

## The Components of Efficiency

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Few issues papers, reports or decisions in Australian regulation that refer to economic efficiency fail to refer to what the author calls the 'Hilmer trilogy'; the assertion that economic efficiency has three components, technical or productive, allocative and dynamic.

The prominence given to this statement, its repetition and its invocation of the Hilmer report is somewhat surprising. In 1993, when the report was written, Hilmer was Dean of the Australian Graduate School of Management, a position he had held since 1989. For 19 years before that he worked as a management consultant at McKinsey & Company, the last nine managing the Australian practice. He certainly would never have been called as an expert economic witness in a competition or regulatory matter.

There is no doubt that allocative, productive and dynamic factors can contribute to economic efficiency. As will be discussed later, it is possible to argue that the list is not complete and that the three factors identified are not really equal.

Given how frequently the Hilmer trilogy is cited, and that a statement in a government report isn't really an authority on economics, there is an attempt to identify an original source.

The trilogy appears in the Hilmer report in the first chapter 'Towards a National Competition Policy'. Section A is headed 'Competition and Competition Policy' and sub-section 1 is headed 'Competition and Community Welfare'. It appears after a paragraph that reads:

The relationship between competition and community welfare can be considered in terms of the impact of competition on economic efficiency and on other social goals.

Two further divisions occur within the section; one on economic efficiency and one on other social goals. The first of these begins:

Efficiency is a fundamental objective of competition policy because of the role it plays in enhancing community

welfare. There are three components of economic efficiency:

- **Technical or productive efficiency**, which is achieved where individual firms produce the goods and services that they offer to consumers at least cost. Competition can enhance technical efficiency by, for example, stimulating improvements in managerial performance, work practices, and the use of material inputs.

- **Allocative efficiency** is achieved where resources used to produce a set of goods or services are allocated to their highest valued uses (ie, those that provide the greatest benefit relative to costs). Competition tends to increase allocative efficiency, because firms that can use particular resources more productively can afford to bid those resources away from firms that cannot achieve the same level of returns.

- **Dynamic efficiency** reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities. Competition in markets for goods and services provides incentives to undertake research and development, effect innovation in product design, reform management structures and strategies and create new products and production processes.

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The only reference provided for this declarative statement is the Treasury submission to the inquiry. Reading that submission reveals that Hilmer's trilogy is a word-for-word transcription of the Treasury position. The Hilmer trilogy may be better described as the 'Treasury troika'.<sup>1</sup>

Just as the report of a government inquiry wouldn't be regarded as an authority on economics, quoting Treasury as the basis for the description of an economic concept is unusual.

This prompts the question of whether there is an earlier source – a statement in an economic text that matches the Treasury view. At the time of the Hilmer inquiry the current Chairs of the Australian Competition and Consumer Commission and the Productivity Commission, Rod Sims and Peter Harris, were public servants at the heart of these policy issues. Both were asked if they had any idea of this ultimate source.

One noted that the language wasn't really academic and so it sounds like a policy draft rather than a lift from a paper of some sort. The other simply recalled that this formulation was common in economic theory. However, as the circle expanded to others, Darryl Biggar advised:

When I finished my PhD I had never heard of this particular definition of economic efficiency. It was not until I came 'down under' (to New Zealand Treasury in 1994) that I first heard of it. When I started at the ACCC I was struck that everyone uses exactly the same formulation of economic efficiency.

Peter Harris noted that Rod Shogren had been the Head of the Structural Policy Division. Rod advised that he had moved on from his position by the time of the submission but his suspicion was that 'there is no primary source as such, but that the drafter drew upon the generally accepted view of efficiency'. He advised:

I am rather puzzled by your attempt to find a 'source' for the notion that efficiency to economists has three elements. I would have thought that that was simply the conventional economics of quite a few decades. For example, I checked the microeconomics text I used at Stanford in 1982-83 and found that the exposition there was in terms of technical, allocative and dynamic efficiency.

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<sup>1</sup> The Treasury Submission and the Hilmer Report both acknowledge that efficiency is only one goal of competition policy, together with equity or social goals. Hilmer concludes its discussion of other social goals by noting 'it is possible for governments to achieve objectives of these kinds in ways that are less injurious to competition and the welfare of the community as a whole'.

He kindly provided copies of the pages from the text (Kohler 1982) and the definition of efficiency provided there is reproduced to contrast to the Treasury version:

In one way or another, the concept of efficiency is always concerned with the possibility of getting more output from given inputs. When the criterion of efficiency is applied, for instance, to the operations of a single firm, economists compare physical output with physical inputs. **Technical efficiency or X-efficiency** exists within a firm when it is impossible, with given technical knowledge, to produce a larger output from a set of inputs (or, as expressed in Chapter 5, when it is impossible to produce a given output with less of one or more inputs without increasing the amount of other inputs).

When the yardstick of efficiency, however, is applied to an entire economy economists compare the total economic welfare of all people (which is the ultimate output of the economy) with the total of resource services utilized (or the economy's inputs). **Economic efficiency** exists within an economy when it is impossible, with given technology, to produce a larger welfare total from given stocks of resources.

Note: The concept of economic efficiency is also referred to as **allocative efficiency** (because it is about the best allocation of given resources and the goods made with their help) and as **static efficiency** (because it is applied to a short time period (called 'the present') in which the economy's stocks of resources and technical knowledge are fixed). A third and still broader approach is to survey the relationship between output and inputs not only economy wide but also over an extended period, reaching far into the future, in which resource stocks and technology can vary. This measure of performance is called dynamic efficiency and exists within an economy when it is impossible to produce a larger welfare total by improving technology or the size and quality of resource stocks. However, economists for many decades have focused their attention on the static notion of economic efficiency.

In pursuing the quest for the origin of the Hilmer trilogy, the challenge is not the idea that there are productive, allocative and dynamic elements to efficiency; it is this particular choice and the descriptions provided. There are differences between the descriptions in the Treasury troika and the approach in this text.

Categorising the components of efficiency was a feature of the study of comparative economic systems in the 1980s. Kohler's (1989) textbook in this field had a chapter on full employment and efficiency in which he introduced technical and economic efficiency (and their alternative names of X-efficiency and allocative efficiency). Kohler didn't refer to dynamic efficiency in this work, but the next chapter on growth and equity defined 'economic growth' as 'a sustained expansion over time in a society's ability to produce goods'. He identified forms; 'extensive growth' from the availability of more

resources (for example, labour) and 'intensive growth' from better methods of production or higher quality resources. This equates to the idea of dynamic growth he used in his microeconomics text.

An alternative view is presented by Buck, who having stated 'any survey of the literature on comparative economic systems reveals a wide spectrum of efficiency concepts' proceeds to identify five components of efficiency. He distinguishes first between micro-static and micro-dynamic concepts.

Within micro-static efficiency he identifies allocative, technical and distributive efficiency. The first two are familiar. The third is an unusual element and is defined as 'the extent to which a distribution of income and wealth corresponds to some undisclosed, desirable distribution'. This latter is now more commonly regarded as an equity consideration excluded from discussions of efficiency.

Micro-dynamic efficiency is introduced as 'allocative efficiency in the context of an infinite time horizon'. He divides this into two components; current versus future consumption and the responsiveness of economic units. The former is the question of capital accumulation versus current consumption, that is, a focus on investment. The latter includes 'the extent to which new products and techniques are developed to facilitate improvements in allocative and technical efficiency and the extent to which new information is actually disseminated through the productive system and innovations implemented'.

