QUEENSLAND COMPETITION AUTHORITY

Criteria for the Identification of Government Monopoly Business Activities

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PREAMBLE

In order to assist the Premier and the Treasurer (the Ministers) to decide whether or not to declare a government business activity to be a monopoly government business activity, under the *Queensland Competition Authority Act 1997* (the QCA Act), the Authority is required to develop, and may revise, criteria for the Ministers to use in making the necessary decision.

The Criteria, originally issued in 1997, have been updated to reflect presentational changes introduced following the release of *Criteria for the Identification of Non-Government Monopoly Business Activities* in November 2008. The definition of a government business activity, to which the Criteria apply, encompasses both State and local government entities. References to local government entities have also been made explicit to reflect changes introduced to the QCA Act since the Criteria were initially developed. Nevertheless, the substance of the Criteria remains unchanged.

The absence of vigorous rivalry and the existence of barriers to entry constitute the primary test for a monopoly business activity. Where the primary test is inconclusive, for example through a lack of relevant information, the second test relating to the evidence of the exercise of substantial market power is applied.

It is important to note that declaration as a monopoly business activity does not automatically subject the monopoly business activity to a prices oversight investigation by the Authority. This requires a separate decision by the Ministers. In this regard, the Ministers may refer the monopoly business activity to the Authority for an investigation into its pricing practices or for ongoing monitoring of its pricing practices.

CRITERIA FOR DECIDING WHETHER TO DECLARE A GOVERNMENT BUSINESS ACTIVITY TO BE A MONOPOLY BUSINESS ACTIVITY

A government business activity should be declared a monopoly business activity wherever competitive pressures do not effectively constrain its provider's commercial behaviour.

The criteria to be addressed in determining this are:

(a) [**business activity**] The activity involves a trading in goods or services;

(b) [**government business activity**] The business activity is:

- carried on by a State government agency; or
- a significant business activity carried on by a local government entity; and

(c) [**commercial behaviour not constrained by competitive pressures**]

- There is an absence of vigorous rivalry in the market in which the activity occurs **and** barriers to entry into that market exist.

OR

- If the evidence regarding rivalry and barriers to entry is inconclusive, there is evidence that the provider of the activity is exercising substantial market power. This may include that it is earning an excessive return, would be earning an excessive return were it not operating inefficiently, or is cross subsidising.

The attached paper elaborates on the criteria.

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EXECUTIVE SUMMARY

The *Queensland Competition Authority Act 1997* (the QCA Act) requires the Queensland Competition Authority (the Authority) to develop criteria to assist the Premier and the Treasurer (the Ministers) in deciding whether to declare a government business activity to be a government monopoly business activity.

The Criteria, originally issued in 1997, have been updated to reflect presentational changes introduced following the release of *Criteria for the Identification of Non-Government Monopoly Business Activities* in November 2008. The definition of a government business activity, to which the Criteria apply, encompasses both State and local government entities. References to local government entities have also been made explicit to reflect changes introduced to the QCA Act since the Criteria were initially developed. Nevertheless, the substance of the Criteria remains unchanged.

The test for identifying government monopoly business activities is based upon an assessment of whether these business activities have sufficient market power such that they are capable of persistently behaving in a manner different to that which would occur in a competitive market. In competitive markets, sellers increase their prices or reduce the quality of their products or services at their peril, as consumers are able to find alternatives relatively easily.

Where an incumbent possesses substantial market power, the rigours normally provided by competition to protect customers and to innovate are substantially weakened. This is likely to occur where:

(a) a business activity enjoys a substantial influence in a market;

(b) a business activity can act to an appreciable degree independently of its competitors[1]; or

(c) a business activity's competitors are unable or unwilling to effectively compete with it.

Figure 1 gives a simplified description of the framework within which the Authority recommends government monopoly business activities be identified. Basically, a three-step process is envisaged:

step 1 – determines whether the activity is a government business activity;

