Interpretation of the Authority's statutory objective

14 February 2011

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
Code	Electricity Industry Participation Code
IR	Instantaneous reserves
SRC	Security and Reliability Council

Contents

1. Introduction

1.1.1 Section 15 of the Electricity Industry Act 2010 (Act) provides the Electricity Authority (Authority) with a single statutory objective:

> To promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.

1.1.2 This document sets out the Authority's interpretation of its statutory objective. The interpretation is consistent with the Act, and takes into account the role and functions of the Commerce Commission, the outcomes of the Ministerial review and other Government policy settings.

1.1.3 The Authority views the interpretation of its statutory objective as a key strategic statement, along with the Electricity Industry Participation Code (Code) amendment principles and the Authority's charter about advisory groups.

1.1.4 The Code amendment principles are intended to assist the Authority Board, staff, advisory groups, and stakeholders to identify proposals that further the Authority's statutory objective. However, this will be difficult to achieve if parties involved in developing the Code or market facilitation measures interpret the Authority's statutory objective differently.

1.1.5 Clarification of the interpretation of the Authority's statutory objective will assist the Authority Board to make consistent decisions, and will also assist staff and advisory groups to develop Code amendment and market facilitation proposals for the Authority Board's consideration.

2. Interpretation

2.1 Summary

2.1.1 The Authority interprets its statutory objective as requiring it to exercise its functions in section 16 of the Act in ways that, *for the long-term benefit of electricity consumers*:

- facilitate or encourage increased competition in the markets for electricity and electricity-related services, taking into account long-term opportunities and incentives for efficient entry, exit, investment and innovation in those markets;
- encourage industry participants to efficiently develop and operate the electricity system to manage security and reliability in ways that minimise total costs whilst being robust to adverse events; and
- increase the efficiency of the electricity industry,[1] taking into account the transaction costs of market arrangements and the administration and compliance costs of regulation, and taking into account Commerce Act implications for the non-competitive parts of the electricity industry, particularly in regard to preserving efficient incentives for investment and innovation.

2.2 Competition limb

2.2.1 In regard to competition the Authority notes that:

(a) consistent with the Commerce Act, the Authority interprets competition to mean workable or effective competition;

(b) facilitating or encouraging increased competition applies to both buyers and sellers in the markets for electricity and electricity-related services;

(c) the benefits of competition refer to efficiency benefits, not wealth transfers, arising from price movements, but it includes any efficiency effects that may arise from wealth transfers;

(d) efficient entry and exit in markets are not necessarily orderly; and

(e) workably competitive markets can bring very large benefits to consumers over the long term if they are conducive to entry by innovative suppliers and conducive to efficient investment.

[1] The Authority interprets 'electricity industry' to include all parties involved in the electricity industry and not just 'industry participants' as defined in the Act.

2.3 Reliable supply limb

2.3.1 In regard to reliable supply the Authority notes that:

(a) both continuity of supply and quality of supply are of interest to the Authority, subject to the jurisdiction of the Commerce Act;

(b) it is currently not always possible to closely tailor security and reliability to the preferences of individual electricity consumers due to the shared nature of the electricity system, although the option should be preserved, where possible, for consumers to invest to achieve their individual preferences;

(c) although it is usually not possible to estimate the aggregate marginal benefit of security and reliability with a high degree of precision, broad estimates are available to set key parameters for security and reliability that are approximately efficient; and

(d) consumer concerns about security and reliability may not be constant over time, with concerns growing when events become proximate and receding when events pass.

2.4 Efficient operation limb

2.4.1 The Authority also notes that:

(a) efficient operation of the electricity industry covers situations not adequately covered by the competition and reliable supply aspects of the Authority’s statutory objective;

(b) efficient operation of the electricity industry is interpreted within the context of other Government legislation and regulation affecting the electricity industry, and in particular does not allow consideration of pan-industry externalities such as carbon emissions; and

(c) in situations where it is considering initiatives that have conflicting effects within its statutory objective, the Authority will seek to make decisions consistent with maximising overall efficiency benefits for the long-term benefit of electricity consumers.