Buck equates this responsiveness of economic units to Marris and Mueller's term 'adaptive efficiency'. Marris and Mueller will be considered again later.

The idea that the Treasury troika had developed as, to use Galbraith's (1958 p. 8) term, 'conventional wisdom' within policy circles is supported because it had featured in two earlier Treasury submissions, to the Cooney and Lee Committees (published together as Treasury 1991). The three components are introduced in the first of these submissions with the statement:

The presence of competition is important to maintaining economic efficiency and community welfare. The following teases out some of these components of economic efficiency.

There then follows longer descriptions of the components of the troika.

The submission to the Lee Committee moves closer to the form relayed to Hilmer. The submission read:

Economic efficiency is directly about producing more income. An efficient policy change is one where, even though there may be winners and losers, the size of the income 'pie' is increased, leaving compensation packages and the tax and transfer systems to ensure that the gains are fairly distributed.

In the context of newspapers, economic efficiency requires three conditions be satisfied.

- Firstly, any given newspaper must be produced at least cost (known as **technical or productive efficiency**).
- Secondly, for **allocative efficiency**, resources used in the newspaper industry must be allocated to the highest valued uses (i.e. those newspapers that provide the greatest benefit relative to costs) and that the total amount of resources devoted to the newspaper industry be such that none of those resources devoted to the newspaper industry could be better employed in any other industry.
- Thirdly, the industry must make timely changes to technology and product in response to changes in readers' tastes and in productive opportunities (this is **dynamic efficiency**).

In these submissions the reference to efficiency was a pathway to advocating for a policy of contestability, dynamic competition and the then-favourite principle based on Porter, that the pathway to international competitiveness was domestic competition. It was these elements that featured most in the Treasury contribution to the Economic Planning and Advisory Council seminar *Competition and Economic Efficiency* in June 1992 authored by David Imber (1992). The contribution's section on 'analytical perspectives' commenced by noting that 'competition policy has important efficiency and equity characteristics'. He later notes that the ideal of perfect competition is unrealistic and that dismissing the idea 'opens the door to a number of more subtle concepts, including contestability, strategic behaviour and dynamic competition'.

If it is accepted that the Treasury troika had become conventional wisdom by 1991, and that in part this was based on the textbooks some Treasury staff had used, should it be accepted without question or should a more authoritative statement be sought?

Motta's *Competition Policy* provides a more recent well-reasoned approach using the three elements only, including neatly drawn diagrams of the welfare losses from allocative and technical inefficiency. It certainly is a more reasonable authority to use than Hilmer.

However, this doesn't answer the original mission to trace the intellectual heritage of the troika. That is an interesting journey that sheds more light on the question of what 'dynamic efficiency' is.

The concepts of allocative and productive efficiency are well developed in economic theory.

The concept of allocative efficiency derives from the analysis of monopoly. As Alfred Marshall observed:

The prima facie interest of the owner of a monopoly is clearly to adjust the supply to the demand, not in such a way that the price at which he can sell his commodity

shall just cover its expenses of production, but in such a way as to afford him the greatest possible total net revenue.

This lower level of output is then an allocative efficiency loss – consumers in aggregate were prepared to acquire more of the good than the monopolist provided at a price that recovered the monopolist's cost.

Harberger (1954) formalised the quantification of the welfare loss, drawing what became known as 'Harberger triangles' of the combined consumer and producer surplus foregone as a consequence of the lower production (and higher price) levels. In his 1954 paper Harberger estimated the welfare loss from monopoly across the entire US economy at less than one per cent of output; that is that the allocative losses were much less than previously believed.

In 1966 Leibenstein reviewed the work of Harberger and others and concluded that, although the loss due to allocative efficiency was low, 'microeconomic theory focuses on allocative efficiency to the exclusion of other types of efficiencies that, in fact, are much more significant in many instances'.

He concluded that:

These facts lead us to suggest an approach to the theory of the firm that does not depend on the assumption of cost-minimization by all firms. The level of unit cost depends in some measure on the degree of X-efficiency, which in turn depends on the degree of competitive pressure, as well as on other motivational factors. The responses to such pressures, whether in the nature of effort, search, or the utilization of new information, is a significant part of the residual in economic growth.

Two motivations are identified for why monopolies (or any firm with significant monopoly power) might exhibit X-inefficiency. The first is managerial slack created by the lack of incentive for management to be more efficient, and the second is that in competitive markets a natural selection process eliminates inefficient firms.

Farrell (1967) identified a process for the measurement of productive efficiency. This model developed the idea of a production frontier of a set of firms and defined both the technical efficiency of the firm by reference to the frontier and the price efficiency of the firm in the relative use of inputs. Charnes, Cooper and Rhodes (1978) formalised this into Data Envelopment Analysis as a nonparametric method for the estimation of production frontiers. In sum this is the concept of productive efficiency.

There is possible debate over whether productive efficiency, technical efficiency and X-efficiency measure the same things. Productive efficiency and technical efficiency can be differentiated by having the former refer to the choice of the most efficient

combination of inputs to produce a given output at the lowest average total cost; while the latter refers to how much output can be achieved for each unit of input. That is, productive efficiency is the choice of the most efficient technology, while technical efficiency relates to how the chosen technology is operated.

X-efficiency is an all-encompassing term to reflect the idea that a profit-maximising firm in a competitive market would be expected to exhibit no productive or technical inefficiency. As explained by Leibenstein in a later paper, X-efficiency is more an explanation of how these inefficiencies could arise rather than being a different kind of inefficiency, saying:

I use the term 'X-efficiency' for what some writers may mean when they speak of 'technical efficiency' or 'efficiency in the engineering sense'. My reason for this is to escape from some of the behavioural nuances and suggestions contained in the words 'technical efficiency' (or, in some uses, 'entrepreneurial efficiency').

But what of dynamic efficiency? Huerta de Soto credits Xenophon (Oeconomicus circa 362 BC) with making a distinction between two different ways to increase one's estate and that 'these are ultimately equivalent to two different aspects of efficiency'. The first is by good management of available resources and the second is 'to increase one's estate through entrepreneurial action and by doing business with it'.

Of the later writers identified by Huerta de Soto as contributors on dynamic efficiency, only the works of Schumpeter pre-date Buck's reference to dynamic efficiency.

Marris and Mueller (1980) provide the link in the published literature. They describe a market economy as a kind of self-organising system, from which they conclude:

This consideration leads to a third concept of efficiency- which might be called 'adaptive efficiency' to be added to two existing concepts of allocative efficiency and what is now (following Harvey Leibenstein) called X-efficiency.

They then explicitly link their concept of 'adaptive efficiency' to the work of Schumpeter, and identify that it comes from his *Economic Development*, first published in German in 1911.

However, Schumpeter himself gives (1934, p. 60n) an earlier source:<sup>2</sup>

Improvement, according to this traditional view, is something which just happens and the effects of which we have to investigate ... What is passed over is the

<sup>2</sup> J B Clark in the introduction to *Essentials* apologised for not providing many citations, but of five whose works he says were worthy of mention one was Eugen von Böhm-Bawerk, who was Schumpeter's teacher.

subject matter of this book, or rather the foundation stone of its construction. J. B. Clark (*Essentials of Economic Theory*), whose merit is in having consciously separated 'statics' and 'dynamics,' saw in the dynamic elements a disturbance of the static equilibrium. This is likewise our view, and also from our standpoint an essential task is to investigate the effects of this disturbance and the new equilibrium which then emerges.