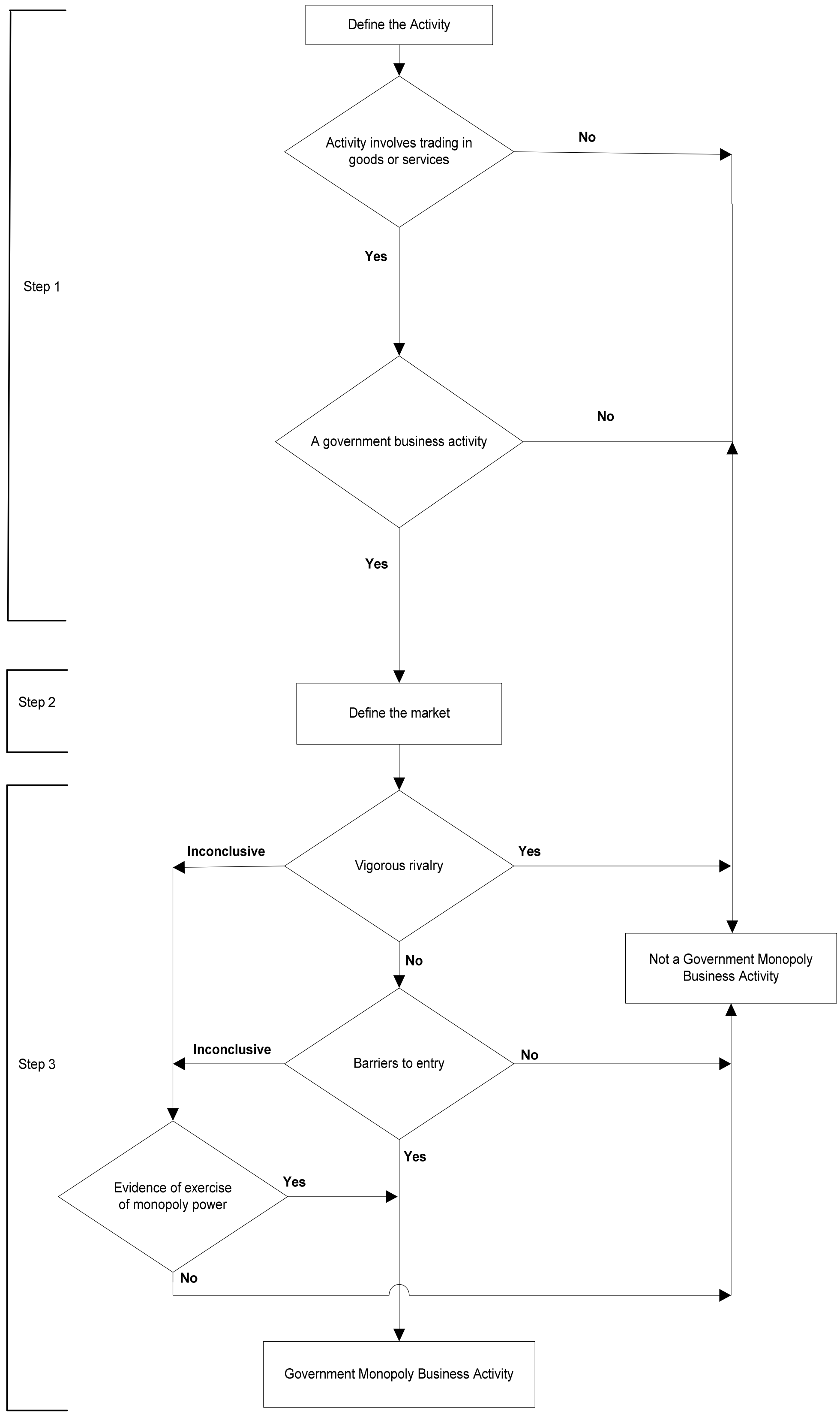
step 2 – defines the markets in which the government business activity operates; and

step 3 – assesses the intensity of competition in those markets relevant to the enquiry.

Declaration as a monopoly business activity does not automatically subject the monopoly business activity to a prices oversight investigation by the Authority. This requires a separate decision by the Ministers. In this regard, the Ministers may refer the monopoly business activity to the Authority for an investigation into its pricing practices or for ongoing monitoring of its pricing practices.

1 The term "competitor" refers to actual or potential competitors.

Figure 1: Simplified Framework for Identifying Government Monopoly Business Activities



Step 1 – Determining Whether the Activity is a Government Business Activity?

The first step in the process is to properly define the activity that is to be the subject of the analysis with a view to determining whether it is a government business activity. There are two requirements under the QCA Act to be addressed in this context. The first requirement is that the activity involves a trading in goods or services. The second is that the business activity must be provided by a government agency of the State or a local government. If provided by a local government entity, only significant business activities (as defined under the *Local Government Act 1993*) are covered by the definition.

In practical terms, a government business activity is:

> *An activity undertaken by a government agency that involves trading in goods and services.*

It should be noted that:

(a) ‘government agency’ means a government company or part of a government company; or a State instrumentality, agency, authority or entity, or a division, branch or other part of a State instrumentality, agency, authority or entity; or a department or a division, branch or other part of a department; or a government owned corporation; or a local government entity. A local government entity means a local government or part of a local government, or a local government owned corporation;

(b) ‘trading’ requires goods or services to be provided to another legal entity; and

(c) ‘trading in’ requires actual trading as opposed to the mere potential for trading. Therefore, a refusal to supply goods or services to any other legal entity will not constitute a business activity for the purposes of Part 3. [Depending on the circumstances, a refusal to supply services may be able to be addressed under Part 5 or Part 5A of the QCA Act].

A government agency may undertake several distinct business activities. Consequently, precisely defining the product or service that is the subject of the analysis is essential to correctly identify the business activity and to define the relevant market, which is the next step in the process.

Step 2 – Market Definition

A market is an area of close competition or rivalry. If there is no close competition this can, of course, indicate a monopolistic market. Defining a market involves drawing a line in the chain of substitutes for a product or service that potentially compete with it. In defining and analysing a market, it is important to consider the purpose of the investigation, which, in the case of identifying government monopoly business activities, is to assess the extent of competitive pressure.

The analysis will need to address the product market (alternative products or services that can be used instead of those provided by the government business activity), the geographic market (the geographical region from which alternative sources of supply may be found), the relevant functional level of the market under consideration and the period of time allowed for an effective competitor to enter the market.

Once the relevant market has been defined, the intensity of the competitive pressures can be assessed and other relevant factors, such as the extent of barriers to entry, can be considered.

