

The Optimization of TICS I in the Convergence Mechanism of Urban Water Management

Authors : M. Macchiaroli, L. Dolores, V. Pellecchia

Abstract : With the recent Resolution n. 580/2019/R/idr, the Italian Regulatory Authority for Energy, Networks, and Environment (ARERA) for the Urban Water Management has introduced, for water managements characterized by persistent critical issues regarding the planning and organization of the service and the implementation of the necessary interventions for the improvement of infrastructures and management quality, a new mechanism for determining tariffs: the regulatory scheme of Convergence. The aim of this regulatory scheme is the overcoming of the Water Service Divided in order to improve the stability of the local institutional structures, technical quality, contractual quality, as well as in order to guarantee transparency elements for Users of the Service. Convergence scheme presupposes the identification of the cost items to be considered in the tariff in parametric terms, distinguishing three possible cases according to the type of historical data available to the Manager. The study, in particular, focuses on operations that have neither data on tariff revenues nor data on operating costs. In this case, the Manager's Constraint on Revenues (VRG) is estimated on the basis of a reference benchmark and becomes the starting point for defining the structure of the tariff classes, in compliance with the TICS I provisions (Integrated Text for tariff classes, ARERA's Resolution n. 665/2017/R/idr). The proposed model implements the recent studies on optimization models for the definition of tariff classes in compliance with the constraints dictated by TICS I in the application of the Convergence mechanism, proposing itself as a support tool for the Managers and the local water regulatory Authority in the decision-making process.

Keywords : decision-making process, economic evaluation of projects, optimizing tools, urban water management, water tariff

Conference Title : ICUWMPS 2020 : International Conference on Urban Water Management, Policies and Strategies

Conference Location : Amsterdam, Netherlands

Conference Dates : November 05-06, 2020