

## Regulatory Objectives and Pricing Principles

John Fallon, Michael S Blake and Daniel Kelley\*

Economic regulation of firms with market power essentially focuses on regulating prices, whether directly or indirectly. Economists typically focus on the economic efficiency aspects of regulation. However, regulators are also usually required to follow a number of social objectives set by legislation.

Government mandated objectives such as ecologically sustainable development, economic and regional development, and interests of consumers can often be addressed in standard economic efficiency terms. However, regulators may also be required by their enabling statutes to specifically consider broad social welfare and equity objectives.

From a welfare-economics perspective, some of the objectives can overlap, or even be redundant, and some can be in conflict, particularly given the limited number of policy instruments available to the regulator. However, there is typically no formal legislative guidance on how priorities should be set for specific regulatory objectives. But it is important that regulated firms, their customers, and other stakeholders understand the broad principles used by regulators to apply the regulatory tools at their disposal to achieve the objectives of legislation.

Pricing principles developed and published by Australian regulators are mainly concerned with the relationship between prices and costs. There has been relatively little explicit consideration of broader social matters that are specified in legislation. These issues can be subsumed under the broad category of 'fairness'.

The standard response by many economists of how to address fairness is to note that it requires value judgements and should therefore be left to elected leaders to decide on, and also should be addressed separately through explicit social policies.

However, ignoring fairness considerations in the implementation of economic regulation could result in regulation with little public support. In addition, the Tinbergen (1952) rule, that there must be at least one instrument for each policy objective, might not be realistic in Australia's federal system or when there is uncertainty about impacts (Ng, 1984).

Recognising, assessing and addressing any trade-offs between efficiency and fairness goals adds credibility to regulatory decisions. Moreover, achieving fairness can, in some cases, be a prerequisite for, or at least support, the achievement of the efficiency goals of regulation.

Issues relating to regulatory governance also have economic efficiency and fairness dimensions. Both investors and consumers need to have confidence that the regulatory system operates fairly in addressing their different concerns.

The Queensland Competition Authority (QCA, 2013) has released a Statement of Regulatory Pricing Principles that canvasses these issues and presents principles and guidance on relevant high level pricing principles. This paper draws on the QCA report but does not necessarily reflect the views of the QCA.

The paper begins with a discussion of the economic efficiency goals of regulation. Unlike many prior pricing-principles discussions, issues surrounding the allocation of risk are incorporated.

### Economic Efficiency

Economic efficiency is attained when no feasible changes in prices, production or consumption can benefit society as a whole. Achieving economic efficiency is consistent with maximising national income.

### Contents

<b>Lead Article</b>	<b>1</b>
<b>From the Journals</b>	<b>9</b>
<b>Regulatory Decisions in Australia and New Zealand</b>	<b>13</b>
<b>Notes on Interesting Decisions</b>	<b>19</b>
<b>Regulatory News</b>	<b>21</b>

\* Dr Fallon is a Director and Dr Kelley and Dr Blake are Principal Analysts at the Queensland Competition Authority. We are grateful for comments received from Professors Martin Cave and Stephen King on an earlier version of this paper. They are not responsible for any remaining errors.

## Aspects of economic efficiency

There are three aspects of economic efficiency: allocative, productive and dynamic. Allocative efficiency means that, given an initial allocation of scarce resources, production and consumption are optimal in the sense that no changes can be made that would increase the total welfare of the community as a whole. Productive efficiency means that goods and services are produced at the lowest possible cost. Dynamic efficiency refers to any aspect of economic efficiency with a time dimension, including the timely and profitable introduction of: new products; services; and cost-reducing innovations. Allocation and management of risk are also important aspects of economic efficiency.

Economic efficiency is achieved in the economist's competitive market model. However, competitive markets, even 'workably competitive' ones, are often not possible. From a welfare perspective, the overall goal is economic efficiency. In cases where large sunk costs preclude competitive markets, the focus needs to be on achieving economic efficiency rather than on pursuing a competitive benchmark.

Efforts to achieve the three types of efficiency often need to be prioritised. Improvements in dynamic efficiency can generate larger gains than improvements in productive efficiency. Technology can create new services or markets that generate a great deal of economic value. At the same time, improvements in productive efficiency can have a large impact on total welfare because the cost savings apply to all of the units sold. The welfare gains from improvements in static allocative efficiency are focused on marginal units rather than the entire range of output. These issues and potential trade-offs are best assessed on a case-by-case basis.

There can also be trade-offs between allocative and dynamic efficiency. Arguably, monopoly provides a better environment for funding research and development that leads to technological progress. This hypothesis is controversial. Less controversial is the notion that entrepreneurs should be allowed to reap the benefits of risk-taking by allowing high profits when risky investments succeed. Returns on investments in new services, or introduction of new technology, may merit different treatment relative to embedded investments with low risk due to existing regulatory arrangements (see QCA, 2014).

The primary rationale for regulation of infrastructure industries is to prevent monopoly abuse. Therefore, it is reasonable that consistency with increasing overall economic efficiency should be the primary goal. Where there are trade-offs between social and economic efficiency goals, there would have to be well justified non-efficiency based reasons as to why that policy should be supported. The efficiency

losses of pursuing alternative goals should be quantified where possible in order to assist regulators in evaluating the alternatives.

## Efficient pricing

In a competitive market, economic efficiency can be achieved by setting prices equal to short-run marginal cost, and excess profits cannot be sustained because there are no sunk costs and no other entry or exit barriers. In infrastructure businesses there are often unexhausted economies of scale and large sunk costs so that marginal-cost pricing will not be sufficient to finance efficient investment, and excess profits can be sustained because of entry barriers associated with sunk costs.

Thus a critical regulatory principle is that prices charged by regulated firms need to be sufficient to generate adequate revenues to provide appropriate incentives for investment and efficient operation, but not so high as to generate profits in excess of efficient financing requirements. The term 'revenue sufficiency' (or 'revenue adequacy') is used to describe this principle.

Multi-part tariffs can assist in balancing the objective of allocative efficiency (requiring prices to reflect short-run marginal cost) and dynamic efficiency (requiring revenues that are sufficient to recover efficient investment cost). With a two-part tariff, the fixed part of the tariff, which applies to all customers, can be used to recover fixed costs, while the variable part can be set at marginal cost. High-volume users end up paying less per unit than low-volume users.

Multi-part tariffs are a form of price discrimination. However, greater economic efficiency is achieved because consumers make marginal purchasing decisions based on the variable price, and a greater quantity is purchased relative to the uniform-price case. A downside is that consumers who would purchase only limited quantities of the service might choose not to participate in the market (and avoid the fixed charge), even though they are willing to pay the marginal cost. This can be addressed by adjusting the fixed charge, provided the administrative costs of doing so are not too high.

More sophisticated price discrimination is possible. The Ramsey pricing, or inverse-elasticity, rule charges according to the relative sensitivities of demand to price changes. Those with the highest sensitivity to price, pay the lowest price. This approach obviously requires detailed information about consumer demand.

These pricing tools must be applied with care. Price discrimination could also enable a monopolist to over-recover its costs. Furthermore, even if a firm does not make excess profits, price discrimination might conflict with certain policy and regulatory objectives – depending on how it is applied. In

particular, where a vertically integrated monopolist is selling an intermediate input ('access') both to itself and downstream rivals, price discrimination may be prohibited due to concerns that downstream market competition will be adversely affected. Finally, use of these tools can raise equity concerns if the price discrimination results in lower-income individuals paying higher prices.

## Short-run versus long-run marginal cost

Competitive markets lead to economically efficient outcomes because prices reflect short-run marginal cost. However, short-run marginal cost is difficult and sometimes virtually impossible to measure. Moreover, in the context of economic regulation, marginal-cost pricing may not ensure revenue sufficiency. Also, in some cases, it can be more important to send pricing signals that lead to efficient long-term investment than it is to reflect short-term movements in supply and demand.

Finally, depending on the technology and characteristics of market demand, prices based on short-run marginal costs would probably have to be recomputed fairly frequently. They might also be quite volatile. In particular, prices could rise sharply as capacity constraints are approached. Both investors and end users may also have a preference for stability, although price stability does not necessarily provide the best pricing signals, and some users may prefer some price variability.

Regulators often use some measure of long-run cost in setting regulated firm prices. Long-run marginal costs measure the cost of producing the last unit when all inputs are variable. Long-run incremental costs measure the cost per unit of a larger increment. For example, long-run average incremental cost (sometimes referred to as total service long-run incremental cost (TSLRIC)) measures the forward-looking per-unit cost of supplying the entire output for the defined service.