Step 3 – Assessing the Level of Competition in the Market

The principal factors which assist in determining if a government business activity is not effectively constrained by competitive pressures in a market are:

(a) the absence of vigorous competition in the market together with barriers to entry for new entrants into the industry (or to the expansion of existing rivals); and

(b) evidence of the exercise of substantial market power by the government business activity (e.g. by way of excessive pricing, inefficient operations or cross-subsidisation).

An absence of vigorous rivalry and the existence of barriers to entry constitute the primary test. If there is an absence of vigorous rivalry and barriers to entry exist then the activity is a monopoly business activity. If there is evidence of vigorous rivalry or if no barriers to entry exist, then the activity is not a monopoly business activity.

Where the primary test is inconclusive or there is insufficient information for it to be applied, the second test relating to evidence of the exercise of substantial market power is applied.

1. INTRODUCTION

1.1 Need for Criteria

The *Queensland Competition Authority Act 1997* (the QCA Act) requires the Queensland Competition Authority (the Authority) to develop criteria to assist the Premier and the Treasurer (the Ministers) in deciding whether to declare a government business activity to be a government monopoly business activity.

The current *Criteria for the Identification of Government Monopoly Business Activities* (page ii) and supporting information are provided for this purpose.

The Criteria, originally issued in 1997, have been updated to reflect presentational changes introduced following the release of *Criteria for the Identification of Non-Government Monopoly Business Activities* in November 2008. The definition of a government business activity, to which the Criteria apply, encompasses both state and local government entities. References to local government entities have also been made explicit to reflect changes introduced to the QCA Act, since the Criteria were initially developed. Nevertheless, the substance of the Criteria remains unchanged.

The absence of vigorous rivalry and the existence of barriers to entry constitute the primary test for a monopoly business activity. Where the primary test is inconclusive, for example through a lack of relevant information, the second test relating to the evidence of the exercise of substantial market power is applied.

1.2 Implications of Declaration as a Monopoly Business Activity

Declaration as a monopoly business activity does not automatically trigger a prices oversight investigation by the Authority. This requires a separate decision by the Ministers.

In this regard, the Ministers may refer the monopoly business activity to the Authority for an investigation into its pricing practices or for ongoing monitoring of its pricing practices.

2. MARKET POWER

The explanatory note to the QCA Act in 1997 made it clear that the use of the term "monopoly" was not intended to limit prices oversight to a situation where there is only a single supplier in a particular market. It was intended to extend to "near monopolies" where an entity conducting a business activity has substantial market power.

Market power arises where an incumbent is capable of persistently behaving in a manner different to that which would occur in a competitive market, including markets where potential competition is an effective fetter. In competitive markets, sellers increase their prices or reduce the quality of their products at their peril, as consumers are able to find alternatives relatively easily. Where an incumbent possesses substantial market power, the rigours provided by competition to:

(a) price and produce efficiently;

(b) satisfy customers with quality relative to price; and

(c) innovate,

are substantially weakened.

2.1 Sources of Market Power

A government business activity's market power may arise from its superior performance or innovation, or from other factors, such as:

(a) a legislated monopoly, where legislation precludes a competitive activity in relation to the supply of a product or service;

(b) a natural monopoly, where the least costly means of meeting demand is through production by a single entity; and

(c) poorly contestable markets, where competition does not operate effectively in markets despite the absence of legal restrictions.

In general, it is desirable to address concerns over market power by regulatory and structural reform to enhance competition. Regulatory reform involves removing regulatory restrictions on competition. Structural reform entails separating natural monopoly and potentially contestable elements of a business and may be accompanied by other reforms, such as creating rights of third party access to natural monopolies to encourage the evolution of competitive markets where feasible.

The pursuit of regulatory and structural reform is generally preferred because forcing market participants to respond to the incentives provided by competitive pressures rather than the incentives created by regulatory arrangements (such as prices oversight) promotes superior outcomes for the economy as it avoids resource allocation being determined by the subjective judgements of regulators.

However, even where regulatory or structural reform is undertaken, entrenched market positions enjoyed by incumbents often provide them with substantial advantages relative to new entrants. These "first mover" advantages may mean that a government monopoly business activity retains much of its market power despite regulatory or structural reform, at least for a prolonged period. Consequently, the introduction of regulatory or structural reform of itself may not cause a government business activity to cease to be properly categorised as a government monopoly business activity.

2.2 Market Power Threshold for Government Monopoly Business Activities

The extent of an entity's market power is a question of degree and reflects the extent to which competitors constrain its conduct. The question arises as to the appropriate market power threshold for a government business activity's market power to characterise it as a government monopoly business activity.

If it is to be classified as a government monopoly business activity, a government business activity's commercial behaviour should not be effectively constrained by competitive pressures (exerted by either actual or potential competitors). This is likely to occur where:

(a) a business activity enjoys a substantial influence in a market;

(b) a business activity can act to an appreciable degree independently of its competitors; or

(c) a business activity's competitors are unable or unwilling to effectively compete with it.

A business activity may be taken to have a substantial influence on a market if its commercial behaviour is not subject to the disciplines competitive markets normally impose. It may also be able to use that influence to its advantage in shaping the market as it evolves over time, especially if it controls access to an essential input (e.g. as Queensland Rail controls access to its rail network).[2] However, absolute control of the market is not necessary for a substantial influence to be established.