Clark (1907) introduces dynamics by saying:

The static state which has thus far been kept in view is a hypothetical one, for there is no actual society which is not changing its form and the character of its activities.

He identified five 'influences that disturb the static equilibrium' (1907, 203:206); growth of population, increase of capital, changes of method, changes in organisation and changes in consumers' wants.

Of Clark's work, Spiegel (1996) wrote:

What was perhaps the most enduring of Clark's work was the search for economic dynamics, which he himself pursued and which became the concern of many outstanding economists of the following generations ... Although later generations of economists would define static and dynamic analysis in terms different from those employed by Clark and although their attempts at forging an economic dynamics would differ from Clark's, it was his work that had shown the way toward a new goal in economic theory.

Elliott (1983) claims that Schumpeter's analysis is an improvement on Clark's in three ways, of which only the first is relevant to the present inquiry. This is Schumpeter's consideration that only changes in method and organisation are qualitative phenomena of economic development. Schumpeter regards the first two of Clark's factors as mere quantitative expansion, and the final one as a change in the composition of the equilibrium.

Schumpeter's approach to dynamic factors is focused therefore on innovation. This was further advanced in his *Business Cycles* and attached to the phrase 'creative destruction' in *Capitalism, Socialism and Democracy*. In the context of competition policy, it is important to note that Schumpeter's approach was based on the premise that firms would innovate to be able to take monopoly rents; he in particular defended large firms as being the source of most innovation.

Spiegel provides some additional references to Clark and Schumpeter on the distinction between statics and dynamics, including Mill in both *Principles of Political Economy and Logic*, and Samuelson. The latter, says Spiegel, contributed pioneer articles about dynamics and comparative statics in the 1940s that were later incorporated in *Foundations of Economic Analysis*.

Samuelson's work is focused on the process of adjustment by which the economic system achieves its equilibrium writing (1947, p. 257):

It is the task of comparative statics to show the determination of the equilibrium values of given variables (unknowns) under postulated conditions (functional relationships) with various data (parameters) being specified. Thus, in the simplest case of a partial-equilibrium market for a single commodity, the two independent relations of supply and demand, each drawn up with other prices and institutional data being taken as given, determine by their intersection the equilibrium quantities of the unknown price and quantity sold. If no more than this could be said, the economist would be truly vulnerable to the gibe that he is only a parrot taught to say 'supply and demand'. Simply to know that there are efficacious 'laws' determining equilibrium tells us nothing of the character of these laws. In order for the analysis to be useful it must provide information concerning the way in which our equilibrium quantities will change as a result of changes in the parameters taken as independent data.

What, if anything, can be learned from this journey through the history of an economic idea?

Firstly, if the objective is something that looks like the Hilmer trilogy or the Treasury troika, then Marris and Mueller are probably better cited as the origin.

But more importantly, it has been learnt that a discussion of economic efficiency could equally start by making the distinction between the static and dynamic elements. However, in doing so, a problem in determining what this distinction really means is identified.

The focus of price theory on a market at equilibrium provides the basis for the description of productive and allocative efficiency as 'static efficiency'. This idea is reinforced by the assumptions inherent in the theory of 'perfect competition'; an artificial state in which buyers and sellers are fully informed.

The process by which that equilibrium is supposedly reached is not discussed in this environment. Most typically the theory for how prices magically equal marginal cost which equals average cost relies in part on an iterative process of entry and exit from the market.

Hayek focused on this aspect of competition noting:

In a competitive industry at any rate – and such an industry alone can serve as a test – the task of keeping cost from rising requires constant struggle, absorbing a great part of the energy of the manager.

This is the function of competition as an information discovery mechanism through price signals.

It is by the responses of consumers in the market that producers gain their information on consumer preferences; it is by the responses of producers in

the market that consumers gain their information on relative costs.

In particular, the mechanism by which X-efficiency is achieved is more really a dynamic process (Jameson 1972).

The distinction between the dynamic processes by which an equilibrium is reached, and the different processes by which a new equilibrium is created is the distinction between Clark (and Samuelson) and Schumpeter in the categorisation of dynamic elements.

In this view, the concepts of allocative and productive efficiency are therefore not wholly 'static'. They do include the process of adjustment over time. In particular, they would include the process of investment in expanding the capacity of existing technology to meet increased demand from increasing population or income.

This suggests that the components of economic efficiency need to be considered as something other than a distinction between static and dynamic, and should instead be described as the differences between efficiency under existing technology and efficiency under new technology.

The dynamic processes that Hayek identifies are iterations that occur between buyers who have unchanging preferences and producers who have unchanging technology. This does not equate directly to rigid unmoving demand and supply curves. From period to period the demand curve will move depending on factors such as income level and the prices of other goods (both complements and substitutes). From period to period the industry supply curve will move depending on factor costs and production decisions made by producers. Even the reduction in costs through the 'experience effect' fits within this adaptive framing.

The dynamic process that Schumpeter identifies is far more transformative, though it doesn't need to qualify as the evocative 'creative destruction' to count as innovation. It is the dynamic process whereby the technology employed changes. This creates a fundamentally different supply curve; in the extreme it also transforms demand through product innovation. What, for example, was the demand for smart phones before Apple released the iPhone?

Finally, if the idea that dynamic efficiency entails innovation rather than just small inter-temporal adjustments within existing technology and preferences is acknowledged, then the understanding of efficiency needs to be informed by an understanding of innovation.

There is both an allocative and a productive dimension to innovation. The allocative dimension is the decision made by firms in each period on how

much of their resources to devote to innovation. This itself is made up of components, the investment in research and creativity leading to invention, and the investment in development and design leading to an innovation being introduced. The productive dimension is how well that investment is deployed; how much innovation bang the firm gets for a buck invested in R&D.

## Conclusion

This study of the components of economic efficiency was motivated by work to interpret the objectives of Australia's national energy laws which are to promote the efficient investment in, and operation and use of, energy services for the long-term interests of consumers.

There is, of course, a very extensive literature on welfare economics, and 'new welfare economics' that can inform the static analysis of markets. This literature is important to understanding the conditions for efficiency, but is outside the scope of the study.

It is, unfortunately, common for economists to ignore the history of economic thought. It has progressed from being a unit that serious students would be expected to study to one that is now absent from some university curricula. There is, apparently, an assumption that anything worth learning from the ancients is incorporated in the orthodox canon. Hopefully this discussion, in which the history of one idea is pursued, identifies the value of historical inquiry to improved understanding.

When it is necessary to 'unpack' the components of efficiency the common resort to the Hilmer trilogy is an inadequate response. The first distinction should be that between the static and dynamic elements; each has allocative and productive dimensions. After that distinction, discussion should focus on the role of innovation as the source of dynamic efficiency.

However, in practical application, despite the variety of ways to dissect the concept of efficiency, the outcome of efficiency in all cases is the same – consumers, collectively now and in the future, pay no more than they need to.

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## Critical Issues in Regulation – From the Journals

**OECD Economic Surveys Australia 2017**, OECD, Paris, March 2017.

The Organisation for Economic Cooperation and Development (OECD) publishes economic surveys for its member countries. The **latest OECD Economic Survey** for Australia comments broadly on the main areas of economic policy in Australia: macroeconomic policy; taxation policy (focusing on the direct/indirect tax mix); industry policy (emphasis on R&D and business innovation); policy regarding infrastructure; addressing inequality and tackling environmental challenges. The OECD's report comes in two forms: a PowerPoint presentation covering the main themes; and a written formal report titled Overview. The exposition makes frequent use of charts which, inter alia, compare Australia with other OECD countries; sometimes with individual countries and at other times with the OECD average.