The economic efficiency properties of long-run marginal cost can be questioned. If there is a capacity constraint, the correct cost-based price measure to ensure allocative efficiency is short-run marginal cost, defined to include the marginal cost of congestion (the cost of not serving the marginal user). If long-run marginal cost exceeds the short-run congestion-augmented marginal cost, price will be set too high from an allocative-efficiency perspective. If long-run marginal cost is less than short-run congestion-augmented marginal cost, price will not be high enough to ensure efficient capacity allocation. And when there is excess capacity, long-run marginal cost is likely to exceed short-run marginal cost. In this case, prices based on long-run marginal cost would lead to under-use of capacity.

To achieve economic efficiency, short-run marginal costs also need to be interpreted as social costs, so that the full cost to society related to the marginal unit or incremental decision is used. This enables certain externalities to be accounted for.

There is no clear rule for deciding whether short-run marginal cost or long-run cost should be used in setting prices. There is also the issue of whether the long-run cost of supplying the last unit or some other increment should be used to measure long-run costs. The answers will depend on circumstances and trade-offs in terms of: various aspects of efficiency; practicality; and, in some cases, fairness.

## Economic efficiency, the allocation of risk and incentive regulation

There are numerous definitions of risk, and there is a distinction between risk which can be quantified and uncertainty which cannot be quantified (Knight, 1921). Risk is defined here as in finance theory as deviation from an expected value.

It is relevant to consider how the presence of risk alters the basic competitive-market paradigm. Specifically, the paradigm must be extended to define goods not only according to their physical properties, but also according to the possible states of nature in which they can be delivered or consumed (Arrow and Debreu, 1954). If there is a market for every state-specific, or contingent, claim, then markets are said to be 'complete'. If markets are complete and competitive, then risks are allocated optimally among participants.

Achieving economic efficiency remains the overarching welfare objective in a world with risk. However, when markets for the allocation of risk are incomplete, regulatory arrangements need to consider the optimal allocation of risk. Key issues that need to be addressed in a regulatory setting include: the inability of investors to diversify away some risks; and information problems related to understanding preferences for risk and ability to manage or adjust to risks. Firms with market power will have an incentive to pass on risks and avoid revealing their ability to deal with risk.

In relation to diversification, the standard Capital Asset Pricing Model (CAPM) that is used for determining allowed rates of return assumes that only non-diversifiable risks are relevant. Diversifiable risks include many risks that are specific to some firms, but not to others. The CAPM also assumes that investors are only concerned about the mean and the variance of returns.

The application of the CAPM greatly simplifies the pricing and allocation of risk. This is because it specifies conditions under which it is efficient to fully compensate investors for relevant risk, and it can be readily implemented. However, there is still a need to



determine the relevant firm-specific beta parameter in the CAPM (that is, the sensitivity of the firm's returns to overall market returns). The beta parameter can also be affected by the form of regulation, and in particular, whether regulation is closer to cost-of-service or price-cap regulation (Blake and Fallon, 2012).

In practice the regulatory arrangements allow firms to pass-through many costs that might be diversifiable in competitive markets, but are not considered diversifiable for investors in regulated markets. This raises the issue of optimal sharing of risks between the firm and its customers.

A simple rule that is often quoted is that risk should be allocated to the party that is most able to manage it. However, this rule is more akin to an 'absolute advantage' principle, rather than a 'comparative advantage' principle, in that it ignores preferences and opportunity costs.

A more robust principle is that the risk should be shared in proportion to the degree of risk tolerance (Gollier, 2004). Risk tolerance encompasses both preference for risk and ability to manage risk. Unless one or more parties is completely averse to a risk, then risk should be shared in some proportion. However, it is often the case that, rather than sharing risk, extreme allocations occur, whereas an efficient outcome would usually involve some degree of risk-sharing, depending on risk tolerances.

Another principle is based on causal responsibility – a party that is causally responsible for a risk as a result of a certain action should normally be responsible for assuming the liabilities that arise.

In allocating risks in a regulatory context, there is also a need to take account of the extent to which the allocation will affect incentives to operate and invest efficiently.

Schmalensee (1989) investigates the optimality of different forms of regulation when there is: moral hazard in the context of the firm's effort to reduce its per-unit costs, specifically the regulator cannot observe the cost-reducing effort of the firm; and the possible occurrence of exogenous shocks (positive or negative) to the firm's costs. Schmalensee's model assumes that the regulator sets the price to maximise either the expected consumer surplus or the total surplus, subject to a non-negative profit constraint.

Schmalensee obtains several important results that can be generalised in the following way. First, fixed price caps provide superior incentives to the firm to exert effort to reduce its costs, but this prescription is, in general, only optimal when there is little, or no, risk. With risk, if the regulator holds the regulated price fixed to provide the firm with incentives to reduce its costs, then the firm cannot change the (fixed) price to respond to realisations of the cost

shock. Therefore, the riskier the firm's operating environment, the higher the regulator must set the price cap in order to ensure the financial viability of the firm.

Second, as risk increases, some degree of cost pass-through is optimal because, the larger the variability of actual costs, the higher the social cost of holding the price-cap fixed. The implication is that it is important for price to track cost when cost is highly volatile. However, in general, full pass-through of costs is not likely to be optimal due to the adverse incentives that would be created for cost reduction.

## **Fairness**

Regulators are typically required to consider a variety of social-policy criteria when making regulatory judgements. Regulatory pricing principles that have been developed by regulators usually acknowledge these social goals, but do not provide concrete guidance on how to address them when making pricing decisions.

## **Definition**

Social policy, equity and related issues can be considered under the broad heading of 'fairness'. The fairness concept is difficult to define and describe, and depends on the perspectives of the individual, but it encompasses traditional social policy and equity concerns.

The lack of an objective definition of fairness has not prevented use of the term in legislation, and does not absolve regulators from making decisions that require a determination about what is 'fair'.

A number of aspects of fairness are relevant for economic regulation. Many aspects of fairness can be addressed in regulatory decisions without impacting adversely on economic efficiency. In addition, adopting a fairness perspective may facilitate improvements in economic efficiency in some cases. However, there are also cases where the achievement of a particular social goal has an economic efficiency cost.

## **Social norms and behavioural economics**

In some situations, social norms can be used to determine what is considered fair. Social norms are 'the customary rules that govern behaviour in groups and societies' (Stanford Encyclopaedia of Philosophy, 2011).

In the realm of business and regulation: norms can be difficult to pin down; are likely to evolve over time; and do not necessarily exist for every real-world situation. As a consequence, there are unlikely to be 'hard and fast' rules for the application of fairness issues to decision-making by regulators.

More recently, the fields of behavioural and experimental economics have contributed to the analysis of fairness in economics including the role of social norms. It is now well established that many individuals modify their economic behaviour if they consider an outcome to be unfair. There is also ample evidence that suggests what is considered to be fair is highly dependent on context. Other important contextual parameters include perceived need and prior investment of effort.

Fairness is a relative rather than an absolute concept. If the terms and conditions of supply of a utility service change significantly, for example, some customers now have to pay significantly more for the same thing, there is a good chance that this will be seen as unfair. In other words, the status quo is the benchmark against which fairness is assessed. The literature on empirical and experimental economics suggests there is a range of circumstances in which some outcomes are clearly perceived as unfair in terms of a community standard, but others that are not, including some where there are changes to the status quo.

A central concept in analysing fairness of actions is the reference transaction (Kahneman, Knetsch and Thaler, 1986). Behavioural economics research has shown that both customers and suppliers feel entitled to the current prices and terms of the transaction. Arbitrary changes are viewed as 'unfair'. The key finding of this research is that, if changes can be made to reference transactions that are considered unfair, economic decisions are affected. Faced with uncertainty that a reference transaction will not be honoured, both firms and customers may choose not to transact.

An example of a relevant reference transaction is the terms and conditions of access to infrastructure from an initial contract. If there is a perception that there could be a material change in these conditions in the future, including when contracts are being extended or re-negotiated, critical infrastructure investments by both access seekers and access providers might not be made as a result. A relevant hypothetical-reference transaction is how prices would be set before sunk investments were made by either an access provider or an access seeker.

Seen in this light, this aspect of 'fairness' in dealing with changes to reference transactions is critical to achieving economic efficiency.

### **Congruence with economic efficiency**

There are many cases where efficient prices can also be described as 'fair'. Setting prices that reflect the cost to society of producing a good or service is fair in the sense that lower prices would imply that the beneficiary is not paying a fair share. Prices above

cost imply that the producer is receiving a benefit at the expense of the consumer.