A government business activity with a substantial influence on a market may choose to (or may have already chosen to) "give less and charge more" without suffering at the hands of its actual or potential competitors. Accordingly, a government business activity with a substantial influence on a market may have the capacity to influence the competitive conduct of its rivals, in turn enabling it to act, to an appreciable degree, independently of its competitors. This may occur, for example because rivals choose simply to "follow the lead" of the government business activity instead of competing with it.

The capacity to act, to an appreciable degree, independently of rivals may be demonstrated by evidence that a government business activity has in the past been able to alter its relationship with its customers to its advantage without adversely affecting its market share. There are many dimensions to the supplier-customer relationship.

Perhaps the most obvious aspect of the relationship is the price a customer must pay for a product or service. The capacity of a government business activity to increase the price that customers are required to pay where that increase is not related to some general change in its costs, and then to maintain its price at a premium above that which reflects efficient costs, indicates a capacity to act independently of rivals.

Other dimensions to this relationship include the capacity to reduce service quality, or impose onerous terms and conditions, such as requiring the customer to purchase other products or accept take or pay conditions. Of course, in some instances, these conditions may be reasonable, such as where contracts underpin a substantial investment which will be sunk once it is made. The nature of the contractual terms must therefore be considered in the context of the commercial relationship between the parties. The responsiveness of customers to a change

[2] Subject to the State based third party access regime contained in part 5 of the QCA Act.

imposed by the government business activity will assist in ascertaining its degree of independence from its competitors.

Competitors may be unable or unwilling to compete with the government business activity. They may be unable to compete because they lack the capacity to do so sustainably without jeopardising their long term future or because they rely upon a government business activity for an essential input that is not available elsewhere. Alternatively, they may be unwilling to effectively compete because they perceive doing so is incompatible with the pursuit of their commercial objectives.

This will particularly be the case where the government business activity is in a strong position to "punish" competitors. One way in which a government business activity can punish competitors is to heavily discount its product or service in particular markets or otherwise act to inflict economic harm on an "excessively aggressive" competitor and then subsequently raise prices above a competitive level. In such a situation, would-be competitors may carefully calculate their strategy so as not to attract the government business activity's attention. In such an environment, competitive rivalry in the market may be severely constrained.

The meaning of competitors in this context is not limited to actual competitors (i.e. those actually involved in the same market as the government business activity), but extends also to potential competitors (i.e. those most likely to be capable of successfully entering the market). That is, if the market is contestable, it is not a monopoly or near monopoly. However, actual competitors, with a current presence and operational capacity in the market, will normally be a far more effective constraint on the conduct of government business activities than potential competitors.

2.3 Matters to be Taken into Account in Assessing the Effectiveness of Competitive Pressure

In assessing the effectiveness of competitive pressure as a constraint on a government business activity, the following factors are relevant:

(a) the extent to which vigorous rivalry exists and the extent of barriers to entry; and

(b) whether there is any evidence of the government business activity exercising substantial market power, which may include, for example, pricing excessively.

An absence of vigorous rivalry and the existence of barriers to entry constitute the primary test. If there is an absence of vigorous rivalry and barriers to entry exist then the activity is a monopoly business activity. If there is evidence of vigorous rivalry and no barriers to entry exist then the activity is not a monopoly business activity.

Where the primary test is inconclusive or there is insufficient information for it to be applied, the second test relating to the evidence of the exercise of substantial market power is applied.

3. PROCESS FOR IDENTIFYING GOVERNMENT MONOPOLY BUSINESS ACTIVITIES

In ascertaining whether or not competitive pressure is exerted upon a government business activity, it is necessary to thoroughly investigate the relevant industry. Basically, a three-step process is envisaged:

step 1 – determines whether the activity is a government business activity;

step 2 – defines the markets in which the government business activity operates; and

step 3 – assesses the intensity of competition in those markets that may be relevant to the enquiry.

3.1 Step 1 – What are Government Business Activities?

The first step in the process is to properly define the product or service which is to be the subject of the analysis. This will also enable the government business activity to be defined.

The QCA Act defines a government business activity as the trading in goods or services by a government agency. The business activity must be provided by a government agency of the State or a local government. If provided by a local government entity, only significant business activities (as defined under the *Local Government Act 1993*) are covered by the definition. In practical terms, a government business activity becomes:

> *An activity undertaken by a government agency that involves trading in goods and services.*

It should be noted that:

(a) ‘government agency’ means a government company or part of a government company; or a State instrumentality, agency, authority or entity, or a division, branch or other part of a State instrumentality, agency, authority or entity; or a department or a division, branch or other part of a department; or a government owned corporation; or a local government entity. A local government entity means a local government or part of a local government, or a local government owned corporation (and is a significant business activity);

(b) ‘trading’ requires goods or services to be provided to another legal entity. Supplying services to separate legal entities, even if wholly or partly owned subsidiaries, is likely to constitute trading as this would involve a sale and invoice to the acquiring entity. However, ‘trading’ does not include internal transfers within a single entity for which there is some allocation of cost. Whether a particular transaction is ‘trading’ may depend on the circumstances of the case; and

(c) ‘trading in’ requires actual trading as opposed to the mere potential for trading. Therefore, a refusal to supply goods or services to any other legal entity will not constitute a business activity for the purposes of Part 3. [Depending on the circumstances, a refusal to supply services may be able to be addressed under Part 5 or Part 5A of the QCA Act].