The OECD comments on a number of infrastructure issues, including suggestions to: ensure robust and transparent cost-benefit analysis; simplify infrastructure investment processes; and improve public-private partnership processes.

In energy, the OECD recommends to 'harmonise interstate regulation; continue privatisation; remove ceilings on retail electricity prices; and bring in smart meters. The OECD mentions that 'energy-sector-efficiency reforms are underway' including harmonisation of regulatory frameworks; privatisation; strengthening of competition in retail electricity prices; and the introduction of demand-side initiatives such as the deployment of smart meters.

The OECD also comments on aspects of telecommunications policy. In fixed-line, the wholesaler (National Broadband Network) 'needs to address concerns that it is not lowering its prices sufficiently quickly' as the market for broadband develops. In mobile telecommunications, stronger encouragement of new entrants to retail markets, for example via policy on the sale of mobile spectrum, 'would be welcome' to the OECD. Australia currently has only three mobile telecommunications operators and there is a 'growing view among international experts' that the presence of a fourth operator raises competition. Allowing mobile operators access to the towers being deployed for broadband in rural areas would be 'one practical step' to improve choice and make the mobile market more attractive for new entrants.

In transport, the OECD suggests to 'simplify and harmonise road and rail regulation across states'; bring in a road-freight pricing scheme; and to consider reforming arrangements for managing and

funding road infrastructure funding. It points to reforms of heavy vehicles that are underway including consideration of regulation and charging of heavy vehicles and road administration and funding.

The Overview concludes with a short bibliography containing twenty-two items, including six OECD documents.

**The CMA's Analysis of the Retail Energy Market: An Examination Using Textbook Economics**, Stephen Littlechild, University of Cambridge Energy Policy Research Group (EPRG) Working Paper Number 1703 and Cambridge Working Paper in Economics Number 1707, 5 March 2017.

This paper is about a report on the retail electricity market in Great Britain by the Competition and Markets Authority (CMA) released in June 2016. The CMA concluded that there was 'weak customer response', which constituted an Adverse Effect on Competition. It estimated an average detriment of about £1.4 billion per year over the period 2012 – 2015, reaching almost £2 billion in 2015, using a 'direct approach'. The CMA's 'indirect approach' yielded an average detriment of £720 million per year over the period from 2007 to 2014 and reached about £1.1 billion over the period from 2012 to 2014, or £1.5 billion with a more stringent efficiency benchmark.

This new Working Paper is described by its author, Professor Stephen Littlechild, as an 'attempt to understand better the CMA's analysis of the domestic retail energy market in Great Britain'. Stephen Littlechild uses diagrams from elementary economics textbooks to guide his examination of the CMA's calculations of what he describes as the 'alleged customer detriments' caused by market power. The author contends that the CMA's calculations do not really relate to, or measure, the extent to which prices are above 'the competitive level'. Rather, the author argues that they concern something quite different; namely the detriment to customers because of suppliers being less efficient than the CMA considers they should be. According to Stephen Littlechild, the CMA's calculations do not, therefore, indicate that the retail energy market is characterised by market power, price discrimination or excessive prices in the conventional sense. Nor, in the author's view, is the CMA report convincing about the link between weak customer response and inefficiency. The author's conclusion is that the CMA report has pointed policymakers and the media in an unhelpful direction.



The paper concludes with a bibliography containing twenty-six items, including CMA and Ofgem reports and papers; academic articles and books.

**A Novel Inclusion of Intermittent Generation Resources in Long Term Energy Auctions**, Rodrigo Marambio and Hugh Rudnick, *Energy Policy*, 100, January 2017, pp. 29-40.

This paper investigates long-term energy auctions. Such auctions are a tool used in attracting new investments into power systems. The authors focus on Latin America, where emerging-economy characteristics and their corresponding risks are present.

The authors contend that, while the focus of these auctions is long term, there are short-term issues with the auction designs leading to a sub-optimal energy allocation in the short term. This is an issue which is becoming more evident in the presence of renewable energy sources.

A mechanism for obtaining the optimal allocation in long-term energy auctions, considering the short-term generation profiles, is proposed. The new mechanism takes into account intermittent and conventional base-load technologies and their risk aversions. Simulation models are used to model scenarios in the Chilean power market, with different levels of renewable energy penetration.

It was found that, in comparison to a traditional mechanism which only follows the demand profile, significant cost savings could be achieved. Due to the increasing share of renewable energy entering the power system, in the short term, a change in the mechanisms for energy-auction allocations is needed in order to exploit the synergies amongst participants. The authors claim that this is due to the increasing level of uncertainty for all electricity-market participants.

The reference list contains eighteen items, including academic publications, proceedings from IEEE Power Engineering Society meetings and a report from the World Bank.

This article can be accessed by subscription to *Energy Policy* or purchased on-line.

**Overcoming Barriers to Electrical Energy Storage: Comparing California and Europe**, Francisco Castellano Ruz and Michael G Pollitt, *Competition and Regulation in Network Industries*, 17, 2, June 2016, pp. 123-149.

Electrical energy storage (EES) is a technology which can increase the reliability and resilience of the electrical grid, especially in the presence of unpredictable energy sources such as wind and solar. Current EES technology is based on electrochemical batteries, and the authors believe

this will continue to be the case over the next decade due to their versatility, maturity and declining installation costs.

While there has been strong progress in EES in California, similar advance has not been observed in Europe (represented by the UK, Germany and Spain). As of 2015, there were 145 electrochemical battery EES projects under operation or announced in California, compared with only 65 in Europe (22 in the UK, 29 in Germany and 14 in Spain).

The authors outline several reasons why this difference is observed, including differences in the regulatory frameworks and differences in the characteristics of the California and European electricity markets.

Germany's location in the centre of Europe causes it to benefit from an interconnection of 20GW with neighbouring countries, reducing its need to manage supply and demand for electricity within its own borders. Spain has an oversized power system, capable of supplying 100GW, while the peak demand in 2014 was only 39GW. Due to the great number of plants which are not operating, energy prices are kept low and it is difficult to obtain returns. This increases risks for new technologies and developments. Spain is also not required to reduce its greenhouse gas emissions beyond the EU requirement, and with subsidies for renewable sources removed in 2013, the requirement for new plants and EES technology is minimal over the next decade.

In contrast, the situation in California is quite different, with significant changes already underway. The state has targets which require increases in its share of electricity derived from renewable sources and 16GW of gas-fired power plants are to be retired. The regulator has identified the need for 4.6GW of new flexible capacity, some of which could be EES.

While the UK is similar and the need for flexibility in the national grid is increasing, especially as the UK intends to meet its target of an 80 per cent reduction in greenhouse gas emissions, EES has not been deployed to a great extent. The authors claim that this is due to the regulatory differences between California and the UK. The regulations cited are: (1) FERC Order 755: Pay for Performance; (2) FERC Order 784: Third Party Provision; (3) FERC Order 1000: Transmission Planning and Cost Allocation; (4) the Assembly Bill 2014; and (5) the California Energy Storage Roadmap (CESR).