### **Common costs and fairness**

The problem of the allocation of common costs is also often addressed by methods that are linked to some concept of 'fairness'. This can be because the allocation of common costs might have no well-defined or practicable economic-efficiency basis.

Economists have sought to address the common cost allocation problem in a rigorous way by employing 'axiomatic cost-sharing principles'. Desirable principles that an allocation of common costs should satisfy are specified as axioms. Fairness considerations are often invoked as a basis for one or more of the cost-allocation axioms. Allocation rules that satisfy the axiomatic principles are then derived in a game-theory framework (for example, Shapley, 1953). One of the key axioms is Aristotle's principle of distributive justice that 'equals should be treated equally' (discussed further below).

The most satisfying approach from an economic-efficiency point of view is to use demand information to allocate costs so that the highest prices are paid by the users that receive the highest value, as indicated by their willingness to pay. This approach is known as Ramsey pricing. The result is to move consumption and production toward efficient levels. However, this approach may not be perceived as equitable, and is also demanding in terms of the information required for implementation.

An approach to cost allocation that has both a fairness and a partial economic efficiency rationale is to identify a set of prices that are 'subsidy free'. Cost allocations chosen by the regulator might generate concerns about fairness if one party believes that it is cross-subsidising another.

Following the seminal work of Faulhaber (1975) on applying cost tests for determining 'subsidy-free' prices, a set of prices is said to be subsidy-free if, for each product and all combinations of products or services offered by the firm, the price generates more revenue than its incremental cost, but less revenue than its stand-alone costs. Where several products are produced, the incremental cost is the change in total cost related to producing the particular product at a given level compared to producing only the other products at given levels. The stand-alone costs of producing a specific product or service are the total costs of producing only that product or service at a given level in isolation from other products.

### **Horizontal and vertical equity**

When regulators are asked to make decisions where there is no clear economic-efficiency basis, the classic notions of vertical and horizontal equity are relevant. The horizontal and vertical equity principles

are, respectively, that individuals in similar circumstances should be treated equally, and individuals in different circumstances should be treated differently, taking due account of their different circumstances. This principle dates back to Aristotle's proportionality principle (the oldest formal principle of distributive justice): 'Equals should be treated equally, and unequals, unequally in proportion to relevant similarities and differences'.

## **Efficiency-equity trade-offs**

There are cases where achieving social-policy objectives can preclude the achievement of economic efficiency. Where there is an apparent conflict between equity and efficiency, there might be mechanisms that allow equity to be achieved without completely sacrificing efficiency goals. In general, governments that attempt to achieve social goals through the regulatory process need to be aware of the limitations of regulatory tools to achieve multiple objectives.

Australia has developed a means to address a variety of social issues directly. Community Service Obligations (CSOs) are used to make subsidies explicit and transparent. The availability of this policy tool, and its greater transparency relative to other approaches, suggest that, where the government has not chosen to establish a CSO, efficiency goals should take precedence over fairness goals.

Where regulators are asked to provide recommendations involving equity issues, an important step is to identify the cost of lost economic efficiency resulting from a decision to pursue fairness goals at the expense of economic efficiency. Consideration of the cost of lost efficiency is relevant in assessing the benefits from pursuing fairness goals that are economically inefficient.

However, as discussed above, economic efficiency should normally be given priority over other criteria unless otherwise directed by government. This is consistent with the interpretation of economic efficiency as a total welfare (economic) or public-interest concept. This is particularly the case where there are separate government policies that address non-economic objectives. Where legislation or government directions specify a particular equity or other social goal, the economic efficiency impact should be made transparent where relevant.

## **Regulatory Governance**

Good regulatory-practice principles are important for ensuring that the overall objectives of economic regulation can be effectively achieved by using appropriate pricing and costing tools. In addition to the principles discussed in relation to economic efficiency and equity, good regulatory practice requires enhancing the predictability and transparency of the regulatory process. Clear and

well-understood pricing principles and objectives are an important element of predictability.

The Australian Energy Market Commission (AEMC 2006, p. 2) considers that good regulatory practice requires enhancing stability and predictability in prices, and transparency of the process for setting prices in developing rules for electricity transmission pricing.

Bonbright, Stern and Kamerschen (1988, pp. 384-387) provide a comprehensive discussion of attributes and criteria for sound rate structures in public utility pricing. They suggest that stability and predictability are secondary criteria with the primary criteria being: capital attraction (revenue adequacy); consumer rationing (allocative efficiency); and fairness. However, they argue that stability and predictability still deserve consideration and that predictability is more important than stability.

Predictability of prices is important for planning purposes, while a commitment to price stability might be too restrictive – imposing costs and risks in an inefficient manner. Predictability and stability of prices are relevant for planning and providing confidence that sunk investments will be protected, and for minimising transactions costs, but stability of prices may conflict with other important regulatory principles.

Good regulatory practice also encompasses the concept of regulatory efficiency. Essentially, regulated prices should involve the minimal level of intrusion needed to accomplish the required outcome.

## **Summary Criteria for Evaluating Price Levels and Structures**

Summary criteria for evaluating pricing levels and structures based on the above considerations are set out below. Some criteria are typically more important than others, but application of the criteria necessarily involves trade-offs that vary depending on specific circumstances. Each criterion will normally have some relevance for evaluating pricing structures, and will need to be applied with judgement based on specific circumstances. It is not possible to specify the criteria in a way that provides a clear rules-based solution to the determination of optimal price levels and structures in all circumstances. Effective application of the criteria should be case-specific.

The criteria are relevant for evaluating: general pricing structures; cost-allocation proposals; and for particular issues such as paying for capacity expansion. Each criterion also has a number of sub-criteria or aspects to be considered.



## Criterion 1 – Economic Efficiency

*Are the pricing arrangements consistent with achieving economic efficiency – broadly defined to encompass all aspects of economic efficiency including efficient allocation and management of risk?*

The primary consideration in evaluating whether a specific pricing proposal or structure is justified from a public-policy perspective is whether it is clearly consistent with increasing overall economic efficiency (comprehensively defined) on a present-value basis. If this is not the case, there would have to be well-justified, non-efficiency-based reasons for supporting it.

Economic efficiency also requires the optimal allocation of risk. This allocation should reflect the parties' relative tolerances for risk, based on their preferences toward risk and their ability to manage or ameliorate risk. In general, when these factors are recognised, some form of risk-sharing between the firm and its customers is almost always more optimal than an extreme allocation. Further, economic efficiency can require either stable or volatile prices, depending on the parties' preferences for price risk.

The efficient allocation of risk in a regulatory setting also needs to recognise that the various affected parties are not likely to have incentives to reveal their true preferences. As a result, consideration needs to be given to the ability to mitigate risk and causal responsibility for risk. Optimal risk allocation also needs to take account of the impact on efficient operation and investment, including the incentives to reduce costs.

Any relevant externalities must also be accounted for when assessing economic efficiency.

## Criterion 2 – Fairness

*Do both service providers and users consider that pricing arrangements are consistent with reasonable expectations formed from prior transactions?*

The concept of a 'reference transaction', or a commercial or social norm, can provide guidance as to a fair commercial price.

### Is the proportionality principle relevant?

In addition to consideration of the reference transaction, the proportionality principle – that individuals in similar circumstances should be treated equally (horizontal equity) and individuals in different circumstances should be treated in proportion to their differences (vertical equity) – is relevant.

## Is there a well-developed rationale for a subsidy?

Determining whether or not there is a subsidy and the rationale for the subsidy is important in assessing the fairness criterion.

## Criterion 3 – Regulatory Governance and Practice

*Do the regulatory laws, rules, procedures, and regulatory capacity, and associated pricing arrangements result in the regulator performing its functions in a professional and appropriately transparent manner, such that stakeholders can judge whether the regulatory decisions that affect them are sound and they have not been unfairly treated?*

At a high level, economic efficiency and fairness are important regulatory-governance principles. In addition, there are a number of other regulatory-governance and operational principles that are relevant:

- **transparency:** the methodology for determining prices needs to be as transparent as practicable to ensure participants have confidence that outcomes are consistent with relevant public policy and regulatory objectives.
- **predictability:** the regulatory arrangements should be as stable and predictable as possible, given other objectives. Stability and predictability will also promote confidence in the regulatory arrangements. However, there may be circumstances where a change in the regulatory arrangements is justified. In addition, stability of prices is not necessarily always consistent with economic efficiency.
- **practicability:** the regulatory arrangements in relation to pricing need to be practicable, and minimise administrative and compliance costs as much as possible given other objectives.