2.4.2 The three limbs are considered in more detail in Appendix A.

Appendix A: Further elaboration of the meaning of the statutory objective

Overarching purpose: the long-term benefit of consumers

A.1 Each of the three limbs of the Authority's statutory objective are directed towards achieving outcomes **for the long-term benefit of electricity consumers**.

Consumers

A.2 The Authority notes that, although its statutory objective in section 15 of the Act refers simply to consumers, the Act defines consumers to mean "any person who is supplied, or applies to be supplied, with electricity other than for resupply."

A.3 It is important to appreciate that the Act's definition of consumers therefore includes commercial and industrial firms, not just residential consumers. As a result, the Authority's decisions may transfer wealth from one firm to another, not just from firms to residential consumers or vice versa.

A.4 The Authority interprets the Act's definition of consumers to also include both current and future electricity consumers. Moreover, the Authority understands that virtually all individuals and organisations in New Zealand are electricity consumers, except of course electricity generators and retailers, Transpower and lines businesses, as they resupply the electricity they receive to other individuals and organisations in New Zealand. The Authority uses the term *aggregrate consumers* to refer to all individuals and organisations in New Zealand except electricity generators and retailers, Transpower and lines businesses.

Benefits to consumers

A.5 In regard to assessing benefits to electricity consumers, the Authority believes it should take into account indirect effects on all electricity consumers rather than just the direct (and most obvious) effects on them. This approach means the Authority considers the net effects on electricity consumers and assesses the benefits to them in aggregate (the *aggregate consumer approach)*.

A.6 The implication of this approach is that, in virtually all circumstances, only the efficiency gains of an initiative should be treated as benefiting consumers, with wealth transfers excluded because they 'net off' among all electricity consumers once indirect wealth effects are taken into account.

A.7 The aggregate consumer approach means the Authority's decisions will be consistent with expanding the 'size of the economic pie', whereas if direct wealth transfers are included (but indirect wealth effects excluded) then regulatory initiatives can be adopted even when they 'shrink the pie'. If applied consistently, the 'shrinking pie' approach has a long term deleterious effect on electricity consumers and the Authority does not believe that was the purpose or intent of the Act.

A.8 The Authority is aware of the legal position established in Powerco v. Commerce Commission, heard in the High Court in 2006 and upheld by the Court of Appeal in 2008. That case ruled in favour of including wealth transfers in the Commerce Commission's cost-benefit analysis in respect of imposing price control on the gas networks of Powerco and Vector. However, the Powerco judgments are specific to the then Part 4 of the Commerce Act[2] and, in particular, are specific to decisions about whether price control should be imposed on firms operating in non-competitive markets.

A.9 As the Powerco judgments are based on the specific legislative scheme and purpose of the then Part 4 of the Commerce Act, they do not apply to other Acts of Parliament for which the purpose is other than determining whether price control should be imposed. This interpretation is consistent with the fact that the Powerco judgment does not apply to Parts 2 and 3 of the Commerce Act.

A.10 The Authority therefore intends adopting standard cost-benefit analysis when assessing net benefits to electricity consumers.

Long-term benefits to consumers

A.11 In regard to *long-term benefit*, the Authority considers that its primary focus is to promote dynamic efficiency in the electricity industry, which includes:

(a) taking into account long-term opportunities and incentives for efficient entry, exit, investment and innovation in the electricity industry, by both suppliers and consumers; and

(b) taking into account the durability of the industry and regulatory arrangements in the face of high impact, low probability events.

A.12 These considerations are discussed below in the context of each limb of the Authority's statutory objective.

Limb 1: promoting competition

A.13 The first limb of the Authority's statutory objective is *to promote competition in the electricity industry for the long-term benefit of consumers.*

A.14 The Authority's interpretation of this limb is developed below by considering the following questions:

(a) what does *competition* mean and what is meant by *competition in the electricity industry*?

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2 Part 4 of the Commerce Act has subsequently been amended to, *inter alia*, introduce price control on certain network businesses.