While the need for EES in future is unknown and largely depends on the need for variable renewable energy sources, the authors make several suggestions aimed at allowing the full value of the services EES could provide to be more fairly captured by individual EES facilities. These include:

(1) a clear definition and classification of EES in legislation, allowing owners and investors to have clear sight of the revenues across the lifetime of the asset; (2) creation of new markets for ancillary services; and (3) a technology-neutral market design which can capture all the value that each technology can provide to the system.

The reference list contains fifty-eight items, including academic publications and reports from government agencies.

This article can be accessed by subscription to *Competition and Regulation in Network Industries*.

### **Evidence for a Ladder of Investment in Central and Eastern European Countries,**

Goran Serdarević, Matt Hunt, Tom Ovington and Clive Kenny, *Telecommunications Policy*, 40, June 2016, pp. 515-531.

This article is about the Ladder of Investment (LoI) approach to access pricing in telecommunications. As described by the authors, the LoI is designed to 'enable entrants to make progressively greater investments in their own networks, whilst decreasing their dependence on the network of the incumbent'. The authors ask whether the LoI approach will necessarily lead to inter-platform competition, and test this by empirical analysis of data from Central and Eastern European (CEE) countries. The paper also compares CEE countries with Western European (WE) countries.

The authors use a bi-annual dataset from 2004 to 2011 in an econometric analysis of adoption of both bitstream and unconditioned local loop (ULL). Explanatory variables tested include: population density; GDP per capita; household size; and wireline penetration. The results suggest that 'it does not appear that new entrants have used bitstream as a stepping stone to ULL in CEE countries' (p. 524) and that 'there is a lack of support for the view that new entrants have used ULL as a stepping stone for building alternative infrastructures' (p. 525).

The main overall conclusion of the paper is that the findings are consistent with the view that the LoI is an 'approach that may partially explain entry and expansion in some countries' (p. 528). However, this conclusion seems likely to apply in countries which have specific characteristics such as: operation of widely operated access-based regulation in the first half of the 2000s; presence of a ubiquitous legacy network; and high fixed-line penetration.

There are twenty references in the list, mainly to articles in professional journals. Dates of publication are fairly evenly spread over 2003 to 2015. There are multiple references to *Telecommunications Policy*, *Information Economics and Policy* and

*Communications Strategies*. Authors cited more than once are Martin Cave and Mark Bourreau.

The article can be accessed by subscription to *Telecommunications Policy*.

### **Pricing Strategies and Competition in the Mobile Broadband Market,**

Joan Calzada and Fernando Martinez-Santos, *Journal of Regulatory Economics*, 1, 50, August 2016, pp. 70-98.

This paper studies mobile broadband plan prices across 37 countries between 2011 and 2014. An empirical model using data from the 'International Broadband Data Report', prepared by the Federal Communications Commission shows that the prices depend on: the penalty being used; the plan characteristics; and also the technology provided. The authors also found that plans which bundle mobile broadband services with a handset tend to have longer contract durations and are, on average, more expensive than plans which only include a SIM card.

The main contribution of this paper, according to the authors, has been to show how usage-based plans use data and voice allowances to segment customers according to their needs. The empirical models presented are able to identify the impact that caps on voice and data volume, and also their respective penalties, have on the monthly price of mobile broadband services. It was found that download speed plays only a small role in tariff structure, most likely because of the technological limitations of wireless technology. The authors also note that broadband plans no longer distinguish between on-peak and off-peak calls, or between mobile-to-mobile or mobile-to-landline calls.

Bundling of handsets has also been shown to explain how operators modify their prices. Often, operators choose to offer smartphones at a discounted rate, but this is partly subsidised by higher prices on broadband services. The cost of the device is often distributed over the duration of a long contract. The authors found that, while contracts offering iPhones or Samsung phones are more expensive than those only offering a SIM card, plans bundled with other brands of smartphones do not present a significant price difference over SIM-only plans.

The reference list contains forty-six items, mostly textbooks and scholarly publications. Journals cited include the *Rand Journal of Economics*, *Quarterly Journal of Economics*, *Econometrica* and *Telecommunications Policy*.

The article can be accessed by subscription to the *Journal of Regulatory Economics* or purchased online.

**Completing the Internal Market for Parcel Delivery and E-Commerce: State of Play and Possible Reforms**, Alex Dieke, WIK, published by the European Parliament, November 2016.

This paper is an analysis prepared for the IMCO Committee's Working Group on the Digital Single Market (DSM). It discusses current performance of parcel delivery in Europe and related policy concerns about these markets. The report identifies policy options, discusses the European Commission's proposed parcel regulation, and makes recommendations to improve and align the proposed regulation.

The Single Market for Delivery of parcels and letters largely remains fragmented into domestic markets, with large differences between the Member States: Consumers and shippers in different Member States face very different prices, service levels, and there are big differences in volumes per inhabitant. At present, there is no trend towards convergence of domestic parcel delivery markets into a Single Market. Effective and affordable parcel delivery is a pre-condition for cross-border trade in physical goods. Shortcomings in the supply of cross-border parcels represent an impediment to cross-border e-commerce, and thus the Digital Single Market. Parcel delivery is a competitive business in most Member States, while letters and packets up to two kilograms had historically been part of the postal monopoly. Effective cross-border solutions for e-commerce require cooperation and inter-connection of major operators in all Member States, and should not be limited to traditional postal operators. For many intra-EU destinations, prices for cross-border parcel delivery are very high, and volumes are low. Specific costs for cross-border parcels cannot justify current high prices in many Member States. But as volumes are low, these costs are shared over few parcels so that average costs are high. Overcoming this 'vicious cycle' is the key challenge to promote cross-border e-commerce. Consumers are concerned with high shipping fees charged by e-retailers, but are not directly affected by the prices paid for parcel delivery by e-retailers. These concerns could only be addressed by regulating shipping fees for e-commerce (but not by regulating price charged by parcel operators). Nevertheless, restrictive pricing rules for e-commerce seem excessive in light of the complexities e-retailers face with cross-border operations today, and the infant stage of the e-commerce market in many Member States. More affordable prices and high-quality for cross-border deliveries will empower e-retailers to sell more to foreign customers. The European Commission's proposal for a Regulation on cross-border parcel delivery services (25 May 2016) offers effective measures to achieve these objectives by

requiring better interconnection and promoting competition for cross-border parcel service.

This paper recommends supporting the proposed Regulation in full, and presents four recommendations to improve and align the proposed regulation in order to ensure effective delivery solutions for the Digital Single Market:

- First, local governments should promote parcel delivery in Member States or regions where there is a lack of acceptable, affordable service.
- Second, the European Commission should take an active role in facilitating cooperation among NRAs in order to ensure that the reference offers approved by national regulatory authorities (NRAs) will create similar, standardised terms of access across the European Union.
- Third, Article 6 of the proposed Parcel Regulation (transparent and non-discriminatory cross-border access) should be edited to specifically apply to returns solutions.
- Fourth, European Union institutions should monitor shipping options and fees offered by e-retailers for cross-border delivery. This monitoring of e-commerce market practices will help to assess (*ex post*) the impact of the DSM parcel initiative, and ensure that improvements in parcel delivery for e-retailers are translated into benefits to consumers buying online.

The reference list contains twenty items, including official reports and papers, and reports by consultants.

**An Investigation into the Non-Bulk Rail Freight Transport in Australia**, Hadi Ghaderi, Stephen Cahoon and Hong-Oanh Nguyen, *Asian Journal of Shipping and Logistics*, 1, 31, March 2015, pp. 59-83.

