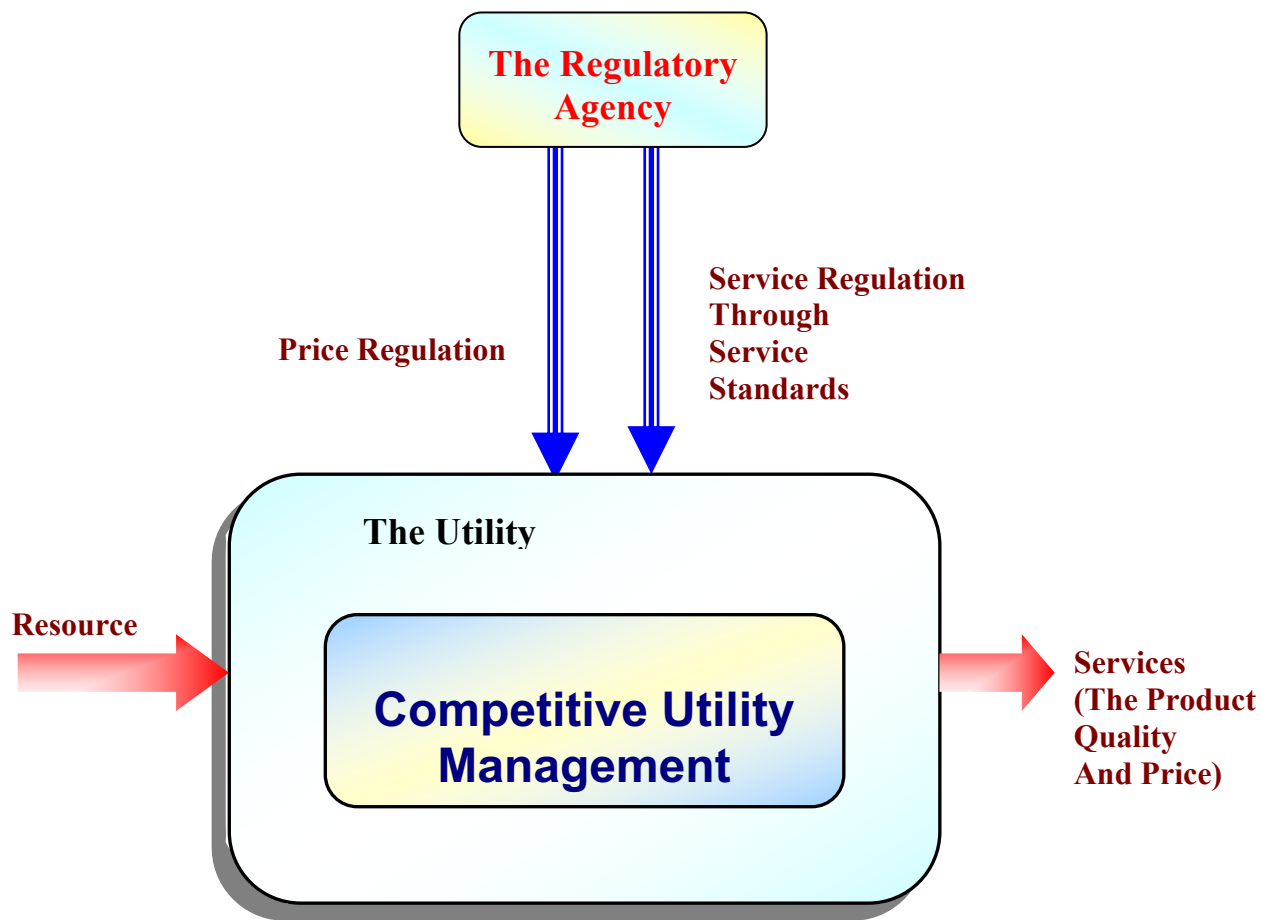
Quality of Service Regulation

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Utility Obligation

- ❑ The utility has “the obligation” to render safe and adequate service.
- ❑ A reduction in the quality of output or service standards is equivalent to an increase in price.
- ❑ Without adequate quality of service regulation, price regulation may be rendered ineffective; “buyers can be exploited just as effectively by giving them poor or unsafe service as by charging them excessive prices”



Metrics

- Financial Performance
 - Unit Operations
 - Product Performance Metrics
 - System Operational
-

Definitions:

Standards:

The definition according to ISO is:

“Document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.”

Standards could be:

- A “specification; standard
- A guidance standard

A specification is a detailed set of requirements to be satisfied by a product, material, process or system, indicating the procedures for checking conformity of these requirements.

Metric Examples:

Financial Performance Metrics:

- Unit cost of product: LE/m³
- Percent LE billed actually collected
- Total revenue as percent of O&M costs

Product Performance Metrics:

- Water pressure (% property at risk)
- Service interruptions (hrs/year/zone)
- Sewer flooding incidents (% of connected properties flooded)
- Water quality (deviation from a standard)

Unit Operations Metrics:

- Labour hours per unit process
- Energy use per unit process
- Equipment utilization rate

System Operational Metrics:

- Speed of response to customer complaints
- Speed of response to a new service connection