(b) in what way does competition benefit consumers and what is meant by *competition in the electricity industry for the long-term benefit of consumers*? and

(c) finally, what is meant by *promote* competition in the electricity industry for the long-term benefit of consumers?

What is competition?

A.15 The Authority interprets *competition* to mean *workable or effective competition*, as discussed by the Commerce Commission in its recent publications on input methodologies.[3] Under workable competition, for example, sellers compete on price, quality, location and/or service, or by differentiating their goods or services from their rivals, or through their sales and marketing effort, or via a combination of those activities.

A.16 The *strength of competition* in any market is indicated by the extent to which a party can profitably sustain a change in its product or service offering that is unfavourable to the market. For example, all other things being equal, a market in which a seller can profitably sustain only a five percent increase in its price is more competitive than a market where it can profitably increase its price by ten percent.[4] The *competitive pressure* on prices to remain at competitive levels,[5] or to revert to competitive levels if they deviate from them, is stronger in the first case than in the latter case.[6]

A.17 Similarly, all other things being equal, a market in which a seller has to spend, for example, five percent of its revenues on ongoing differentiation of its product to maximise profits is more competitive than a market where it only needs to spend one percent.[7] The *competitive pressure* on sellers to innovate and offer choice to consumers is stronger in the first case than in the second.

A.18 The Authority uses the term *competitive pressure* because it covers a broad range of competitive circumstances, including circumstances where industry participants behave competitively because they anticipate competitor responses

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3 See paragraphs 2.30 – 2.37 in *Input Methodologies Discussion Paper,* Commerce Commission, June 2009.

4 In economics jargon, the net demand curve facing the firm in the five percent case is more elastic than in the ten percent case, where net demand is total market demand net of sales of the firm's rivals.

5 In a perfectly competitive market the competitive level of prices equals the marginal cost of producing the good or service sold (see the discussion in paragraphs A.22 and A.23 for what is meant by 'competitive levels').

6 It can be said the downward pressure on prices is stronger in the five percent case than in the ten percent case. This concept of *downward pressure on prices* is sometimes mistakenly interpreted to mean the degree to which prices move in a downward direction, whereas it actually means the pressure on prices to revert to competitive levels when they have deviated from competitive levels. Hence, this paper uses the phrase *competitive pressure on prices*.

7 Note the qualifier *all other things being equal* is key, as it means the statement compares two hypothetical market situations that are the same other than in regard to the issue under discussion. In reality such comparisons are not readily available.

(or the entry of new competitors) if they do not do so. In these cases, a lack of rivalrous activity is not necessarily an indication of weak competition.

A.19 The Authority interprets *competition in the electricity industry* to mean workable competition in regard to buying and selling electricity and where possible in electricity-related services, such as ancillary services, and transmission and distribution services.

In what way does competition benefit consumers?

A.20 At an individual consumer level, workable competition delivers benefits by keeping prices lower than they otherwise would be, and the lower the prices are the greater the benefit to an individual consumer.

A.21 However, determining the benefits of workable competition for an individual consumer is more complicated when the consumer is involved in the electricity industry in some way. For example, some electricity consumers supply interruptible load to the instantaneous reserves (IR) market. Greater competition in the electricity market may bring lower prices in both the electricity and IR markets, and therefore the net benefits for the consumer are lower than if the impact on their electricity costs was the only factor taken into account.[8] These complications can be avoided by taking an aggregate consumer approach.

A.22 From an aggregate consumer perspective, workable competition delivers benefits to consumers by placing pressure on firms to set their prices close to their marginal cost of supply. Prices above this marginal cost of supply cause consumers to forgo goods and services that they value more highly than it costs to supply them. That is an allocatively inefficient outcome, as consumer surplus is forgone.[9] Similarly, prices below the marginal cost of supply cause consumers to acquire goods and services that they value less than it cost to supply them. That is also allocatively inefficient, because the resources used to supply those goods could have been used to supply other goods that consumers value more highly. Hence, the stronger the competitive pressure in a market, the greater the allocative efficiency of the market.