The last decade has seen significant growth in freight transport in Australia, with non-bulk freight being the fastest growing segment. However, the share of rail in the non-bulk market has declined significantly. This paper focuses on three operational and efficiency areas which attempt to explain the decline of rail usage in non-bulk freight: (1) the level of track compatibility; (2) the demographics of non-bulk freight; and (3) the current status of intermodal terminals. The authors compare the Australian rail-freight sector to the European system, focusing on geographical features, growth, and freight distribution.

The authors identify several key issues with the rail-freight industry in Australia, including track incompatibility, long transit times, congestion and poor punctuality levels. It is suggested that track standardisation introduces mobility and flexibility

benefits for the use of rail assets, enabling operators to move rolling stock, locomotives and wagons around the entire nation to meet demand changes. In more congested parts of the network, particularly in ports, improvements need to be made to rail track and terminals. It is suggested that the number of stops be reduced and the amount of time spent in passing loops be reduced. This will boost train capacity and allow rail to offer a substantial cost benefit over road.

While the authors acknowledge recent investment, such as the new intermodal facility at Moorebank in Sydney, they believe these to be short-term solutions, which do not address the inadequacy of rail and road infrastructures to accommodate the increasing throughput. It is suggested that, if Woolworths were to shift its Brisbane-Melbourne operations from road to rail, the Brisbane-Sydney leg of the journey will face capacity constraints and will not be carried in an efficient manner. Choke-points in the rail-freight system are identified at metropolitan Sydney and Melbourne, with this issue only becoming more important as competition between freight and passenger trains increases. The authors suggest a decentralised system as a solution to ease congestion in metropolitan areas, citing successful implementation in the dry ports of Liege and Brussels in Belgium.

In the authors' view, greater intermodal infrastructure is required to create seamless interaction between different modes of transport. However, they found that rail infrastructure in Australia is fragmented and poorly maintained, suffering from issues such as track incompatibility. It is also suggested that infrastructure policy, planning and investment for rail and road freight be coordinated, rather than isolated, as traditionally has been the case. It was also found that road and rail industries tend to focus exclusively on their competitive position in different corridors, as opposed to broader national land-freight strategies, as indicated in the AusLink green and white papers. Regulations, especially in the areas of infrastructure pricing and funding, must also be applied equally to all transport modes in order to minimise biased competition and maximise usage.

The reference list contains fifty-six items, including academic publications, government reports and articles from the World Bank, OECD and various consultant economists from Deloitte and Ernst and Young.

This article can be accessed by subscription to the *Asian Journal of Shipping and Logistics*.

**The Cost of Capital for Financing Electricity Generation in the UK**, Richard Hern, Daniel Radov, Alon Carmel, Marija Spasovska and Jinzi Guo, *NERA Economic Consulting*, November 2016.

In 2015, the UK Department of Energy and Climate Change commissioned NERA Economic Consulting to undertake a study on financing costs and investor hurdle rates, the minimum Internal Rate of Return (IRR) at which investors would be willing to commit capital to a project.

This paper reviews the available evidence on hurdle rates and produces estimates of whole-project hurdle rates for a set of energy technologies covering renewable technologies. The Capital Asset Pricing Model (CAPM), which remunerates only systematic risk, is used as the foundation for assessment of hurdle rates. Due to the limitations of the CAPM, it is augmented with asymmetric risks and option values which are not captured within the standard CAPM.

This study formed part of the UK Government's evidence base on the levelised cost of energy of different technologies, including renewable energy technologies and fossil-fuel generation. It assesses the impact of different risks and the subsidy regime on the cost of capital for investors in such assets.

A body of evidence was used to inform estimates of hurdle rates, including: surveys of investors; in-depth interviews; direct market evidence of returns; reports by regulators; independent third-party reports; and NERA bottom-up WACC calculations for quoted UK electricity companies from stock-market data. Calculations of the impact of the risks on IRRs were completed using discounted cash-flow modelling. Specific risks (such as allocation risk, construction risk, development risk and policy risk) and fuel and carbon-price volatility were also analysed.

Hurdle rates were calculated over different time horizons across various energy sources including solar, biomass, wind, waste, hydro, tidal, geothermal, gas, coal and various forms of coal-seam gas. It was found that solar (photovoltaic) generation generally had the lowest hurdle rates, while the various forms of coal-seam gas had the highest hurdle rates.

The authors note that, since publication, there have been several significant regulations affecting the UK electricity market, such as: the Climate Change Levy tax regime; the removal of exemptions for renewable energy; and the early closure of the Renewable Obligation scheme.

This report is **available here**

**Uber and the Rule of Law: Should Spontaneous Liberalisation be Applauded or Criticised**, Danien Geradin, *Competition Policy International*, 1, 11, March 2016.

This article can be accessed on-line through *Competition Policy International*.

This paper is about Uber, a ride-sharing service which delivers similar services to taxis, described by the author as a growing trend of 'spontaneous liberalisation', where new entrants into the market ignore prevailing regulations and often push the boundaries of the law. The author argues that the taxi industry has already changed for the better, with the development of smartphone apps, and improved quality of service.

Since its inception, Uber has polarised the community, with traditional taxi operators accusing Uber of engaging in unfair competition by failing to comply with regulatory requirements. Politically, Uber has been controversial, with many politicians concerned about the loss of well-paying jobs, replaced by more precarious occupations. However, despite the hostility, customers have continued to use Uber, preferring its lower price and its higher-quality service. This author contends that Uber provides efficiencies such as: a reduction of transaction costs; central management of cars on the road; and information and pricing efficiencies.

The author attributes much of Uber's success to a regulated taxi industry which has not delivered the quality of service customers expect. For an industry which is surprisingly basic, responsible for moving passengers from point A to point B for a fee, the taxi industry is very heavily regulated. The number of licensed taxis is often strictly limited, with prices being fixed. While the burden placed on the taxi industry is relatively large, it has also been rather well protected since the regulations create barriers to entry and immunise it from competition. While the legality of Uber entering the market without complying with pre-existing regulations varies by jurisdiction, it is clear to the author that it has gained from the lack of innovation and competition in the taxi industry which is partly due to the immunisation from competition it has enjoyed.

The paper concludes by criticising the regulations imposed on the taxi industry, suggesting that regulators should revisit rules creating barriers to entry (such as caps on the number of taxis) and by ensuring that regulations which address market failure actually are successful. It is also argued that it is important that decades-old regulation changes with technological advances. While price regulations were designed to protect customers hailing a taxi on the street, such regulations may not be required for taxis booked online. Unlike hailing a taxi roadside, customers have the ability to request fee estimates and compare alternative providers prior to booking.

## Regulatory Decisions in Australia and New Zealand

### Australia

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

##### ACCC Final Access Determinations on Fixed-Line Services – Federal Court of Australia Dismisses Telstra’s Application for Judicial Review

See ‘Notes on Interesting Decisions’.

##### NBN Co SAU Variation – ACCC Issues Draft Assessment

On 28 March 2017 the ACCC issued a **Draft Assessment** of a variation of NBN Co’s Special Access Undertaking (SAU) to reject the inclusion of new technologies in the SAU.

