

## Introduction

## Introdução

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According to EU law there are different approaches in the services of general economic interest's organization, namely in the electricity, gas, water and wastewater sectors.

In the energy sector, since 2009, the “third energy package” rules the presence of an independent market watchdogs at country level, and the institution of an Agency for the cooperation of Energy Regulators (ACER). This Agency was established to promote the cooperation among national regulators and solve cross boarder issues. In electricity and gas sector, article 36 of the Directive 2009/72/EC (now article 58 of the Directive 2019/944/EU and article 41 of the Directive 2009/73/EC rules “General objectives of National Regulatory Authority” (NRA). The regulatory authority shall take all reasonable measures in pursuit of the following objectives: the promotion of competitive, secure and environmentally sustainable internal market in electricity and natural gas; the elimination of constraints in electricity and natural gas trade among member states; the creation of an efficient, reliant, adequate, secure and consumer oriented electric and natural gas system; the elimination of barriers to new market entrants; the creation of incentive based model for promoting efficiency through an effective competition, and ensure customer protection; finally the achievement of high standards of universal and public service in electricity supply and natural gas sector.

After the 2009 Directives, NRAs should be able to take decision in national energy sectors and to work with a full independence from any other public or private interests, political or economic clout.

According to OECD (2017)<sup>1</sup>, the protection of regulatory Authorities from undue influence can be achieved by monitoring five main dimensions: i) Role clarity and responsibility (clarity of role and relations in law; outreach to governmental entities; strategic foresight function); ii) Transparency and accountability (performance reporting; transparent engagement; feedback and appeals; code of ethics); iii) Financial independence (funding sources; identification of needs; multi-year budget; autonomous management; external and internal audit); iv) Leadership (nomination; appointment; mandates; conflict of interest; exit process); v) Staff behaviour (recruitment; incentives; salary scales; employment restrictions).

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<sup>1</sup> OECD (2017). Creating a Culture of Independence. Practical Guidance against Undue Influence. April. Paris.

First of all, the legislation should clearly define aims and duties of the NRA, assigning a power consistent with them; then the relationship between NRA and public actors should be defined by law, to avoid any powers overlap and conflict of interests (role clarity). The NRA should account its work, in terms of target achieved, output and outcomes; then, specific procedures should be set in order to assure a transparent stakeholder engagement (transparency and accountability). The achievement of an effective independence depends on clear role for budget assignment and full autonomy of NRA in spending its budget (financial independence). The board must be nominated and appointed according to transparent and accountable procedures, aiming to assure the greatest degree of members' legitimation; also the exiting process has to be developed under specific rules, as the cooling-off periods (independence of leadership). Finally, the internal organization procedures to attract and motivate staff should be based on a transparent performance evaluation system, not only based to monetary incentives, and linked to the system of strategic objectives set by the board plan; the integrity and freedom of action of staff member could be achieved also with employment restrictions concerning the interaction with regulated operators, and the exiting process (staff behaviour).

Despite this common set of rules at EU level and the mentioned clear definition of independence, European energy NRA often operate with different methods and procedures, and they not always achieve a full degree of independence<sup>2</sup>.

Differently from the energy sector, there isn't a common governance framework in water and wastewater sector (WWS) at European level. According to the objectives of environmental protection, existing EU law mainly regulates technical requirements and defines the proper managerial approaches to reduce risks of water contamination and pollutions caused by effluent discharges.

This implies a wide heterogeneity on how WWS is regulated in Europe. Several countries of central and northern Europe (e.g. Germany, Austria, the Netherlands, Norway and Finland) have a locally based model, with a power of regulation exerted by local authorities within a general framework set at national level and concerning common rules and objectives for the sector. In the rest of European countries there are two different models: i) ministerial administrative bodies (Greece, Belgium Flanders and Spain) or regulation by contracts (France); ii) independent/autonomous regulators, i.e. mono sectorial regulation on water sector or environment water and waste (UK, Portugal); competition authority (Denmark, Estonia); NRAs on energy (Albania, Bulgaria, Republic of Ireland, Leetonia, Lithuania, Malta, Italy, Hungary).

WAREG, the European association of water regulators, gathers this last group of regulators, with the aim to: monitor the evolution of the sector in each country; exchange best practices in terms of regulation among members; support members and non-members states to design their own system of rules; promote water regulation in EU and national institutions. The umbrella of WAREG<sup>3</sup> shows a wide variety of organizational approach to the regulation of WWS, including utilities regulators, ministerial administrative bodies,

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<sup>2</sup> CEER (2016). Safeguarding the independence of regulators Insights from Europe's energy regulators on powers, resources, independence, accountability and transparency. December. Brussels.

<sup>3</sup> WAREG (2015). Institutional regulatory frameworks. A comparative assessment. Available at <https://www.wareg.org>

and competition authorities; the association gathers regulators with a different degree of independence and scope of action, joining ministerial agencies and full independent regulators, pure water NRAs and multisectorial authorities.