A.23 Workable competition also delivers productive and dynamic efficiencies, which also have aggregate consumer benefits:

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[8] By extension, similar complications arise for electricity consumers supplying labour or intermediate goods to electricity suppliers, or have an ownership interest in the firms supplying intermediate goods or in electricity suppliers themselves. Further complications arise when electricity suppliers are state-owned, as electricity consumers are then affected by how changes in electricity supplier dividends affect their current and future tax burdens.

[9] Consumer surplus is an economic measure of consumer satisfaction. It is calculated by analysing the difference between what consumers are willing to pay for a good or service relative to its market price. A consumer surplus occurs when the consumer is willing to pay more for a given product than the current market price.

(a) productive efficiency benefits occur when competition disciplines firms to minimise costs for the level of output they produce, or to obtain maximum output from the inputs used in production. Competition also delivers productive efficiency benefits by minimising consumer search effort and economises on the information they need to make purchase decisions; and

(b) dynamic efficiency benefits occur when competition encourages efficient investment in capital goods and innovation, and when it provides consumers with confidence that price movements reflect underlying demand and supply movements.

A.24 Consistent with the above discussion, the Authority adopts the aggregate consumer interpretation of the benefits of competition. In particular, the Authority interprets *competition for the benefit of consumers* to mean the <u>efficiency benefits</u> of competition. This interpretation excludes wealth transfers from the calculation of benefits to consumers, but it includes any efficiency effects that may arise from wealth transfers.

A.25 The Authority notes that excluding wealth transfers mirrors the approach the Commerce Commission uses in regard to Parts 2 and 3 of the Commerce Act 1986, which are also to do with promoting competition for the long-term benefit of consumers.

What is competition for the long-term benefit of consumers?

A.26 In reality competition is not necessarily orderly or constant over time. There can be periods when competition declines as competitors exit markets as they discover they are unable to operate profitably, and this can happen in a disorderly manner. There can also be situations when competition appears weak because firms can charge prices above competitive levels until new suppliers enter the market or consumers find ways to reduce demand, either temporarily or permanently. The competitive process is characterised by innovative firms entering the market and eventually driving out incumbents if they are unable to respond quickly enough to meet their customers' preferences.

A.27 The Authority therefore interprets the phrase *competition for the <u>long-term</u> benefit of consumers* to mean it should consider the incentives for buyers and sellers to enter and exit the market, barriers to entry and exit, and more generally the contestability of the various markets in the electricity industry.[10] This includes considering the long term value gains for consumers when market arrangements are conducive to entry by innovative suppliers and conducive to efficient investment.

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10 Contestability refers to situations where incumbent suppliers face a credible threat of new suppliers entering the market in competition with them. A contestable market can have very few suppliers, and suppliers may set prices, but they set those prices as if they were in a competitive market because they know that if they don't new suppliers will enter the market.

What is promoting competition?

A.28 The Authority interprets *promoting competition* to mean exercising its functions to facilitate or encourage stronger competition. The Authority is not focussed on the conduct of individual participants with respect to competition in the electricity industry as this is the responsibility of the Commerce Commission. Rather the Authority is focussed on improving the arrangements in the electricity industry to promote competition.

A.29 *Promoting competition* does not mean achieving a certain level of competition. Even in markets where the Authority considers competition is already strong, the Authority interprets its statutory objective as requiring it to adopt proposals that would further strengthen competition if such proposals have positive net long-term benefits for consumers.

Conclusions regarding competition

A.30 In summary, the Authority interprets the phrase *promoting competition in the electricity industry for the long-term benefit of consumers* to mean:

> Exercising its functions in ways that facilitate or encourage increased competition in the markets for electricity and electricity-related services, taking into account long-term opportunities and incentives for efficient entry, exit, investment and innovation in those markets.