Put differently, a non-government business activity does *not* include:

(a) goods or services that are provided to other parts of the same legal entity;

(b) a refusal to provide goods or services to another legal entity;

(c) activities of government agencies whose role relates solely to regulatory or policy functions, as they do not trade in goods or services; and

(d) activities of local government entities that are *not* significant business activities.

It is important to recognise that a government agency may undertake several distinct business activities. For example, each major traffic category of a railway operator is likely to constitute a separate business activity. Accordingly, coal, minerals and grain traffics could be separate business activities.

Moreover, even within a traffic class, there may be more than one business activity, if for example, there are distinct markets served by that class of traffic. For example, a rail operator may have less market power for the transport of a particular commodity in the domestic market than in the export market. In such a case, the two markets served may be considered as separate business activities.

Consequently, it is critical to precisely define the product or service that is the subject of the analysis. This is essential in order to correctly define the relevant market, which is the next step in the process.

3.2 Step 2 – Market Definition

Market definition is a critical step in the process of identifying market power. Adopting too narrow a market definition will tend to exaggerate the degree of market power ascribed to a government business activity. Conversely, defining a market too widely could effectively "hide" a position of market power.

This highlights the very important role of market definition in providing insight into the likelihood of an incumbent’s ability to charge more or offer less. Indeed, the processes of market definition and assessing market power are intertwined – it is only for analytical convenience that they are considered separately.

What is a Market?

A market for a product or a service includes all products or services which are in close competition or rivalry with that product or service. However, some suppliers face little or no competition for the products and services they sell. Indeed, a single product or service may constitute its own market.

Defining a market involves drawing a line through the chain of substitutes for a product or service which potentially compete with it. Although there is no single universal or definitive test that can be applied, one approach is to look for a marked gap in the chain of substitution possibilities. Alternatively, one may consider the range of suppliers who are likely to respond to a significant price increase (or to a change in some other variable in the customer supplier relationship, such as quality or availability) within a reasonable period and the extent of that response in terms of the likely volume of transactions.

In determining the magnitude of the price increase, one approach is to consider a 5-10% increase, which is broadly that currently adopted by the Australian Competition and Consumer Commission (ACCC). However, the critical issue is not the size of the price increase per se, but the relationship between price and profitability.

In addition, care must be taken in applying this test as it can lead to the perverse result where markets with prices currently above competitive levels appear to be more competitive than otherwise identical markets already experiencing competitive pricing. This is because a 5%

price increase in an already competitive market may not attract any new entrants; yet induce new entrants into an otherwise uncompetitive market. This could lead to the conclusion that a market is competitive when in fact substantial market power had already been exerted.

In defining and analysing a market, it is important to consider the purpose of the investigation. In the case of identifying government monopoly business activities, the purpose will be to assess the extent of competitive pressure exerted upon the government business activity. Pricing at levels above those which could be obtained in competitive markets by government monopoly business activities has the capacity to undermine the international competitiveness of the Queensland economy, hinder the efficient development of this State's resources and cause adverse equity effects.[3]

Accordingly, the market should be defined from the perspective of the government business activity under consideration by analysing the competitive pressures exerted upon it with a view to ascertaining the extent to which it is constrained by those pressures.

The analysis will need to address the following dimensions of market definition:

(a) the product market (i.e. alternative products or services or substitutes which can be used instead of the incumbent's products or services);

(b) the geographic market (the geographical region from which alternative sources of supply may be found);

(c) the relevant functional level of the market under consideration; and

(d) the period of time allowed for an effective competitor to enter the market.

In practice, it is often found that market definition involves a particular dimension of the market being contentious and consequently, in such a case, the analysis may need to focus especially on that issue. For example, if there are no close substitutes for a product, attention may focus on the geographic dimension of the market.

Products comprising a Market

The product market comprises products or services which are substitutes of the product or service in question[4]. For example, electricity and gas may be substitutes for one another in markets if a modest increase in the price of electricity causes consumers to readily purchase gas instead (although this may not be the case for consumers who can only switch energy source after undertaking expensive alterations to their plant and equipment).

Alternatively, substitutes may exist where producers are able to switch production in response to a price change. For example, an increase in charges at one port for containers may encourage other ports to increase their capacity to handle containers in response.

[3] From an economic perspective, the process of raising prices and forcing users to poor alternatives or going without creates distortions in resource allocation because resources are directed away from their highest value use. For example, if a monopolist were able to charge very high prices for electricity that were well above the cost of supply, energy users could, over time, consume alternative fuels such as gas or oil, even though the cost of producing these alternatives was higher than the cost of supplying electricity. In addition, monopolists often devote considerable resources to protecting their position in a market, by investing in a way which discourages new entrants.

[4] An example of a product is forest products, such as plantation logs, and a rail transport service is an example of a service.

The degree of substitution depends upon the current prices for the two products. A monopoly may increase its prices to the point where it faces some competition from other products. Indeed, it will often be in a government monopoly business activity's commercial interest to raise its price to just below the point where customers are forced to consider what should be poor substitutes or do without altogether.

Consequently, a government business activity may have substantial market power despite it appearing to face competition. This situation can arise because the government business activity may have exercised its market power to the point where prices have risen sufficiently to induce new entrants into the market. This is discussed in more detail in step 3 below.