## References

- AEMC (2006), National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22, Rule Determination, 21 December.
- Arrow, K and G Debreu (1954), 'Existence of an Equilibrium for a Competitive Economy', *Econometrica*, 22(3), pp. 265-290.
- Blake, MS and J Fallon (2012), 'The Form of Regulation and Non-diversifiable Risk', *Network*, 44, pp. 1-8.
- Bonbright, J, A Stern and D Kamerschen (1988). *Principles of Public Utility Rates*, Public Utilities Reports, Inc. Arlington, Virginia.

Faulhaber, G (1975). 'Cross-Subsidization: Pricing in Public Enterprises', *The American Economic Review*, 65(5), pp. 966-977.

Gollier, C (2004). *The Economics of Risk and Time*, MIT Press, Cambridge, Massachusetts.

Kahneman, D, J Knetsch, and R Thaler (1986), 'Fairness as a Constraint on Profit Seeking: Entitlements in the Market', *American Economic Review*, 76(4), pp. 728-741.

Knight, F (1921), *Risk, Uncertainty and Profit*, Hart, Shaffner and Marx, Boston.

Ng, Y (1984), 'Quasi-Pareto Social Improvements', *American Economic Review*, 74(5), pp. 1033-1050.

Queensland Competition Authority (2013), *Statement of Regulatory Pricing Principles*, August.

Queensland Competition Authority (2014), *The Split Cost of Capital Concept*, Information Paper, February.

Schmalensee, R (1989), 'Good Regulatory Regimes', *The Rand Journal of Economics*, 20(3), pp. 417-436.

Shapley, LS (1953), 'A Value for N-Person Games', in Alvin E Roth (ed), *The Shapley Value*, Cambridge University Press, 1988, pp. 31-40.

Stanford Encyclopedia of Philosophy, <http://plato.stanford.edu/entries/social-norms/>

Tinbergen, J (1952), *On the Theory of Economic Policy*, North Holland, Amsterdam.



## Critical Issues in Regulation – From the Journals

**Regulating Regulators in Transitionally Competitive Markets**, David Sappington and Dennis Weisman, *Journal of Regulatory Economics*, 41, 1, February 2012, pp. 19-40.

This paper considers two key issues in regulatory design: the importance of incentives faced by regulators; and the implications for standard recommendations for regulatory design in the presence of developing market competition. The authors, David Sappington and Dennis Weisman, focus on how to harness competitive forces to motivate incumbent suppliers better to serve the interests of consumers. They argue that some additional regulation of regulators 'may be appropriate' in achieving this. The paper contains a comprehensive reference list of seventy-eight items.

The authors argue that 'regulators do not always face ideal incentives to foster and manage industry competition appropriately' (p. 20), and set out various reasons why 'regulators may not always be inclined to promote efficient competition and limit inefficient competition' (p. 23). For example, regulators can implement policies that favour some constituents over others. This may be because they are: responding to the pressure of well-organised and politically powerful constituents; protecting revenue sources that finance valued redistribution; or favouring market stability over unpredictability. Regulators may encourage inefficient competition because they follow the wrong measure of success. For example, a regulator may gauge success by an increase in the number of suppliers in a particular market, which may or may not indicate increased welfare.

There are ten specific recommendations in the paper aimed at altering imperfect regulatory incentives or to counter the undesirable effects of these incentives. These suggestions include: using competitive discipline where possible to supplement or replace regulatory discipline; limiting the imposition of under-funded asymmetric obligations on incumbent suppliers; empowering consumers to discipline industry suppliers by, for example, information provision and limiting customer impediments to switching suppliers; undertaking continuous assessment of whether regulation is essential, including by constantly gathering the data required to make such assessments and by using stringent 'sunset' provisions; and the transfer of industry oversight from regulators to antitrust officials. Antitrust is broadly preferred because it is 'less susceptible to capture' and because it has

'considerable expertise on issues of market power and industry competition'.

**Measuring the Financial Impact of Demand Response for Electricity Retailers**, Stefan Feurriegel and Dirk Neumann, *Energy Policy*, 65, 2014, pp. 359-368.

Intermittent power sources, especially wind and solar, have introduced unprecedented fluctuations into power supply, and have confronted retailers with the challenge of matching demand with a volatile supply – that is, on shifting power demand according to fluctuations in supply. Stefan Feurriegel and Dirk Neumann review the literature on how power users react to price changes, and on the financial dimension of demand response. They then set out a mathematical model to provide 'realistic insights into the financial impacts by Demand Response usage' (p. 367). The mathematical model is tested in a simulation using historic data from Germany.

Sections and sub-sections of the paper are: introduction; pricing effects (pricing elasticities, time-based pricing); financial benefits from demand response (household level, aggregate level); mathematical model (parameters, benchmark model without demand response, demand response model with load optimisation, extension: integrating peak clipping, extension: integrating load shifting); evaluation (datasets, demand response potential, results, sensitivity analysis, policy implications); and conclusion. The paper contains over seventy references, relating mainly to European and United States publications and reports.

**Surviving Sub-One-Percent Growth**, Ahmad Faruqi, *Electricity Policy*, June 2013, pp. 1-13.

This paper suggests five causal factors of the slow-down of electricity sales in the United States (US), and suggests four strategies and three tactics to deal with it. While the emphasis is on the US, Ahmad Faruqi observes similar trends in other countries, including Canada and Australia. While written with a clear business focus, the article portrays underlying in-principle economic analysis and empiricism. There are several references to policy and regulatory approaches observed in the US; and there are some useful references.

The five causal factors are as follows: First, a new generation of consumers has different values and norms from previous generations, leading them to explore new technologies, such as solar. Older generations are doing a bit of 'belt-tightening'. Second, utilities are spending more on energy

efficiency, often as a result of directives and legislation. Third, governments are pursuing policies with environmental aims that make 'aggressive' changes to codes and standards. Fourth, distributed generation – mainly solar rooftop and micro turbines – is increasing. Fifth, fuel switching, that used to be in the direction of electricity, is now moving to the opposite direction (towards gas).

Faruqui then moves to discuss his four strategies: one, 'stay the course'; two, 'electrification', for example, more plug-in electric cars; three, 'safe haven' (reverting to being a wires-only business); and four, 'go on the offense'.

Finally, the three tactics are set out. The first tactic is to 'rethink rate design', in particular to shift the pricing mix from volumetric charges to fixed charges; and greater use of time-sensitive charging. The second tactic is to 're-imagine forecasting' in the context of existing forecasting models having been over-stating future demand. (Faruqui identifies a need to shift from trend-projection to models that capture changing customer tastes and behaviour.) The third tactic is to reinvent the load and market research functions. There is a sharp distinction drawn between strategies and tactics; illustrated with a military analogy.

[http://www.brattle.com/system/publications/pdfs/000/004/176/original/Surviving\\_Sub-One-Percent\\_Growth\\_Faruqui\\_Electricity\\_Policy\\_June\\_2013.pdf?1378772096](http://www.brattle.com/system/publications/pdfs/000/004/176/original/Surviving_Sub-One-Percent_Growth_Faruqui_Electricity_Policy_June_2013.pdf?1378772096)

**Competition, Regulation and Access to the Internet**, G Gotz, Telecommunications Policy, 37, 11, December 2013, pp. 1095-1109.

This is primarily a theoretical article with a 'rather stylised model', with little empirical analysis and few empirical references. There are several references to German data and policies, and other country references including Austria, Italy, Latvia, Slovakia, Portugal and Switzerland. The paper is especially about the provision of broadband access to the internet; where there are broad objectives of both bridging the 'digital divide' and promoting investment. There is a distinction between geographic coverage (premises past) and penetration (proportion of premises connected). The focus is on the 'trade-off between broadband penetration and broadband coverage' – population density is an important factor.

The main specific concerns are about subsidisation of broadband (of demand or supply or both) in different institutional contexts – unregulated monopoly; regulated monopoly; service-based competition; and facilities-based competition. There is considerable discussion around 'heavy-handed regulation' and 'light-handed regulation'. Because there are several scenarios, there are several

findings from the study. One of these is that, with supply-side subsidies, 'rent-seeking by firms might lead to strategic withholding of investments in otherwise profitable regions by incumbents' (p. 1108). More generally, the author finds support for the 'Schumpeterian argument of market power as a prerequisite for investment' where 'lower prices to increase broadband uptake typically come at a cost in terms of investment and coverage'.

**The Mystique of Water Pricing and Accounting**, N Fawsey and L Crase, Economic Papers, 32, 3, September 2013, pp. 328-339.

This paper is about the practical challenges of establishing water prices that reflect the costs in terms of alternative uses of the resources. These challenges are considered particularly in relation to the accounting conventions of government-owned water entities in the State of Victoria, Australia. The article also considers political and administrative challenges at play in achieving more efficient water pricing and better performance of water utilities. The broad context is the National Water Initiative (NWI) dating from 1994.