A.31 The Authority notes that:

(a) facilitating or encouraging increased competition may occur on non-price dimensions, such as in regard to the quality and reliability of supply, product or service differentiation, the sales and marketing efforts of sellers, and the search and switching decisions of buyers;

(b) the benefits of competition refer to efficiency benefits, not wealth transfers, arising from price movements, however if wealth transfers seriously undermine confidence in the pricing process or in the electricity industry more generally then that can inhibit efficient entry and investment decisions and these dynamic efficiency effects should be taken into account when evaluating proposals;

(c) efficient entry and exit in markets are not necessarily orderly, however if disorderly situations undermine confidence in an electricity market or other markets, or in the electricity industry or New Zealand industry more generally, then that can inhibit efficient entry and investment decisions and these dynamic efficiency effects should be taken into account when evaluating proposals; and

(d) workably competitive markets can bring very large benefits to consumers over the long term if they are conducive to entry by innovative suppliers and conducive to efficient investment.

Limb 2: promoting reliable supply

A.32 The second limb of the Authority's statutory objective is *to promote reliable supply by the electricity industry for the long-term benefit of consumers.*

A.33 As for the competition limb, the Authority's interpretation of this limb is developed by considering each of its components.

What is reliable supply?

A.34 The Authority interprets *reliable supply* to mean both reliability and security, in regard to both continuity of supply and quality of supply.[11] The Authority notes that both security and reliability were intended by Parliament as the Act requires the Authority to establish a Security and Reliability Council (SRC) to advise the Authority on these matters. The Authority also appreciates that perceptions of security and reliability are also important.

A.35 The Authority interprets *reliable supply by the electricity industry* to mean the security and reliability of supply arising from the actions of all parties in the electricity industry, including generators, transmission and distribution networks, retailers and electricity consumers.

In what way does reliable supply benefit consumers?

A.36 Supply interruptions (including non-price rationing) and degradation in the quality of supply can impose very large costs on consumers and suppliers, particularly when they are sudden and unpredicted. Uncertainty about future power supply can also be very costly if it undermines investment incentives and consumer confidence in the electricity industry (even when actual interruptions do not eventuate).

A.37 The benefits of reliable supply are the avoided costs of supply interruptions and quality degradation, and the avoided costs of under-investment by electricity users arising from investor uncertainty (*avoided costs*). Conversely, the costs of reliable supply are the costs of obtaining, operating and maintaining transmission, distribution and generation resources, and additional demand response capability, to cover short- and long-term risks in the power system (*resource costs*).

A.38 Reliable supply is efficient when the marginal benefit of increased security and reliability equals the marginal cost of achieving it.[12] The Authority therefore

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[11] In regard to the continuity of supply, reliability refers to the rate and duration of outages and security refers to the resilience of the system to adverse events (i.e., where outages are avoided despite significant adverse events occurring). Reliable supply also encompasses the quality of supply (e.g., frequency and voltage).

[12] If the marginal benefits exceed marginal costs then consumers are forgoing security and reliability when they value them more highly than it cost society to supply them. That is an inefficient outcome, as consumer surplus is forgone. Similarly, if marginal benefits are lower than marginal cost, resources are being used to increase security and reliability when those resources could have been used to supply other goods that consumers value more highly than reliability of electricity supply. This would also be an inefficient outcome.

interprets *reliable supply for the long-term benefit of consumers* to mean the efficient level of reliability, which occurs when the total of these costs is minimised.[13]

A.39 As for limb 1, this approach is an aggregate consumer interpretation of the benefits to consumers, which excludes wealth transfers to consumers. If direct wealth transfers were taken into account (but not indirect wealth transfers), then price reductions would be valued ahead of reliable supply, which the Authority does not believe was intended by the Act. Adopting an efficiency (i.e. aggregate consumer) approach achieves an even-handed treatment of resource costs versus avoided costs.

A.40 It is currently not always possible to tailor security and reliability to the preferences of individual electricity consumers due to the shared nature of the electricity system. This means security and reliability arrangements are often designed to meet aggregate efficiency criteria, which may leave some consumers dissatisfied, although the option should be preserved where possible for consumers to invest to achieve their individual preferences.

A.41 Aggregate efficiency criteria use estimates of the average marginal benefit of security and reliability, but it is currently not possible to obtain accurate estimates. Levels of security and reliability can therefore only be approximately efficient.

What is reliable supply for the long-term benefit of consumers?