##### Retail Electricity Prices – ACCC to Investigate and Report

On 27 March 2017 the Commonwealth Treasurer directed the ACCC immediately to commence an investigation into retail electricity prices. **Media Release here**

##### Australia's East Coast Gas Outlook

On 14 March 2017 ACCC Chairman Rod Sims, **addressed the 5th Annual Australia Domestic Gas Outlook Conference 2017**, and outlined his concerns following the ACCC’s April 2016 Inquiry into the east coast gas market.

##### Telecommunications Market – Reports on Prices and Competition

On 8 March 2017 the ACCC published its annual reports on prices and competition in the telecommunications sector. Data downloads have increased 52 per cent for fixed broadband and 69 per cent for mobile. **Read the report.**

##### Airport Monitoring Report Released

On 6 March 2017 the ACCC released the **Airport Monitoring Report for 2015-16**.

##### Wholesale ADSL Access Service Declared

On 3 February 2017 the ACCC released its decision to declare the Wholesale ADSL Service. The ACCC’s final report is available on the ACCC website: **Wholesale ADSL service declaration inquiry 2016**.

### NBN Wholesale Market Review

On 2 February 2017 the ACCC released its quarterly National Broadband Network **Wholesale Market Indicators Report** for the period ending 31 December 2016.

#### Superfast Broadband Access Service (SBAS) and Local Bitstream Access Service (LBAS) – Draft Access Determinations

On 9 January 2017 the ACCC released its draft decision for the declared superfast broadband access service (SBAS) and the local bitstream access service (LBAS). The draft decision report and draft FADs are available at: **Combined SBAS/LBAS FAD inquiry draft decision**.

#### GrainCorp – Outload Fee Surcharge Removed

On 20 December 2016 the ACCC welcomed that GrainCorp had removed its outload fee surcharge formerly imposed by GrainCorp upon customers for outloading grain delivered by rail from its upcountry storage and handling facilities to rival port terminals.

### Australian Competition Tribunal (ACT)

No matters listed

## Australian Energy Market Commission (AEMC)

### Consultation on New Plan for Power System Security

On 23 March 2017 the AEMC called for public submissions on a new plan to strengthen power system security. **The directions paper** recommends mechanisms to facilitate the ability of the power system to accommodate new technologies.

### Further Consultation on Reforms

On 7 March 2017 the AEMC announced a further round of consultation on the **Review of the Victorian declared wholesale gas market**. The final report is due 31 August 2017.

### Independent Review on the Future Security of the National Electricity Market – Submission

On 7 March 2017 the AEMC released its submission to the Independent Review on the Future Security of the National Electricity Market. **Read the AEMC submission.**

### Strategic Priorities – Advice to COAG Energy Council

On 16 February 2017 **the AEMC announced** that it would provide advice on strategic priorities for the energy sector to the COAG Energy Council. The Council formally asked the AEMC to provide this expert advice, and the AEMC received the terms of reference in December 2016.

### Embedded Networks – Advice to COAG Energy Council

On 27 January 2017 the AEMC announced it has started a review of regulatory arrangements for embedded networks at the request of the COAG Energy Council.

### Annual Report on Household Price Trends Released

On 14 December 2016 the AEMC released its **2016 Report on Household Electricity Price Trends**.

## Australian Energy Regulator (AER)

### TransGrid and Murraylink – Issues Papers Released

On 28 March 2017 the AER released Issues Papers for each of TransGrid and Murraylink. **See Media Release here**

### Tariff Structure Statements Approved

On 28 February 2017 the AER made separate announcements on the approval of revised Tariff Structure Statement (TSS) for New South Wales consumers; South Australian consumers; ActewAGL consumers and Queensland consumers.

### High Wholesale Electricity Prices in New South Wales and Queensland – AER to Report

On 13 February 2017 the AER announced it will **produce a report** on recent high price events, by 10 April 2017.

### Demand Management Incentive Scheme – Sector-Wide Views Sought

On 5 January 2017 the AER published a **Consultation Paper** to engage stakeholders in developing a new demand management incentive scheme and innovation allowance mechanism. Submissions were due 24 February 2017, and a final scheme and allowance mechanism is expected September 2017.

### Review of Expected Inflation

On 15 December 2016 the AER sought registrations of interest in the 2017 Review of Expected Inflation. Interested parties are referred to the **Post-Tax Revenue Model**.

### New Electricity Roll-Forward Model

On 15 December 2016 the AER published a **new version of the roll forward model** that applies to future electricity distribution determinations.

## National Competition Council (NCC)

### Certification of the Australian Water Access Regime

On 22 March 2017, the National Competition Council provided the Commonwealth Minister, the Treasurer, with its final recommendation on South Australia's application for certification of the South Australian water access regime. The Minister must make a decision within 60 days of receiving the Council's final recommendation. On 3 March 2017 the National

Competition Council released its draft recommendation which proposes that the regime be certified as effective for ten years.

## Australian Capital Territory

### Independent Competition and Regulation Commission (ICRC)

#### Regulated Water and Sewerage Services Prices 2018-2023

On 14 December 2016 the ICRC received an industry reference under section 15(1)(a) of the ICRC Act 1997 (Act) to undertake an investigation into, and determine a price direction for, regulated water and sewerage services provided by Icon Water Limited in the ACT.

## New South Wales

### Independent Pricing and Regulatory Tribunal (IPART)

#### Sydney Desalination Plant Prices from 1 July 2017

On 21 March 2017 the IPART released its Draft Report on charges associated with the Sydney Desalination Plant that will apply from 1 July 2017. [Draft Report available here.](#)

#### Prices for WaterNSW's Rural Bulk Water Services from 1 July 2017 (formerly State Water Corporation) – Draft Report

On 14 March 2017 the IPART released its Draft Report on what WaterNSW's can charge for its monopoly bulk water management services in rural NSW.

## Northern Territory

### Utilities Commission

#### Retail Electricity Pricing Order

On 3 January 2017 the Utilities Commission released a new pricing order for retail electricity, **effective 1 January to 30 June 2017.**

#### Retail Water and Sewerage Pricing Order

On 3 January 2017 the Utilities Commission released a **new water and sewerage pricing order**, effective 1 January to 30 June 2017.

## Queensland

### Queensland Competition Authority (QCA)

#### Regulated Retail Electricity Prices for Regional Queensland in 2017-18

On 24 February 2017 the QCA released its draft decision on regulated **retail electricity prices for regional Queensland** in 2017-18.

## South Australia

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

#### Electricity Generation Licence Conditions Inquiry – Interim AEMO Advice

On 14 March 2017 the ESCOSA announced it is conducting an **inquiry** into the additional technical licence conditions that it has applied to wind and other inverter-connected generation plant in South Australia since 2004.

#### Review of Rail Guidelines for Access Regimes 2017 – Submissions Received

On 7 March 2017 the ESCOSA announced it has received four public submissions following the initiation of this project to review the Tarcoola-Darwin rail access regime and the South Australian rail access regime. All relevant issues raised in the submissions will be considered by the Commission ahead of releasing its draft report in mid-2017. The ESCOSA had **announced it was reviewing** the Rail Guidelines on 15 December 2016.

#### Review of Regulatory Arrangements for the Retailer Feed-in Tariff from 2017 – Final Decision

On 20 December 2016 the ESCOSA **announced** that electricity retailers will have greater flexibility in the way that they purchase solar power from customers from the start of next year. While retailer feed-in tariffs (R-FiTs) will continue to be available, as mandated by law, a mandatory minimum rate will not be set.

#### 28 September 2016 State-wide Power System Outage

On 12 December 2016 the ESCOSA announced it was reviewing the performance of electricity entities, including generators and network businesses, prior to, during and after the system outage, in the context of the conditions contained in the licences they hold under the Electricity Act 1996.