The past behaviour of buyers and suppliers of possible substitutes (for example, in the past, what price movement has been required before buyers and suppliers have altered their behaviour) can assist in ascertaining market boundaries. In reviewing this past behaviour, it will also be relevant to assess the relative price levels and price movements of the product compared to potential substitutes. Where the prices of the product and substitutes closely follow one another, it may be evidence they are good substitutes. Other factors which may be relevant include buyer and supplier attitudes and technological change.[5]

Customer inertia occurs because of switching costs. Switching costs include all of the costs involved in a customer switching to an alternative supplier. The existence of switching costs means that customers may be reluctant to change supplier if they perceive the cost of doing so outweighs the benefit (even if this is not the case).

Switching costs and customer inertia may be critical in market definition. For example, it may be expensive for customers to switch from gas hot water heating to electricity or vice versa. Similarly, the cost of establishing production and distribution systems for a product which is closely substitutable with the relevant products will be critical in defining the extent of the market. If these costs prevent entry, then possible substitutes will in fact be poor substitutes.

Geographical region

The geographic region of a market is determined by assessing whether an increase in price in one location substantially affects either the sources of supply for that region or price in another region (where both regions are affected by the same market conditions).

Accordingly, defining the geographic market involves a similar process to that taken in defining the product market. The geographic dimension of the market is defined by the economic feasibility of sourcing alternative products from elsewhere, including imports from overseas (although many of the products and services provided by government monopoly business activities are unlikely to be subject to import competition).

[5] There appears to have been a greater preparedness by Australian courts to take account of factors other than substitution possibilities, such as "commercial realities", when defining markets. Commercial realities provide greater recognition of matters such as dynamic factors, potential competition, industry viewpoints and public attitudes. Again, however, one must also be wary of the prospect of monopoly pricing inducing new competitors which would not be attracted into a market if it were not for the high prices charged by the government business activity. In such a case, the government business activity could have substantial market power. In addition, care must be taken because price movements may be correlated for other reasons, such as reliance upon a common input or because of collusion across markets. One must always analyse the underlying circumstances.

Factors which may impinge upon the geographic dimension of the market include:

(a) transportation costs for alternative sources of supply – for example, the cost of transporting water may increase substantially with distance due to higher leakage or evaporation (where transported in open channels); and

(b) constraints on suppliers selling to the government business activity's customers – for example, once the capacity of the existing water distribution system is approached, the line becomes constrained.

Just as is the case with product markets, the cost of extending or switching production and distribution systems to supply the customers of the government business activity and the cost, or inconvenience, for customers in switching to alternative sources of supply, will be factors affecting market definition.

For example, ports many hundreds of kilometres apart compete for the traffic to be provided by new projects, but once a port user is committed and establishes the necessary infrastructure for a particular port, then it may be very expensive to change to another port. Similarly, a price rise for water in one region is unlikely to entice other water boards to compete because of the need to establish infrastructure.

Functional level

In defining a market, it is also important to remember there can be several distinct phases to the production process (e.g. manufacturing is distinct from wholesaling, which is distinct again from retailing). Manufacturers do not generally "compete" with wholesalers or retailers, and therefore do not form part of the same market.

For example, water bought at the retail level by an end user is often comprised of a range of products and services, including natural and manufactured supply sources, distribution and reticulation services. In addition, the end user may use water as an input to the production of a wide range of products and services. Each step in the production chain can constitute a different functional market with a different level of competition.

It is important that focusing on one functional level does not obscure the analysis of an entity's market power, which may arise through vertical integration with other functional levels. For example, an analysis of market power in above-rail services may overlook the fact that the railway operator's market power arises from its control over rail tracks. Accordingly, when defining the functional market for a business activity, one should be aware of the impact of vertical integration with other functions which may have greater significance for market power.

Time

The time dimension refers to the period over which substitution possibilities ought to be considered for the purpose of defining the market. The scope of the market will expand with the period of time allowed for a market definition.

Potential competition is not as effective a constraint as actual competition. Consequently, if a potential competitor requires new investment to enter a market, then it will not normally be included in the relevant market definition for a government business activity. This is principally because these potential competitors are not in a strong position to exert competitive pressure upon an entrenched government business activity.

For example, if a two-year delay is involved in sourcing rolling stock to enable a rail provider to compete with an incumbent, then that potential competitor may exert competitive pressure for a new mine due to open in two year's time. However, that potential competitor is unlikely to be in a position to effectively exert competitive pressure for the incumbent's existing traffic. Consequently, in general, it is proposed that only imminent developments should be taken into account for market definition for assessing whether government business activities should be classified as government monopoly business activities (although the approach will vary depending upon the circumstances of each case).

Once the relevant market has been defined, the intensity of the competitive pressures can be assessed and other relevant factors, such as the extent of barriers to entry, can be considered.

3.3 Step 3 – Assessing the Level of Competition in the Market

The principal factors which assist in determining if a government business activity is not effectively constrained by competitive pressures in a market, are the absence of vigorous competition in the market together with the existence of barriers to entry for new entrants into the industry (or to the expansion of existing rivals).

If the above factors are inconclusive, for example as a result of a lack of relevant information, a second test relating to evidence of the exercise of substantial market power by the business activity (e.g. by way of excessive pricing, inefficient operations or cross-subsidisation) is applied.

3.4 Lack of Vigorous Competition with Barriers to Entry

This element considers two factors, a lack of vigorous rivalry and the existence of barriers to entry. A government business activity will be a monopoly business activity if there is a lack of vigorous competition in the market accompanied by the presence of barriers to entry.