A.42 Considering the *<u>long-term</u> benefit of consumers* means the Authority needs to take into account any dynamic efficiency effects that may arise if security and reliability issues undermine consumer and investor confidence in efficient processes for coordinating the electricity industry.

A.43 For example, security and reliability arrangements need to be durable in the face of high impact, low probability events, or the impending prospect of those events occurring (hereafter, *adverse events*). Adverse events can reduce efficiency by creating uncertainty for investors as a result of reactive changes to regulatory settings.

A.44 In principle, voluntary insurance-type arrangements should be relied on for coping with the impact of those events. But if participation in voluntary arrangements is inadequate, such that costly[14] interventions occur in the lead up to, during or after adverse events, the long-term benefit of consumers may be served by adopting *second-best arrangements* after transparently taking into account the benefits from regulatory certainty and potentially the high cost of ad-hoc interventions.

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[13] Total costs are the sum of avoided and resource costs.

[14] In the sense that they reduce the efficiency of the electricity industry.

A.45 In the short-term, second-best arrangements are not as efficient as first-best arrangements, but they are more efficient over the long-term if first-best arrangements for electricity are unattainable due to the realities within which the electricity industry operates.

A.46 The Authority therefore interprets the phrase *reliable supply for the long-term benefit of consumers* to mean efficient levels of reliable supply, where efficiency includes dynamic efficiency gains from adopting time-consistent arrangements – that is, arrangements that are robust to adverse events over the long term. In regard to minimising total costs, the Authority believes the potential costs of regulatory uncertainty and ad-hoc interventions should be taken into account in determining minimum total costs.

What is promoting reliable supply?

A.47 The Authority interprets *promoting reliable supply* to mean exercising its functions to encourage efficient reliable supply. *Promoting reliable supply* does not mean achieving a prescribed level of reliable supply.

Conclusions regarding reliable supply

A.48 In summary, the Authority interprets the phrase *promoting reliable supply by the electricity industry for the long-term benefit of consumers* to mean:

> Exercising its functions in ways that encourage industry participants to efficiently develop and operate the electricity system to manage security and reliability in ways that minimise total costs whilst being robust to adverse events.

A.49 The Authority notes that:

(a) it is currently not always possible to closely tailor security and reliability to the preferences of individual electricity consumers due to the shared nature of the electricity system, although the option should be preserved, where possible, for consumers to invest to achieve their individual preferences;

(b) although it is usually not possible to estimate the aggregate marginal benefit of security and reliability with a high degree of precision, broad estimates are available to set key parameters for security and reliability that are approximately efficient; and

(c) consumer concerns about security and reliability may not be constant over time, with concerns growing when events become proximate and receding when events pass.

Limb 3: promoting efficient operation

A.50 The third limb of the Authority’s statutory objective is *to promote the efficient operation of the electricity industry for the long-term benefit of consumers.*

What does efficient operation of the electricity industry mean?

A.51 The Authority interprets *efficient operation of the electricity industry* to cover operational matters in regard to all aspects of the electricity industry. As competition and reliable supply considerations affect the operation of the electricity industry, the Authority interprets *efficient operation of the electricity industry* to cover matters not adequately covered by the competition and reliable supply aspects of the Authority's statutory objective.

A.52 For example, competition is a means to promoting efficient operation of the electricity industry over time, but not all components of the electricity supply chain can currently be provided through workably competitive markets. For example, electricity transmission and distribution services require more than a pro-competition focus to achieve acceptable levels of operational efficiency.

A.53 Moreover, even where workably competitive markets operate, there can be circumstances where pro-competition initiatives reduce efficiency, such as when they lead to inefficient duplication of resources and/or activity. Therefore, it is important to take into account the transaction costs to parties of participating in the market, and the administration and compliance costs of regulation.

A.54 Overall then, the Authority interprets limb 3 as providing an over-riding efficiency criterion for the Authority's decisions in respect of any aspect of the electricity industry within the Authority's functions in section 16 of the Act.

In what way does efficient operation benefit consumers?