In terms of structure, section headings for this article are: Full Cost Recovery; Regulatory Price Setting; Statutory Accounting and Water Infrastructure Measurement; Performance Implications for Water Entities; and Policy and Regulatory Implications. The article contains a long list of references to relevant articles, studies and reports, including several articles on public sector accounting and publications of government agencies such as the Productivity Commission and the Victorian Essential Services Commission (ESC).

An interesting section of the paper (pp. 330-332) describes regulatory price-setting in the context of the various accounting standards and the NWI. The discussion ranges over: the use of 'accrual accounting'; the particular challenges faced by government-owned entities; the use of the 'building-block model'; the application of long-run marginal cost; the regulatory asset base (RAB); the weighted average cost of capital and the treatment of 'gifted assets'. The following section focuses on the disconnection between private and public sector measurement practices, where the revaluation of assets for urban water utilities has been greater than that for non-metropolitan entities.

The authors then turn to a discussion of the performance implications for water utilities of the transition from historic-cost to fair-value measurement. Policy agendas are depicted as being aimed at 'ensuring cost-reflective pricing' and striving 'to make comparisons between private and public

sector performance clearer' (p. 335). Data on the revaluation of metropolitan and regional water utilities are presented; including on the implications for depreciation. The authors (p. 336) observe as follows about the impact of the ESC's approach to asset revaluations:

Clearly, were the ESC to reverse its policy of preventing entities from revaluing their RABs, the price adjustments required in the regional and rural communities would be substantial.

The authors conclude by observing that, while more 'can still be done to improve the clarity of water price signals', in 'many parts of the world there is little more than lip service paid to the notion of cost-reflective water pricing' (p. 337).

**The European Transport Policy: Its Main Issues**, Marco Ponti, Andrea Boitani and Francesco Ramella, *Case Studies on Transport Policy I*, 2013, pp. 53-62.

The paper focuses on a number of European transport policy issues. The authors note the great complexity of the transport sector, with: several competing modes, infrastructure and services; public and private operators; and both efficiency and equity objectives. They also note the diverse impact of European Union (EU) policy in different countries and at different times. The issues are selected for their acknowledged economic and political importance; and their relevance across transport modes. An overview of EU transport policy principles is provided, together with an assessment of the consistency of actual policy actions with those principles. The selected issues are: planning and promotion of new infrastructure; competition and regulation policies; and environmental policies.

Transport is multiproduct, producing differentiated services (both for freight and passengers) by means of different infrastructures. Different technologies (modes) are employed, with some modes heavily taxed; while others are heavily subsidised. Transport also has environmental externalities. Both state and private suppliers are present in transport. While monopoly still prevails in some areas, others are fully open to competition. The authors contend that this complexity makes it difficult to provide an overall assessment of the European transport policy.

The authors set out and discuss four underlying principles of European transport policy:

The first principle is linked with the one of the pillars of the European Union itself: the tenet that competition and a wider market are essential

conditions for efficiency; accelerated technical progress; and competitiveness.

The second principle, related to the pricing of infrastructure, is the Social-Marginal-Cost-Pricing (SMCP) principle that states that economic efficiency requires that users pay all of the costs that they generate directly.

Third, SMCP has gradually been supplemented by the principle that users pay also for a substantial part of the investment and fixed costs (Social Average Cost Pricing, SACP). This means that users pay for something that was once paid out of general taxation. The authors also note the emergence of different theoretical approaches; such as that stressing the existence of a 'positive marginal opportunity cost of public funds'.

The fourth European principle relevant for transport is related to the environmental impact of the transport sector. This principle is known as 'polluters pay'. It means that users must pay, not only for private costs, but also for social costs.

The authors contend that the aims and goals of EU transport policy are sound and consistent: opening up the European market via better transport infrastructure and services, with the latter made more competitive, to the benefit both of efficiency and distributive goals. They observe the overcoming of strong resistance of vested interests and 'national egoisms'. The results, nevertheless, look unbalanced in a rather unexpected way: policy-makers proved to be able to force competition in sectors dominated by private businesses, but were less ready to open up to competition in areas under their own control. The overall European strategy therefore appears poorly planned and left open to nationalistic pressures. In relation to rail: state-owned enterprises still dominate; infrastructure and services remain basically monopolistic, with limited exceptions (UK and regional services in Germany and Sweden); and financial resources are still demanded. The authors suggest there are obvious technical reasons for railways lagging behind in the liberalisation process – for example, high indivisibility and economies of scale and scope. They also see these factors at work: high subsidies; strong trade unions; capture; and reverse-capture.

<http://www.sciencedirect.com/science/article/pii/S2213624X13000035>



**Estimating the Market Risk Premium in Regulatory Decisions: Conditional versus Unconditional Estimates**, Peter Gibbard, ACCC/AER Working Paper Number 9, September 2013.

Regulators have discussed at least four different methodologies for estimating the market risk premium (MRP) for the purpose of determining regulatory prices. First, MRP estimates can be informed by evidence drawn from surveys of corporate executives, academics, auditors and accountants. Second, the MRP can be calculated using dividend-growth models. Third, estimates of the MRP can be obtained from historical averages of annual excess returns (equity returns less the risk-free rate). Fourth, estimates of the MRP may be specified to be conditional on currently available information – that is, they may be specified to be a function of information such as: market volatility; dividend yields; and the risk-free rate.

This paper compares the third and fourth of these methods, identifying the key issues in the debate between conditional estimates of the MRP and historical, unconditional estimates. This question is connected to the debate about the predictability of excess returns. The author surveys three phases of the literature on the predictability debate. The paper shows that the third phase might be used to support a historical estimate of the MRP. According to the third-phase research, when forecasting excess returns, it is difficult to do better than a historical average. Therefore the historical average can be construed as a good forward-looking estimate of the MRP.

The debate among researchers on predictability is not settled. Even if it were conceded that excess returns are, to some degree, predictable from a given set of variables, the regulator faces at least three practical problems with using that set of variables to estimate a conditional MRP.

First, in response to scepticism about predictability in the third phase of research, the recent literature has developed a range of models that is both increasingly diverse, and complex. If a regulator were considering conditional models of the MRP, it would be difficult for the regulator to make an evidence-based selection of the appropriate model, not only because of the diversity of these models, but also because of their increasing complexity.

Second, the third-phase research has particularly emphasised concerns about the stability of models of excess returns. A number of studies have found that the values of the parameters in the models of returns tend to change over time. Given the high degree of instability in models of excess returns, it is unclear how the regulator can set the MRP as a function of

some specific variable. In particular, it is unclear how the regulator would determine how much the MRP should be adjusted in response to movements in that variable.

Third, what appear to be statistically significant relationships between variables and excess returns may reflect 'data mining'.

<https://www.accc.gov.au/system/files/Working%20Paper%20no%209%20-%20Estimating%20the%20Market%20Risk%20Premium%20in%20Regulatory%20Decisions.pdf>

## Regulatory Decisions in Australia and New Zealand

### Australia

#### Australian Competition and Consumer Commission (ACCC)

##### Lower Bulk Water Charges for NSW Irrigators

On 5 March 2014 the ACCC released its Draft Decision on pricing for bulk water supplied by State Water Corporation in the New South Wales Murray-Darling Basin in the 2014-17 period. Feedback is required by 17 April 2014. The ACCC will make its final decision in June 2014. [Read the Draft Decision on bulk water pricing.](#)

##### Decision Not Object to Postage Price Increase by Australia Post

On 20 February 2014 the ACCC announced its decision not to object to Australia Post's proposal to increase the prices of ordinary letter services, including the basic postage rate (BPR) from 60 cents to 70 cents. Australia Post proposes to increase postal prices with effect from 31 March 2014. [Read about the increase with effect from 31 March 2014.](#)

##### Approval of Changes to Viterra's Wheat Port Undertaking

On 30 January 2014 the ACCC consented to Viterra Operations Limited's application to extend and vary its 2011 Port Terminal Services Access Undertaking, which was previously due to expire on 30 September 2014. [Read about the changes.](#)

##### NBN Co Special Access Undertaking Accepted

On 13 December 2013 the ACCC announced that it has accepted the varied Special Access Undertaking (SAU) lodged by NBN Co on 19 November 2013. The SAU will form a key part of the framework for governing prices and other terms upon which NBN Co will supply services to telecommunications companies over the National Broadband Network (NBN) until 2040. [Read about framework for pricing until 2040.](#)