In order to investigate, justify and support this variety of solutions in water regulation, WAREG refers to the so called “contingency approach”. The contingency approach is followed to design a new structure process, adapting its features to the external context (input) and to the targets which should be achieved. According to contingency theory of organizational science, the Water regulation in a country depends on specific exogenous variables like cultural/economic environment (economic growth, degree of market liberalization, presence of private investors, attention to water rights and to the environment) and its WWS (size of utilities, ownership, number of operators). WWS governance could impact in expected outcomes (investments growth rate; trend of tariff; variation of quality indexes; access to water; firms ‘failures; citizens ‘perception of the sector). Following this theory, WAREG investigates how regulators can improve or better design their organization through this scientific method.

The Covid 19 pandemic has reinforced the relevance of guaranteeing the fulfilment of obligations of public service, including universality, affordability and transparency, which are mandatory in services of general economic interest. These requirements are critical to avoid exclusion and to allow the adoption of alternative forms of work and education that also prevents the dissemination of the virus in the community. In addition to the immediate measures imposed by governments and regulators, such as non-disconnection safeguard or deferred payment, the pandemic situation and the subsequent economics effects will certainly require the discussion concerning new challenges for economic regulation.

This special issue of *Notas Económicas* on “Regulatory problems and solutions in services of general economic interest” is designed to be a tribute to Professor Adelino Fortunato.

The economic regulation of utilities is one of the research and teaching areas of Adelino Fortunato, Professor of Economics and researcher at the Center for Business and Economics Research (CeBER) at the University of Coimbra. The articles included in this special issue represent contributions from authors who share common interests on the topic of economic regulation.

In the article “Is there still a role for independent regulators?” José Amado da Silva and Eduardo Cardadeiro address the legitimacy of independent regulators in the democratic organization of the State. They discuss legitimacy and its role inherently to independence and in accordance with the requirements of legitimacy and accountability. The authors define the conditions for regulators to be appropriately integrated in State institutions suggesting a triangle to support independent regulators, whose apexes are Transparency and Participation, Adequate Resources, and Appeal and Prompt Judicial Response.

Focusing on sector-specific regulation, Vitor Marques presents the evolution of electricity regulation in Portugal, since the beginning of the century in his article “Perspectives for the electricity sector regulation in the context of energy transition”. By identifying the main technological and organizational changes or environmental requirements as well as taking into account the increased scrutiny on regulators’ action that has taken place in recent years, the author presents key drivers and challenges for the regulation of the electricity sector in Portugal in the European context.

Still in the context of the electricity sector, in the article “Tariff deficit, excessive rents and privatizations”, João Confraria provides a reflexion on the welfare impacts from several governments’ policy options of in favour of a tariff deficit. Additionally, the author addresses the rationale for the excessive rents, specifically in terms of efficiency or in terms of their potential to increase privatization revenues from strategic segments of the Portuguese energy sector. This is an important contribution to the public and scientific debate in Portugal regarding excessive rents.

The article by Blandina Oliveira and Adelino Fortunato, “Effect of intermittent renewable energy’s generation on electricity prices: A Literature Survey”, is a contribution focused on the apparent contradiction between the decrease on generation costs from renewable energy, on the one hand, and the increase of retail electricity price, on the other hand. Based on the literature review the authors found evidence for the merit-order effect, meaning that an increase in intermittent sources generation would reduce the spot electricity market price. Concerning the scarcer studies applied to retail market, no consensus was found about the sign of the impact of the support of renewable energy sources over retail electricity price. This approach, underlining the trade-off between the need to contribute to the promotion of environmental goals and ensure the affordability of electricity services, exemplifies the complexity inherent to the regulation of the electricity sector.

Rita Martins, Micaela Antunes, Patrícia Pereira da Silva and Adelino Fortunato, deal precisely with affordability in the energy sector in the article “Energy social tariff: origin, prevalence and lessons”. The authors address the rationale and impact of social tariffs for energy services, to subsequently derive recommendations regarding their extension to other utilities such as water or telecommunications. The authors also emphasize the relevance of social tariffs in the context of the social and economic crisis brought about by the Covid-19 pandemic to ensure that no one is left behind due to unaffordable essential services.

More oriented to environmental concerns, Daniel Murta’s study “Autonomous Vehicles and Public Transportation” contributes to the ongoing economic debate on the future of transportation. It provides an analysis on the broad opportunities and challenges for welfare from autonomous vehicles. Focusing at the same time on potential contradictions such as discouragement from the use of public transportation, which might have negative effects on congestion and pollutant emissions, it reinforces the need for support and for the regulation of public transportation.

The last article deals with sector organization in the Portuguese water industry, one of the components of its structural regulation. Sérgio Hora Lopes discusses “The aggregations in the Portuguese water industry – the case of retail service operators” following the literature justification for integrations. The focus is on the aggregations which occurred in the last decade in Portugal. Contrarily to most integration processes which took place in the late 1980’s until the middle of 2000/2010, the most recent are mainly aggregations of retail operators. Moreover, the most recent integrations correspond to aggregations of smaller operators in terms of the population served and the area covered. According to the author, the different contexts under which aggregations occur set equally different conditions for their success.