A.55 At an individual consumer level, efficient operation of the electricity industry benefits consumers when it reduces the prices and levies they pay for electricity and electricity-related services.

A.56 As discussed above, the Authority will adopt an aggregate consumer perspective when looking at benefits to consumers. In virtually all circumstances, this means only the efficiency gains of an initiative should be treated as benefits to consumers, and wealth transfers will be excluded.

A.57 Also when looking at benefits to consumers, the Authority needs to understand the implications of its decisions for the non-competitive parts of the electricity industry, particularly in regard to preserving efficient incentives for investment and innovation (noting the Authority has no role in regard to Commerce Act matters).

A.58 The Authority is mindful of the potential for confusion between its role and that of the Commerce Commission in regard to the non-competitive parts of the electricity industry. A Memorandum of Understanding between the Authority and the Commerce Commission is published on the Authority's website,[15] which

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15 Memorandum of Understanding between the Electricity Authority and the Commerce Commission.

explains how the Authority and the Commerce Commission intend to coordinate their respective roles under the Act and the Commerce Act.

What is efficient operation for the long-term benefit of consumers?

A.59 As noted above, when considering the *long-term benefit of consumers* the Authority needs to consider the efficient operation of the electricity industry over the long-term. The Authority interprets this to mean it must take into account incentives for efficient investment and innovation in the electricity industry, by both suppliers and consumers.

A.60 It is important to note that the Authority does not consider the promotion of efficiency for the long-term benefit of consumers to cover all matters that may deliver long-term benefits to consumers. In particular, the Authority believes that policies to address externalities arising generally from industry and consumer activity that is broader than electricity industry-related activity do not fall within the scope of the Authority's functions.

A.61 For example, carbon emissions arise from many sources of human activity, not just electricity-related activity, and are being addressed by the Government's environmental policies, including its emissions trading scheme. Similarly, many forms of commercial activity affect public resources, which the Government seeks to address through the Resource Management Act 1991. Externalities also occur across many industries in regard to staff training, which the Government seeks to address through the Industry Training Act 1992.

A.62 Consistent with the narrower focus Parliament adopted for the Authority (relative to the Electricity Commission), the Authority interprets its interest in externalities as limited to externalities specific to the electricity industry. For example, the imposition of additional system costs, or degradation of power quality, due to continued investment in intermittent generation would be matters within the scope of the Authority.

A.63 There are of course Government policies and initiatives directed at electricity-specific matters, such as those contained in the Act, the amended Electricity Act 1992, and the regulations made under the Act.[16] The Authority interprets its mandate is to act *within those policy settings* to improve the efficiency of the electricity industry. The Authority considers that it has no authority to adopt counteracting measures to such policies and initiatives, even if such measures would promote the outcomes sought under the Authority's statutory objective.

A.64 As with the other limbs, the long-term focus also means the Authority needs to take into account efficiency effects that may arise from measures that create large wealth transfers or that are potentially time-inconsistent.

[16] For example, the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

What is promoting efficient operation?

A.65 The Authority interprets *promoting efficient operation* to mean exercising its functions in ways that enhance the efficiency of the industry.

Conclusions regarding efficient operation

A.66 In summary, the Authority interprets the phrase *promoting efficient operation of the electricity industry for the long-term benefit of consumers* to mean:

> Exercising its functions in ways that increase the efficiency of the electricity industry, taking into account the transaction costs of market arrangements and the administration and compliance costs of regulation, and taking into account Commerce Act implications for the non-competitive parts of the electricity industry, particularly in regard to preserving efficient incentives for investment and innovation.

A.67 The Authority notes that:

(a) efficient operation of the electricity industry covers situations not adequately covered by the competition and reliable supply aspects of the Authority's statutory objective;

(b) efficient operation of the electricity industry is interpreted within the context of other Government policies affecting the electricity industry, and in particular does not allow consideration of pan-industry externality policies such as carbon emissions; and

(c) in situations where it is considering initiatives that have conflicting effects within its statutory objective, the Authority will seek to make decisions consistent with maximising overall efficiency benefits for the long-term benefit of electricity consumers.