## Tasmania

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

#### Tasmanian Water and Sewerage – State of the Industry Report 2015-16

On 29 March 2017, the OTTER published its State of the Industry Report for 2015-16 for the Tasmanian Water and Sewerage industry. [Access the Report here](#)

#### Comparison of Australian Standing Offer Energy Prices Report

In February 2017 the OTTER published its latest Comparison of Australian Standing Offer Energy Prices Report.

#### 2015-16 Energy in Tasmania Report

On 9 December 2016 the OTTER published its *2015-16 Energy in Tasmania Report*.

## Victoria

### Essential Services Commission (ESC)

#### Minimum Feed-in Tariff Set

On 28 February 2017 the ESC announced that the rate to be paid from 1 July 2017 to households and businesses who feed power back into the electricity grid from small renewable energy sources such as solar panels. The rate has been set at 11.3 cents per kilowatt hour. [See Media Release](#)

#### Comparison of Performance of Water Corporations – New Report

On 14 December 2016, the ESC released a new report comparing the performance (quality, reliability, etc.) of water corporations.

## Western Australia

### Economic Regulation Authority (ERA)

#### Wholesale Electricity Market Report

On 30 January 2016 the ERA published its Wholesale Electricity Market Report to the Minister for Energy for the period ended June 2016. The report is [available through this link](#).

## New Zealand

### New Zealand Commerce Commission (CCNZ)

#### Proposed Merger of Sky Network Television and Vodafone New Zealand – Clearance Declined

On 23 February 2017 the CCNZ announced that it has declined to grant clearance for the proposed merger of Sky Network Television and Vodafone New Zealand.

See 'Notes on Interesting Decisions'.

#### Default Price-Quality Paths for Gas Pipeline Services Released

On 10 February 2017 the CCNZ released its draft decisions on the default price-quality paths (DPP) for gas pipeline services. [Media Release here](#)

#### Review of Input Methodologies – Final Decisions

On 20 December 2016 the CCNZ released its final decisions on its review of input methodologies (IMs). These are the rules, requirements and processes that apply to the sectors the CCNZ regulates under Part 4 of the Commerce Act. [Media Release](#)

#### Fonterra's Milk Price Manual for 2016-17 – Final Report

On 14 December 2016 the CCNZ released its final report on its annual statutory review of Fonterra's Milk Price Manual for the 2016-17 dairy season.

## Notes on Interesting Decisions

### ACCC Final Access Determinations on Fixed-Line Services – Federal Court of Australia Dismisses Telstra’s Application for Judicial Review

On 28 March 2017, the Federal Court of Australia dismissed Telstra’s application for judicial review of the Australian Competition and Consumer Commission’s (ACCC’s) fixed-line services final access determinations (FADs) made on 9 October 2015.

The ACCC’s 2015 final access determinations required a one-off uniform decrease of 9.4 per cent in access prices from previous levels for the seven declared fixed-line access services. The prices were set to apply from 1 November 2015 until 30 June 2019.

The seven declared fixed-line services are: unconditioned local loop service (ULLS); line sharing service (LSS); fixed originating access service (FOAS); fixed terminating access service (FTAS); wholesale line rental (WLR); local carriage service (LCS); and wholesale ADSL.

The ACCC considered that users of Telstra’s network should not pay the higher costs that result from fewer customers as NBN migration occurs. If there were no adjustment for these higher costs the customers who have not yet been migrated to the NBN will ultimately pay significantly higher prices for copper-based services.

The ACCC took that approach because it considered that users of the fixed-line network have not caused the asset redundancy and under-utilisation caused by the NBN and will not be able to use those assets and capacity in the future. The ACCC considered that it would not be in the long-term interests of end-users for these costs to be allocated to users of the network who do not cause them, given that Telstra had an opportunity to be compensated for these costs.

Telstra had sought review of the ACCC’s application of its pricing methodology in making its determination. Telstra claimed that the ACCC’s pricing decision would lead to under-recovery of costs from its supply of declared fixed-line services.

The Court rejected all of Telstra’s grounds of review.

**See the ACCC’s Media Release [here](#)**

### Proposed Merger of Sky Network Television and Vodafone New Zealand – Clearance Declined by Commerce Commission of New Zealand (CCNZ)

On 23 February 2017, the Commerce Commission of New Zealand (CCNZ) announced that it has declined to grant clearance for the proposed merger of Sky Network Television and Vodafone New Zealand.

Vodafone Europe B.V. (Vodafone Group) sought clearance to acquire up to 51 per cent of the shares in Sky Network Television Limited (Sky). Sky also sought clearance to acquire up to 100 per cent of the assets and/or shares of Vodafone New Zealand Limited (together, the proposed merger). The merged Sky/Vodafone entity would have been controlled by the Vodafone Group.

The CCNZ’s assessment focused on the impact of the proposed merger on competition in both the broadband and mobile telecommunications markets. To grant clearance, the CCNZ would need to be satisfied that the proposed merger would not be likely to substantially lessen competition in any relevant market in New Zealand.

The CCNZ outlined its concerns with the proposed merger in a Letter of Unresolved Issues in October 2016 and subsequent submissions had not resolved these concerns. As a result, the CCNZ was not able to exclude the real chance that the merger would substantially lessen competition.

The CCNZ concluded that the proposed merger would have created a strong vertically integrated Pay-TV and full-service telecommunications provider in New Zealand owning all premium sports content. While it acknowledged that this could result in more attractive offers for Sky combined with broadband and/or mobile being available to consumers in the immediate future; it had to take into account the impact of a merger over time. Uncertainty as to how this dynamic market would evolve is a relevant consideration to its assessment.

The CCNZ observed that approximately one-half of households have Sky TV and a large number of those are Sky Sport customers. Internationally, the trend for bundles that package up broadband, mobile and sport content is growing. Given the merged entity’s ability to leverage its premium live-sports content, the CCNZ could not ‘rule out the real chance that demand for its offers would attract a large number of non-Vodafone customers’.

The CCNZ stated that, to clear the merger, it would need to have been satisfied that it was unlikely to substantially lessen competition in any relevant market. However, the evidence before it suggests

that the potential popularity of the merged entity's offers could result in competitors losing or failing to achieve scale to the point that they would reduce investment or innovation in broadband and mobile markets in the future. In particular, it had concerns that this could impact the competitiveness of key third providers in these markets such as 2degrees and Vocus.

The proposed merger was considered in the context of fibre being deployed, making it an 'opportune time for the merged entity to entice consumers to a new offer'. The CCNZ contended that, If significant switching occurred, the merged entity could, in time, have the ability to price less advantageously than without the merger or to reduce the quality of its service.

Given it was not satisfied that competition is unlikely to be substantially lessened by the proposed merger, the CCNZ had to decline clearance. The CCNZ also stated that, while under the Commerce Act it can accept structural divestments (shares or assets) to resolve competition concerns; it cannot accept behavioural undertakings such as written agreements from applicants stating they will make certain commercial decisions to address competition issues the CCNZ has raised.

## Regulatory News

### 2017 ACCC/AER Regulatory Conference

The 2017 ACCC/AER Regulatory Conference will be held in Brisbane at the Hilton Hotel on Thursday 27 and Friday 28 July 2017. Details about the conference and how to register are available on the ACCC's regulatory conference [webpage](#).

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