##### Draft Reports on Transmission and Fixed-line Network Regulation

On 13 December 2013 the ACCC released a draft report reviewing the scope of its regulation of fixed-line telecommunications services. The ACCC proposes to continue regulating transmission services and the six fixed line services for another five years until 2019. [Read the draft report.](#)

See also 'Notes on Interesting Decisions'

##### Views Sought on GrainCorp's Port Terminal Access Arrangements at Newcastle

On 12 December 2013 the ACCC announced that it is seeking views on whether the scope of regulation of GrainCorp's bulk grain port terminal in Newcastle should be reduced due to the presence of other bulk export grain facilities at the Port of Newcastle. [The closing date for submissions was 31 January 2014.](#)

#### Australian Energy Regulator (AER)

##### Victorian Gas Network Performance Report

On 6 February 2014, the AER issued its report on the performance in 2012 of providers of distribution services for gas in Victoria, covering Envestra, Multinet and SP AusNet. The Victorian service providers deliver gas through low pressure pipelines directly connected to a customer's premises. Distribution network charges generally make up about 40-60 per cent of a household customer's bill. This will be the last performance report published that relates to the previous state regulatory regime. From now, the AER will publish data on all of the gas distributors in the Australian market. [Read the report.](#)

##### Decision on SP AusNet's Revenue Proposal

On 30 January 2014, the AER issued its final decision on SP AusNet's revenue proposal for the three year regulatory period commencing 1 April 2014. SP AusNet is the principal electricity transmission network service provider in Victoria. The AER's final decision sets the maximum revenue that SP AusNet can recover from its customers via the transmission network component of an electricity bill. [Read the final decision.](#)

##### State of the Energy Market 2013 Report

On 20 December 2013, the AER published the State of the Energy Market Report which highlights developments in the energy market. [Read the report.](#)

##### New Rate of Return Guidelines Published

On 17 December 2013, the AER published new guidance on how it will determine the return that electricity and gas network businesses can make on their investments. The new approach has involved extensive consultation with businesses and consumers since the new network regulation rules were finalised in late 2012, and were developed as part of the AER's *Better Regulation* program. [Read the new guidelines.](#)

## Approval of Victorian Electricity Network Tariffs

On 10 December 2013, the AER announced it had approved electricity network tariffs proposed by the Victorian distribution network service providers (distributors) CitiPower, Powercor, Jemena Electricity Networks, SP AusNet and United Energy, for the period 1 January 2014 to 31 December 2014. These businesses charge network tariffs typically account for about 40 per cent of residential retail bills in Victoria and cover the costs involved in transporting electricity from generators, across the high-voltage transmission and low-voltage distribution system, to customers' premises. [Read about the electricity network tariffs.](#)

## Australian Energy Market Commission (AEMC)

### Design and Testing of Optional Firm Access

On 6 March 2014 the AEMC published terms of reference from the Standing Council of Energy and Resources for a review to test a new model for cost-efficient investment in future generation and transmission of electricity. The Optional Firm Access Review will develop and assess the optional firm access package which was recommended by our Transmission Frameworks Review (April 2013). The AEMC and AEMO are working cooperatively on this review. [Read about the review.](#)

### Distribution Reliability Measures

On 20 February 2014, the AEMC announced that on 30 January 2014 it received a request from the SCER to develop common definitions for expressing distribution reliability targets across the National Electricity Market (NEM). SCER considers this would be a useful tool to facilitate efficient investment, increase transparency and improve regulatory outcomes. The AEMC has commenced the review and will work with the AER, relevant electricity distribution businesses, jurisdictional regulatory bodies and governments in the development of the common definitions. [Read about the review.](#)

### Position Paper Published on Connecting Embedded Generators

On 30 January 2014, the AEMC released for consultation a draft final rule and position paper for the connecting embedded generators rule change. The draft final rule for consultation includes the changes from the draft rule that was published by the AEMC on 27 June 2013. [Read the draft final rule.](#)

## Options Paper on the AEMC Review of Electricity Customer Switching

On 23 January 2014 the AEMC published an Options Paper, for public consultation, setting out a range of possible options aimed at improving the timeliness and accuracy of the electricity customer transfer process. These options have been developed as part of the AEMC's Review of Electricity Customer Switching arrangements in the National Electricity Market (NEM). [Read the options paper.](#)

### 15 Years of the National Electricity Market

On 13 December 2013 the AEMC and KPMG published The National Electricity Market: A Case Study in Successful Microeconomic Reform to mark the fifteenth anniversary of the launch of Australia's National Electricity Market. The book is a collection of interviews with leaders of the reform process to document their experience and lessons for the future. [Read about the case study.](#)

### Publication of 2013 Residential Electricity Price Trends Report

On 13 January 2013, the AEMC released its report on factors driving residential electricity prices over the next three years to 2015-16. The report analyses trends in the competitive market sectors of the industry; the regulated networks sector; and resulting from government environmental policies in each state and territory. [Read the AEMC report.](#)

## Australian Capital Territory

### Independent Competition and Regulatory Commission (ICRC)

#### Retail Electricity Prices for Small Customers – Draft Report

On 14 February 2014 the ICRC released its draft report and proposed price direction for regulated retail electricity prices. The document relies on provisional estimates of data, the final value of which will not be known until later in the year. [Read the draft report.](#)

## New South Wales

### Independent Pricing and Regulatory Tribunal (IPART)

#### A New Approach to Estimating the Cost of Debt – Review

On 21 February 2014 the IPART announced a review proposing a new approach to estimating the cost of



debt based on the Reserve Bank of Australia's estimates of credit spreads. [Submissions are due 4 April 2014.](#)

### **Final Report Released on Early Termination Fees**

On 16 December 2013 the IPART announced completion of its review of early termination fees that retailers can charge customers for breaking their electricity supply contracts early. [See the Final Report.](#)

### **Final Report Released on WACC Methodology**

On 9 December 2013 the IPART released the final report on its weighted average cost of capital (WACC) methodology. [Read the report.](#)

### **Final Decision Released on Financeability Test in Price Regulation**

On 2 December 2013 the IPART released the Final Decision on its research into a price review process; a financeability test into the implications of the IPART's pricing decisions on the financial position of a utility. [Read about the research.](#)

### **Benchmark Costs for Local Infrastructure Contributions**

On 25 November 2013, the IPART announced its development of benchmark costs that can be used to inform local infrastructure contributions under the new planning system for NSW. [Read about the benchmark costs.](#)

## **Northern Territory**

### **Utilities Commission**

#### **Draft Determination and PWC's Revised Regulatory Proposal**

On 19 February 2014, the Utilities Commission published ten submissions received regarding the 23 December 2013 release for public consultation of its [Draft Determination](#) and constituent draft decisions for the network charges able to be levied by Power and Water Corporation's (PWC) network business unit (PWC Networks) for the five-year regulatory control period 1 July 2014 to 30 June 2019. [View the submission received.](#)

## **Queensland**

### **Queensland Competition Authority (QCA)**

#### **Draft Report: Feed-in Tariff for Regional QLD 2014–15**

On 21 March 2014 the QCA released a Draft Report on a feed-in tariff for regional Queensland for 2014–15. [Read the Draft Report.](#)

#### **Position Paper: SEQ Long-term Regulatory Framework**

On 3 March 2014 the QCA released a Position Paper on a long-term light-handed regulatory framework for monitoring the monopoly distribution and retail water and sewerage activities of Unitywater, Queensland Urban Utilities (QUU), Logan City Council, Redland City Council and Gold Coast City Council. [Read the Position Paper.](#)

#### **Aurizon Network 2013 Standard User Funding Agreement**

On 14 February 2014 the QCA announced it was considering Aurizon Network's draft amending access undertaking incorporating a proposed standard user funding agreement (the 2013 SUFA DAAU). The Standard User Funding Agreement, or SUFA is intended to allow mining companies, and other third-party investors, to invest in expansion of Aurizon Network's central Queensland coal network, where Aurizon Network is unable or unwilling to do so. [Read about the 2013 SUFA DAAU.](#)

#### **Regulated Retail Electricity Prices 2014-15**

On 11 December 2013 the QCA released its Draft Determination on regulated retail electricity prices for 2014-15 and sought feedback by 28 February 2014. Workshops will be conducted across Queensland in early 2014 to discuss the Draft Determination with interested stakeholders. The QCA will release its final decision on electricity prices by 31 May 2014. [Read about the draft determination.](#)

#### **Cost of Capital Methodology Review 2012-14: Gamma**

On 26 November 2013, the QCA released an issues paper, Estimating Gamma (the value of imputation credits that is recognised in the regulated cost of capital). Submissions were required by 20 January 2014. [Read about the review.](#)