Regulatory Instruments for Service Quality Control

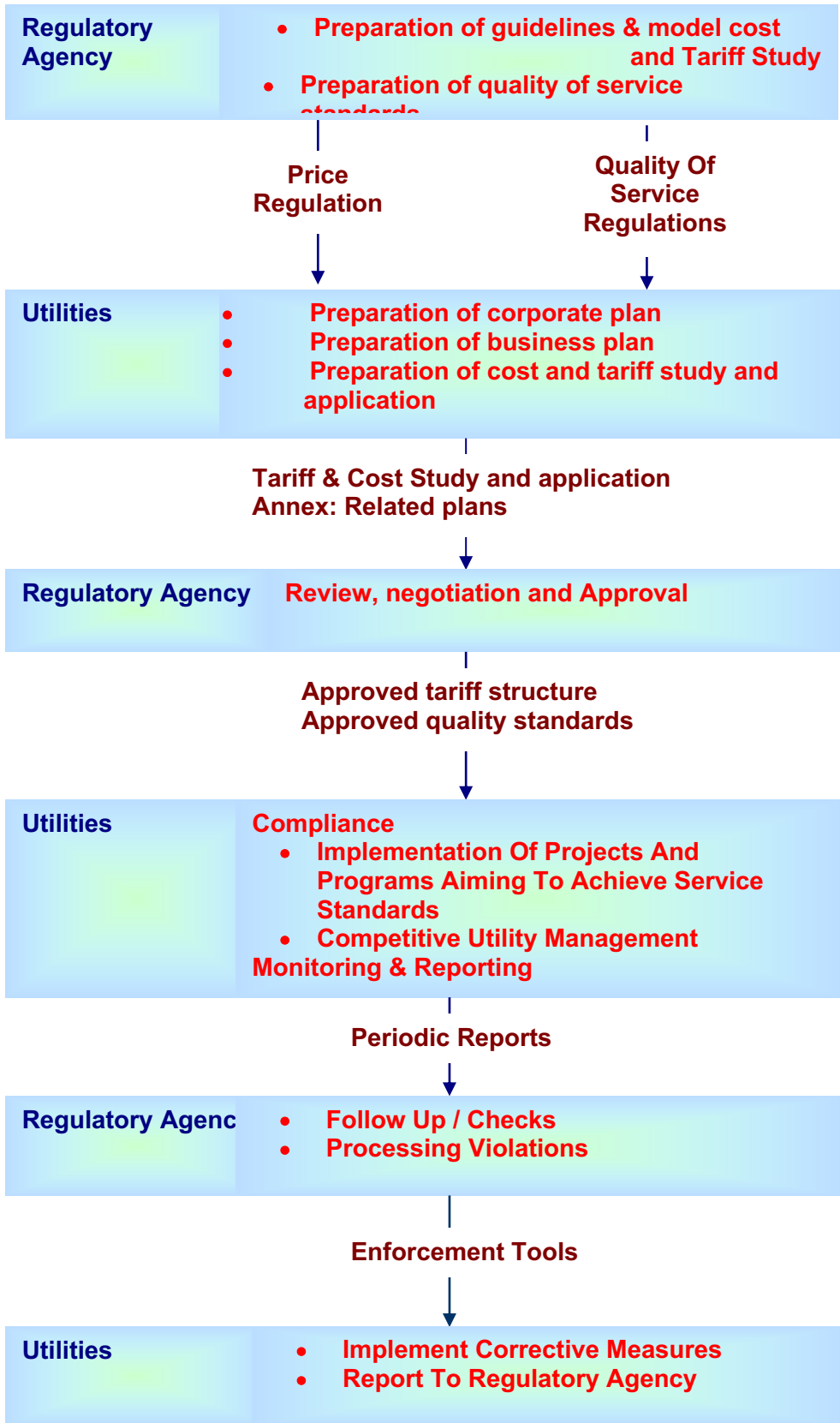
- Aspects mainly determined by managerial efficiency (e.g. speed for response to leaks or other complaints, timely connections and repairs)
- Aspects that primarily depend on capital expenditure (e.g. drinking water and effluent quality, adequate capacity)

Service Quality Regulation Modes:

1. Utility is obliged to monitor, report and publish information on quality performance. The water utility have the legal responsibility to notify the public of any serious deterioration in water quality.

2. Utility is liable and responsible for nuisances and losses to customers caused by poor service.

3. Regulator will incorporate quality measures in price controls.



How Standards Work

- ❑ **Regulator or Technical Group** sets standards
- ❑ **Utility** decides how best to comply
 - ❑ **Utility** collects measures and reports
 - ❑ **Regulator** audits for accuracy of reporting and determines if there has been a violation
 - ❑ **Utility** decides on corrective action when violations occur
 - ❑ **Regulator** reviews and enforces the corrective action

Standard Setting

- ❑ Setting standards is a complex and demanding task
- ❑ It involves cost-quality trade-offs
- ❑ Standards must be: realistic, attainable, well defined, technologically sound and enforceable
- ❑ Standards must be in line with social and economic reality

What Does It Take to Make Standards Work

- ❑ Basing standards on comparable processes
- ❑ Standardized charts of accounts and rules
- ❑ Regular, reliable performance measurement and reporting
- ❑ Follow-up audits
- ❑ Corrective action when standards are not maintained
- ❑ Incentives and penalties based on performance

Standards Development and Administration Would Require the Regulatory Body to Acquire Skills in:

- Technical areas such as
maintenance, utility operations,
management, and financial
management
- Defining and setting standards
- Setting appropriate measures
- Monitoring and auditing
- Review of corrective action plans and
enforcement
- Information processing
- Contract monitoring

Effective Enforcement Requires

- ❑ **Utility** measurement and reporting of their performance against the standard
- ❑ **Utility** identification of the causes of failure to meet standards
- ❑ **Utility** planning and execution of corrective action
- ❑ **Regulator** monitoring and auditing of reports
- ❑ **Regulator** review of corrective actions

To Make Standards Work:

- Raise the overall levels of utility personnel professional training by providing:
 - Technical assistance in problem identification and corrective action planning
 - Training and resources to help utilities carry out corrective actions

- Promote technology transfer perhaps through strengthening existing water and wastewater professional associations