Evidence of Vigorous Competition

Market share may appear an intuitive indicator of the effectiveness of competitive pressures in a market. A government business activity's market share represents the proportion of market demand it fills, in terms of capacity or the value or volume of sales.

Generally, a government business activity must have a significant market share for it to be not effectively constrained by competitive pressure. Leaving aside the underlying reasons why a particular market structure may have evolved (which are considered below), the principal reason why a large market share is accepted as demonstrating a lack of vigorous rivalry is due to the practical inability in the short term for small competitors to increase their market share sufficiently in response to the government business activity increasing its prices. Consider, for example, a business activity with a 90% market share. Assuming demand remains at current levels, competitors must be able to effectively double their market share from 10% to 20% in order to reduce the government business activity's market share by 10%.

However, there is no agreement amongst competition agencies around the world on what thresholds are relevant. This is due to many reasons, including:

(a) a market share provides no information on the underlying market characteristics. For example, in the electricity generation market, electricity generators with relatively low market share can influence prices, especially at peak times because of the nature of the market (which requires supply and demand to be continuously and instantaneously balanced); and

(b) a government business activity's market share does not indicate how it was achieved. For example, an entity's market share may be attributable to its relatively low prices, rather than its market power. Moreover, a government business activity with a low market share may have set prices so high that firms offering inferior substitutes are induced into the market.

Accordingly, whilst a substantial market share will be relevant in characterising a government business activity as a government monopoly business activity, a minimum threshold requirement should not be applied. Instead, the focus of the analysis should be on the more significant issue concerning the intensity of the competitive pressure within the market and the consequences of the incumbent charging more or giving less.

For example, volatile market shares (assuming there is no trend towards increasing the market share of the most significant supplier) can suggest a competitive market, even if one of the participants has a relatively high market share. This is because the changing market shares themselves can demonstrate that competitive pressures are operating within the market.

Whilst circumstances will vary, the existence of at least one vigorous competitor is critical to establishing the existence of a competitive market. A vigorous rival is one who actually exerts effective competitive pressures on a government business activity. The presence of a vigorous rival substantially reduces the likelihood of a government business activity being characterised as a government monopoly business activity (unless rivals have been induced into the market by the government business activity's monopoly pricing).

In this context, at least one vigorous rival's presence in the market place must be sufficiently substantial to ensure it is not only capable of exerting, but in fact exerts, effective competitive pressures upon the government business activity. Generally, a vigorous rival must have the capacity to substantially increase its output within a reasonably short period of time in order to ensure the incumbent cannot successfully "charge more or give less" and preferably be an entity with significant financial backing.[6]

A complication can arise where a potential vigorous rival of a government business activity is itself a government business activity. This situation arises for example in electricity generation and in the provision of certain port facilities in central Queensland. In such an environment, the degree of independence demonstrated by the government business activities and the extent of competition between them will be relevant in establishing whether they provide an effective competitive constraint for one another.

Another related means by which competitive pressures may be imposed is through import competition, where it is feasible. This is because it is possible to rapidly expand imports in response to a government business activity's higher prices, especially where the import competition already has an established presence in local markets. However, import competition will not generally be feasible in markets involving government monopoly business activities.

Vigorous rivalry is unlikely to exist where a government business activity, through its position in the market, has the capacity to "punish" aggressive competitors, by, for example, deeply discounting products in particular markets that adversely affect particular competitors and subsequently raising its prices above a competitive level. This tactic can be used to ensure competitors do not encroach upon a government business activity's market leadership. The

[6] The existence of a highly concentrated market structure may give rise to concerns about collusion (or tacit collusion) between the market participants. The experience of competition policy has been that it is easier for a smaller number of firms to collude and behave as a single monopoly than for a larger number of firms. However, the appropriate response to collusive activity is to take action under the *Trade Practices Act, 1974* rather than attempt to undertake prices oversight (unless such collusive behaviour is determined to be in the public interest by the ACCC).

capacity for an incumbent to engage in this type of conduct is facilitated where price discrimination is possible or where barriers to entry enable government business activities to retain their market power.

The absence of vigorous competitive rivalry in the market raises the issue of the existence of barriers to entry.

Barriers to entry

Any person, be it a government or non-government business activity, able to charge excessive prices will generate large profits in the short term. However, in general, these high profits will attract new entrants into the market and ultimately lead to increased competition and innovation. The existence of barriers to entry can frustrate this process by discouraging the new investment that market forces would normally be expected to entice.

Any factor which discourages new entry into an industry, so that government business activities are not constrained to act competitively, can be accepted as a barrier to entry. Barriers to entry may be regulatory, structural, or strategic (i.e. created by an incumbent specifically in order to discourage entry). Thus any feature of an industry or a market which puts a potential entrant at a long run competitive disadvantage relative to incumbents, thereby preventing market forces from eroding an incumbent's market power, will be a barrier to entry.[7]

Barriers to entry can include:

(a) sunk costs, which are perhaps the best known structural barrier to entry. Sunk costs are the costs necessarily incurred in becoming a viable competitor that cannot be recovered if entry fails. In assessing the significance of sunk costs, it is not just the amount that is sunk that is important, but also the length of time expected to be required before these costs are recovered. Examples of sunk costs include the construction costs for a gas pipeline (since virtually all of these costs will be lost by investors if entry is unsuccessful), staff training and advertising and promotional costs associated with establishing a recognised presence in the market;