## **Coal Seam Gas Regulatory Review – Draft Report and Request for Submissions**

On 22 November 2013 the QCA released its Draft Report on the Coal Seam Gas Regulatory Review. Submissions were due by 18 December 2013, with a Final Report anticipated by 31 January 2014. [Read about the review.](#)

## **Aurizon Network's 2013 Blackwater Electric Traction Pricing DAAU**

On 22 November 2013 the QCA published a draft decision proposing not to approve Aurizon Network's 2013 Blackwater electric traction pricing draft amending access undertaking (DAAU). [Read about the draft decision.](#)

## **Queensland Rail's Extension DAAU – Final Approval**

On 21 November 2013 the QCA published its decision approving Queensland Rail's application to extend the 2008 access undertaking's termination date. [Read about the extension DAAU.](#)

## **South Australia**

### **Essential Services Commission of South Australia (ESCOSA)**

#### **National Energy Retail Law Review Issues Paper**

On 6 March 2014 the ESCOSA published its Final Decision on the methodology to undertake a review of the operation of National Energy Retail Law (NERL) in South Australia, to be undertaken from 1 February 2015. [Read the final decision.](#)

#### **Economic Regulation of SA Water from 1 July 2016 – Submissions Received**

On 27 February 2014 the ESCOSA announced it had received two submissions in response to its public consultation on the Economic Regulation of SA Water from 1 July 2016 – Draft Framework and Approach Paper. The ESCOSA is developing its proposed framework and approach to regulating SA Water's prices and service standards during the Second Regulatory Period, commencing 1 July 2016. [Read the submissions.](#)

## **Draft Decision on SA Power Networks Service Standard Framework for 2015-2020 – Submissions Received**

On 4 February 2014 the ESCOSA announced receipt of written submissions to its consultation on its 22 November 2013 Draft Decision, on the proposed jurisdictional service standards and Guaranteed Service Level scheme to apply to SA Power Networks for the 2015-2020 regulatory period. A Final Decision is anticipated in April 2014. [See the Draft Decision.](#)

## **Inquiry into Drinking Water & Sewerage Retail Services Pricing Reform – Late Submissions**

On 7 January 2014 the ESCOSA announced receipt of a late submission to its Inquiry; from Uniting Communities, and another on 24 December 2013 from the Council on the Ageing SA. [View all the submissions.](#)

## **Review of the Retailer Feed-in Tariff – Final Price Determination**

On 17 December 2013 the ESCOSA released its final decision in respect of the minimum retailer feed-in tariff payable by electricity retailers to customers with solar photovoltaic units. [Read the final decision.](#)

## **ESCOSA Submission to DTF on the Water Industry (Third Party Access) Amendment Bill**

On the 9 December 2013, the ESCOSA published its submission to the South Australian Department of Treasury and Finance on the consultation draft of the Water Industry (Third Party Access) Amendment Bill 2013. [Read the ESCOSA submission.](#)

## **Tasmania**

### **Office of the Tasmanian Economic Regulator (OTTER)**

#### **Electricity Statement of Regulatory Intent – Wholesale Contract Regulation**

On 5 March 2014 the OTTER released a Consultation Paper and sought comment on its Draft Statement of Regulatory Intent with respect to wholesale contract regulation. [Feedback is required by 28 March 2014.](#)

#### **Metro Tasmania Pty Ltd Pricing Investigation**

On 6 February 2014 the OTTER published the submissions it received in relation to the OTTER's investigation into Metro Tasmania's pricing policies. [Read the submissions.](#)

## **2013 Standing Offer Investigation and Determinations**

On 15 January 2014, the OTTER received a proposal from Aurora Energy to amend the Retail Service Price Determination. The OTTER proposed amendments to the determination to reinstate Aurora Energy's ability to impose charges on the same basis as was previously approved. A Consultation Paper was released and the OTTER sought feedback by 26 February 2014. [Read about the Investigation and Determinations.](#)

### **Electricity Wholesale Contract Guideline**

On 10 December 2013 the OTTER released the final Electricity Wholesale Contract Guideline which sets out Hydro Tasmania's responsibilities in relation to regulated electricity wholesale market contracting. [Read the Guideline and Statement of Reasons.](#)

### **2013 Feed-in Tariff Inquiry and Determination**

On 6 December 2013 the OTTER made its Regulated Feed in Tariff Determination for Standard Feed in Tariff Customers, reflecting the recommendations made in the OTTER's inquiry report. [Read about the Inquiry and Determination.](#)

## **Victoria**

### **Essential Services Commission (ESC)**

#### **Review of Energy Regulatory Audit Framework**

On 31 January 2014 the ESC published its Final Decision on the Regulatory Audits of Energy Businesses. [Read the Final Decision.](#)

#### **Energy Retail Disconnection and Participation in Hardship Programs in 2012-13**

On 18 December 2013 the ESC reported that the rate of residential electricity disconnections increased by six per cent during 2012-13 on top of a 33 per cent increase observed in each of the preceding two years. [Read the report.](#)

## **Western Australia**

### **Economic Regulation Authority (ERA)**

#### **Application for Expansion of Goldfields Gas Pipeline to be Non-Covered**

On 26 February 2014 the ERA sought public comment on an application by Goldfields Gas Transmission Pty Ltd (GGT) for an expansion to the Goldfields Gas Pipeline (GGP) to be not covered (not regulated). [Read about the application.](#)

#### **Brookfield Rail Pty Ltd Floor and Ceiling Cost Determination**

On 3 February 2014 the ERA announced an extension of time limit for public submissions and determination until 7 April 2014. [Read about the cost determination.](#)

#### **Review of the Methodology for Setting the Maximum Reserve Capacity Price and the Energy Price Limits in the Wholesale Electricity Market – Report**

On 15 January 2014 the ERA published its Report on the review of the methodology for setting the Maximum Reserve Capacity Price and the Energy Price Limits in the Wholesale Electricity Market. [Read the report.](#)

#### **Rate of Return Guidelines for Gas Transmission and Distribution Networks – Final Guidelines**

On 16 December 2013 the ERA published its Rate of Return Guidelines. [Read the Guidelines.](#)

#### **Final Decision – Financial Hardship Policy Guidelines for Water Services**

On 2 December 2013 the ERA approved the Financial Hardship Policy Guidelines for Water Services. [View the Final Decision.](#)

## **New Zealand**

### **New Zealand Commerce Commission (CCNZ)**

#### **CCNZ Consults on Cost of Capital for Telecommunications Price Reviews**

On 7 March 2014 the CCNZ announced that it is seeking submissions on its proposed approach to setting the rate of return on capital for the unbundled



copper local loop (UCLL) network and the unbundled bitstream access (UBA) service. The allowed rate of return on capital is also known as the 'weighted average cost of capital' (WACC). [Submissions are due by 28 March 2014.](#)

## **New Information Disclosure Requirements for Transpower**

On 28 February 2014 the CCNZ issued information disclosure requirements for Transpower, the owner and operator of the national electricity transmission grid. [Read about the requirements.](#)

## **Cost of Capital Input Methodologies – CCNZ Seeks Views**

On 20 February 2014 the CCNZ invited views on whether it should consider reviewing or amending the input methodologies for the cost of capital that apply to electricity lines services, gas-pipeline services and specified airport services regulated under Part 4 of the Commerce Act 1986. [Submissions were due by 15 March 2014.](#)

## **Final Report on Christchurch International Airport**

On 13 February 2014 the CCNZ released its final report to the Ministers of Commerce and Transport on the effectiveness of the information disclosure regulation in relation to Christchurch International Airport. [Read the final report.](#)

## **UBA Process and Issues Paper**

On 7 February 2014 the CCNZ released a paper which outlines the proposed process for pricing Chorus' wholesale broadband – the unbundled bitstream access (UBA) service - according to the 'Final Pricing Principle' in the Telecommunications Act. The CCNZ has set a date of 1 December 2014 for completing this work.

