

A Brief Guide to Utility Regulation.

Introduction.

The gas and electricity industries combine naturally monopoly segments with potentially competitive activities. Production and supply are potentially competitive while transmission and distribution constitute natural monopolies. In the past telecommunications networks also had natural monopoly characteristics. While technological developments have changed this, rival networks still need to interconnect with each other in order that their customers can communicate with subscribers of other networks.

Historically in Ireland and many other European countries the public utility industries operated as public sector monopolies. This was because the government's response to the natural monopoly problem was to extend the monopoly into the upstream production and downstream supply markets thereby establishing vertically integrated monopoly public utility firms. In the United States private ownership of such industries was the norm with the potential for abuse of market power, due to natural monopoly, being dealt with by regulation. Since the late 1980s, competition has been introduced in public utility industries throughout the world.

The Case for Regulation.

The case for a regulatory regime in public utility industries arises because the incumbent firm:

- might refuse access to the transmission and distribution network to rival firms or set prices for access so as to hinder or prevent entry;
- might abuse its market power by charging excessively high prices for its output;
- might abuse its market power in other ways.

Access Pricing.

When the network operator is part of a vertically integrated firm which is also competing in the provision of services over the network it has obvious incentives to deny access to the network to its rivals or to provide it on less favourable terms than those it applies to its parent. Correspondingly new entrants will naturally seek to gain access at as low a price as possible. Disputes about access charges frequently arise when utility industries are opened to competition. In telecommunications, regulation of access pricing may be necessary even when there are competing local networks because firms may agree high access charges to interconnect with each other's network as a means of facilitating collusion. Various alternative mechanisms have been employed for setting access charges. All access-pricing rules involve difficult and detailed economic analysis. The regulator requires highly detailed information about the operations of the incumbent firm and must be prepared to undertake extensive monitoring of its activities.

An independent network operator has no incentive to discriminate against new entrants. Vertical separation of the natural monopoly elements from the potentially competitive segments can therefore greatly simplify the task of regulating access charges. The issue is whether economies of scope resulting from vertical integration outweigh the possible gains from separation.

Output Pricing.

Regulating output prices is also complicated by the fact that the regulated firm has more information than the regulator. Price-cap regulation (the CPI – X formula) is designed to overcome this by providing incentives for regulated firms to provide information to regulators. The regulator sets a price cap for the firm’s output. The firm can increase its profits by cutting costs. However, this provides the regulator with information on the scope for efficiency gains which can be incorporated into subsequent price reviews. Price capping has proved far more complex than originally envisaged.

Regulatory Failure.

Regulation was traditionally justified on the grounds of market failure. However, the potential for regulatory failure is now widely recognised.

Regulatory agencies are prone to capture by regulated firms and the state bureaucracy. Information asymmetries mean that regulators are heavily reliant on regulated firms for information. Thus, over time regulators tend to identify with the regulated industry and end up defending it rather than policing it. Similarly, once established, regulatory bodies tend to perpetuate and enlarge their activities, and this may also give rise to regulatory failure. In order to ensure that customers of public utility industries enjoy the benefits which competition can produce measures are needed to limit the possibility for ‘regulatory failure’.

International experience shows that regulation is not a substitute for and will not deliver the benefits which can accrue from competition. In fact, certain forms of regulation may even hinder the development of competition. In those circumstances the objective should be to allow competition to as great an extent as possible which, of itself will reduce the need for specific forms of regulation.

Liberalisation of Irish Gas and Electricity Markets.

The Irish gas and electricity markets were gradually opened up to competition in stages. Initially the Commission for Energy Regulation (CER) regulated prices, but price controls were gradually removed as the CER concluded that a sufficient level of competition had developed in the various energy markets. The regulator has the power to re-introduce price controls if it believes that competition is not working effectively to keep prices down.

The key stages in the introduction of competition into the Irish gas and electricity markets are outlined in the following table.

Key Stages in Liberalisation of Irish Energy Markets.

Year	Electricity	Gas
2002	February Market for large industrial customers opened to competition.	
2005	February. Market fully open to competition.	
2007	Single All-island Electricity Market developed.	July. Market fully opened to competition. Flogas enters residential market.

2008	Airtricity enters residential market.	Introduction of PAYG meters for financial hardship cases.
2009	BG Energy enters residential market.	
2010	October. Removal of price controls in non-residential market.	May. Airtricity enters residential market.
2011	April. Removal of price controls in residential market. October introduction of PAYG meters for financial hardship cases.	April. Electric Ireland enters residential market. October. Removal of price controls for non-residential market.
2012	January. Prepaypower enters residential market.	
2013	July – Pinery enters residential market.	
2014	January – Energia enters residential market.	January – Energia enters residential market. July – Removal of price controls in residential market.
2015	Panda Power enters residential market.	
2016	Flogas enters non-residential market.	PrePayPower licensed to enter residential market.
2017	Be Energy enters residential market.	

Source: Commission for Energy Regulation (CER), *2016 Electricity and Gas Retail Markets Annual Report*.