(b) legal or regulatory barriers, such as licensing requirements or legislated monopolies (e.g. tying arrangements). An example of a regulatory restriction on competition is the limitations on carrying coal by road transport;

(c) access to scarce resources (including know-how and intellectual property);

(d) cost advantages enjoyed by incumbent firms (not related to the incumbent's superior productive efficiency directly attributable to the incumbent’s performance);

(e) informational advantages enjoyed by incumbents – for example, where the market structure is such that a government business activity immediately becomes aware of any existing customer changing supplier, it enables the business activity to subsequently target that customer – for example, where an incumbent will become aware of any customer seeking to use another provider;

(f) the nature of relationships in the market – for example, the existence of long term contracts (or vertical integration) in an industry can represent a major barrier to entry for a potential entrant due to these contracts (or the market structure) effectively rendering a proportion of the market non-contestable;

[7] Barriers to entry may also arise from superior performance by a government business activity.

(g) brand loyalty and customer inertia. Whilst a degree of buyer loyalty exists for any product, in certain instances, the need to gain market acceptance of a new product can significantly delay successful entry and therefore constitute a barrier to entry. Inertia can arise for many reasons, including fear and uncertainty of change, lock-ins (e.g. where the customer will remain dependent on the business activity for some of its services), information and changeover costs, the nature of customers' decision making processes and any other marketing advantages possessed by an incumbent;

(h) insufficient demand **-** for example, where the minimum efficient scale of an enterprise in the industry (i.e. the minimum size necessary for an entrant to compete with incumbents in the industry) is large relative to current demand, with limited opportunities for trade, the number of efficient firms in a market will be small. In such instances, the presence of an incumbent may preclude entry by prospective efficient entrants because the market simply may not be big enough to support them. This is likely to be the case where there are economies of scale or scope associated with production technology, or where there is already excess capacity in the industry;

(i) where a government business activity controls an "essential facility" or a natural monopoly[8] such as rail track for the transportation of coal. For example, control over rail infrastructure potentially provides a substantial advantage to the owner as it could use its control to stifle competitive activity in the provision of above-rail services (e.g. scheduling maintenance to interrupt its competitor's traffic)[9;] and

(j) where a government business activity can undertake strategic behaviour to discourage competitive conduct or entry. There are many forms of strategic behaviour which are designed to discourage competitive conduct or entry, including exacerbating customer inertia (described above), investing in excess capacity or otherwise generating uncertainty for any prospective entrant about the prices that are likely to prevail in the market after entry.

When assessing the impact of barriers to entry for a prospective competitor, it is important to consider the interaction of the barriers taken together, as they affect the best qualified competitor (i.e. the competitor most likely to successfully enter, or increase its share in, the market). In this regard, actual competitors are more likely to effectively constrain a government business activity than potential competitors.

Examining the success or failure of new entrants in the past or the total absence of any new entry in an industry that has generated high long-term profits may also indicate that barriers to entry exist.

Accordingly, in the absence of vigorous competitive rivalry, the presence of any barriers to entry is likely to indicate the government business activity is a monopoly business activity, especially if the best qualified entrant does not have an established presence in the market.

3.5 Evidence of Exercise of Market Power

Evidence of an absence of vigorous rivalry and the existence of barriers to entry is the primary test for a monopoly business activity. However, the absence of relevant information may render

[8] A natural monopoly arises where the most cost effective means of meeting market demand is with a single facility, rather than any combination of smaller or more specialised facilities.

[9] Although the extent to which this occurs will depend in part upon the effectiveness of Part 5 of the QCA Act, which deals with third party access to the services provided by these facilities.

the first test inconclusive. For example, where there is more than one supplier, there may not be enough information in the public domain to conclude whether there is vigorous rivalry. Further, barriers to entry may hinge on contractual arrangements that are not publicly available.

Where the primary test is inconclusive, the second test relating to the evidence of the exercise of substantial market power is applied.

In order to ascertain whether a government business activity is exercising substantial market power, the following considerations are relevant:

(a) the extent to which the business activity's economic income represents an excessive return on its asset base;

(b) whether there is a material difference between the productive efficiency of a government business activity relative to best practice benchmarks (an example of a lack of productive efficiency arises with gold plating of assets or poor operational efficiency) and there is evidence that the business activity's economic income would be excessive were it not for its inefficient operations; and

(c) whether the government business activity cross-subsidises between profitable and loss making activities.

Clear evidence of a government business activity's pricing or production behaviour persistently incorporating any of these elements suggests competitive pressures may not be exerted on the entity. In this regard, it should be noted that in competitive markets firms that persistently engage in these forms of conduct normally do not survive in the long run.

3.6 Summary of Analysis of Competitive Pressures

If the analysis of the market indicates effective competitive pressures are being exerted, because of vigorous rivalry or a lack of barriers to entry, then the business activity will not be considered to be a monopoly business activity. If there is an absence of vigorous rivalry and barriers to entry exist, then the activity is a monopoly business activity.

Where the primary test is inconclusive, for example as a result of insufficient information for it to be applied, the second test relating to the evidence of the exercise of substantial market power is applied. In this instance, if there is evidence of substantial market power being exercised, then the activity is a monopoly business activity for the purposes of Part 3 of the Act.