## **Latest Retail Price Benchmarking for Telecommunications Services**

On 23 December 2013 the CCNZ released its third report benchmarking New Zealand retail prices for fixed-line phone and broadband services against international prices. [A report benchmarking retail prices in New Zealand's mobile markets was anticipated in early 2014.](#)

## **Judgment on Merits of the CCNZ's Input Methodology Determinations**

On 12 December 2013 the CCNZ welcomed a High Court judgment in relation to challenges against its December 2010 input methodologies decisions. [Read about the judgment.](#)

## **Review of the Price List of the UCLFS STD Determination**

On 11 December 2013 the CCNZ gave public notice that it had commenced a review of the price list of the Unbundled Copper Low Frequency Service Standard Terms Determination (UCLFS STD) under section 30R of the Telecommunications Act 2001 (Act). Submissions were required by 10 January 2014. [Read about the review.](#)

## **Consultation Document for Reviewing the Price of Chorus's Unbundled Copper Local Loop Service**

On 6 December 2013 the CCNZ released a consultation document for the Final Pricing Principle (FPP) of Chorus's Unbundled Copper Local Loop (UCLL) Service. [View the FPP consultation document.](#)

## **Settlement with Wellington Electricity on its 2012 Price Breach**

On 5 December 2013 the CCNZ signed an out-of-court settlement agreement with Wellington Electricity Lines Limited (Wellington Electricity) after it breached its price path for the 1 April 2011 to 31 March 2012 assessment period. [Read about the price breach.](#)

## Notes on Interesting Decisions

### Communications Regulation – Steering Through a Period of Transition

The communications industry is currently navigating a unique period of transition brought about by policy-induced structural change, advancements in technology and changes in consumer-usage patterns. The key outcome of the policy-induced structural change is the replacement of the vertically integrated incumbent, Telstra, with a structurally separated wholesale-only access network (the national broadband network (NBN)). The transition to a new market structure is creating heightened uncertainty and presenting new challenges for the ACCC and the industry. Given the staggered geographic deployment of the NBN, the ACCC is simultaneously managing three broad work streams to facilitate a smooth transition:

1. continuing work to ensure competitive access to Telstra's existing copper network and other required infrastructure and services until the NBN deployment is complete;
2. ensuring that structural reform is implemented in a manner that minimises any disruption for consumers and competition; and
3. establishing an effective regulatory regime to promote incentives to invest, innovate and price efficiently for the NBN monopoly provider.

Over recent months the ACCC has made a number of decisions which have a significant bearing on each of these work streams.

#### Fixed Services Review

A key decision related to the first work stream identified above was the release of a draft decision in relation to the declaration of a number of fixed line services on 13 December 2013. In the draft decision, the ACCC proposes to extend the declaration of all six services for five years. The six fixed line services covered by the existing declarations are the: unconditioned local loop service, line sharing service, public switched telephone network originating access service, public switched telephone network terminating access service, wholesale line rental service and local carriage service. Access to these services will enable competitors to continue to provide competitive services to end-users in areas not yet reached by the NBN.

In addition to the declaration inquiry, the ACCC is also considering the terms, including price, on which access should be provided.

To ensure competitors are able to reach end users to supply fixed and other services in areas where they do not own infrastructure, the ACCC has recently examined the declaration of transmission services (discussed below).

#### ACCC directs Telstra to amend further measures developed under the Migration Plan

In relation to the second work stream, on 20 December 2013, the ACCC directed Telstra to vary the proposed 'pull-through' required measures that were provided under Telstra's Migration Plan, so as to reduce the binding timeframes within which to notify wholesale customers of service outages. The ACCC considered the proposed timeframe of up to two days would not assist service providers in managing service outages for their end-users.

The Migration Plan specifies the processes that Telstra will use to disconnect voice and broadband services currently provided over its copper and HFC networks as premises are migrated to the NBN. It also requires Telstra to develop a number of processes ('required measures') that were not in place at the time the Migration Plan commenced on 7 March 2012.

'Pull through' involves the use of an existing copper or HFC line to pull the NBN fibre through the conduit that leads from the street to the end-user's premise, resulting in a service outage. NBN Co has indicated that it intends to use 'pull through' to connect premises in the fibre-to-the-premises (FTTP) areas of the NBN deployment where other installation methods cannot be used.

Telstra provided in its Migration Plan that it would develop processes to firstly obtain the consent of its wholesale customers for NBN Co to conduct pull through, as well as to notify wholesale customers if 'pull through' was not successful and a working service could not be re-established.

On 20 February 2014, Telstra resubmitted a draft of the required measure to the ACCC, with shorter timeframes to address the ACCC's concerns. The ACCC is currently consulting on the resubmitted required measure.

#### ACCC accepts NBN Co Special Access Undertaking

A key decision under the third work stream is the ACCC's acceptance of the NBN Co Special Access Undertaking (SAU) on 13 December 2013. A varied SAU was lodged by NBN Co on 19 November 2013

in response to a variation notice issued by the ACCC on 8 October 2013. The acceptance of the SAU forms an integral part of the regulatory regime to provide incentives for the monopoly NBN provider to invest, innovate and price efficiently.

The SAU, which will operate until June 2040, includes terms and conditions for access to the NBN, and provides the broad regulatory framework to facilitate effective engagement between NBN Co and access seekers to negotiate commercial agreements. In particular, the SAU forms the basis for how NBN Co can set its prices and change its product offerings over time. The SAU also provides for continued ACCC oversight in areas such as pricing, products and investments.

The SAU has a 'modular' structure that allows for different matters to be 'locked in' for different periods of time which is intended to achieve a balance between long-term certainty and flexibility. Importantly, the SAU is technology-neutral and sufficiently flexible to accommodate any network design changes that may arise from alternative policy settings such as those that may flow from the Strategic Review and the Independent Cost-Benefit Analysis of the NBN.

### **The Domestic Transmission Capacity Service (DTCS) Declaration Inquiry**

In December 2013, the ACCC published its draft decision on the review of the declaration of the domestic transmission capacity service (DTCS). The DTCS is a high-capacity transmission service used to carry large volumes of voice, data and video traffic. The DTCS is an important service in the transition to the NBN as it is an essential input into the provision of services over the legacy copper network and the NBN (backhaul from NBN POIs). It is also an important component of mobile telephone networks, the delivery of audiovisual content and other wholesale and retail business communications services. Declaration of the DTCS enables communications companies to access the DTCS and provide services to end users in areas where they do not own their own infrastructure and the availability of competitive transmission services is limited.

The ACCC's preliminary view is to vary and extend the declaration of the DTCS for a further five years. Specifically, the ACCC proposes to:

- adopt a more comprehensive approach to assessing competition on transmission routes
- remove regulation on an additional 112 metropolitan Exchange Serving Areas (ESAs) and eight regional transmission routes that meet the revised competition criteria

- re-declare three regional transmission routes that do not meet the new criteria
- maintain regulation of tail-end transmission services
- vary the DTCS service description to align it with the DTCS final access determination, and
- provide a transitional period of nine months before the removal of regulation and re-declaration of routes take effect.

\*\*\*

The above decisions are key components in establishing the appropriate regulatory settings to facilitate competitive outcomes throughout the transition period. At the same time, the ACCC continues to remain vigilant and responsive to anti-competitive conduct and consumer protection issues in communications and content markets.

Further key communications regulatory challenges for the ACCC over the next few years include: ensuring a smooth migration of a wide variety of services from the legacy copper network to the NBN; adapting the regulatory framework to accommodate a wider mix of access technologies in the NBN; and readjusting the regulatory settings for the legacy copper network as usage declines.

Central to the ACCC's decision making throughout and beyond the transition to the NBN is the goal of promoting the long term interests of end users. This goal is achieved through ensuring communications markets are fair and competitive by the use of targeted and proportional regulation and competition powers.



## Regulatory News

### Consumer Involvement in Network Industries Regulation

The latest issue of *Network Industries Quarterly* (Vol. 16, No. 1, 2014) contains four papers especially written for this issue based on presentations made at the 2013 ACCC/AER Regulatory Conference:

Catherine Waddams: 'Customer Involvement: Frontier or Smokescreen?'

Rachel Trindade: 'The Role of Consumer Advocate in Australia's National Electricity Market – Lessons for Australia from the Pennsylvania OCA'

Matthias Finger: 'The European Approach to Regulation: Implications on Consumer Protection'

Greg Houston: 'Consumer Advocacy in Australian Regulatory Decision Making – Hard Choices Await'

The issue of *Network Industries Quarterly* is available at: <http://mir.epfl.ch/page-106382-en.html>

### 2014 ACCC/AER Regulatory Conference

The fifteenth ACCC/AER Regulatory Conference will be held in Brisbane on 7 and 8 August 2014. The theme for the conference is 'Regulating for Efficient Infrastructure Outcomes'. The international speakers this year are: Johannes Bauer; Ahmed Faruqi; William Kovacic; Chris Nash; Karl-Heinz Neumann; Graham Shuttleworth and Ingo Vogelsang. The conference program and registration form will soon be available on the ACCC website.

*Network* is a quarterly publication of the Australian Competition and Consumer Commission for the Utility Regulators Forum. For editorial enquiries please contact Rob Albon (Robert.Albon@acc.gov.au) and for mailing list enquiries please contact Genevieve Pound (Genevieve.Pound@acc.gov.au).