



## **Independent Consumer & Competition Commission**

### **Rice Pricing Review**



### **Issues Paper**

**17 January 2005**

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## 1. Forward

The Independent Consumer & Competition Commission (Commission) is a statutory body, established under the provisions of the *Independent Consumer and Competition Commission Act 2002*, which has been given responsibility for the promotion of competition & fair trading, the regulation of prices for certain goods and services, and the protection of consumers' interests and other related purposes.

In its role of regulating prices of certain goods and services, the Commission has the responsibility to regulate prices of rice products. In PNG nearly all the rice products (fully milled, blended and packaged) are imported and distributed by two companies; Goodman Fielder International Limited (GFI) that distributes the **Flame** brand and Trukai Industries Limited (Trukai) which distributes **Trukai** (both white and brown rice) as well as **Power, Sunlong, Roots,** and **Kwikrice** brands. Between the two, Trukai has about 90 to 95% of the total rice market in Papua New Guinea (PNG) whilst the balance represents the market size held by GFI and other small scale local farmers in PNG including any remaining imported rice products.

Briefly, the current regulatory arrangements under the Prices Regulation Act (Chapter 320) cover the following areas:

- ✎ Review of rice prices, undertaken on a bi-monthly basis and directed at consideration of exchange rate movements, imported price changes, international freight and handling charges;
- ✎ Movement in other non-commodity costs such as storage, labour, overhead and manufacturing costs; and
- ✎ The setting of a fixed retail and wholesale margin to be applied to the sale of rice products.

Under the provisions of Section 25A (6) of the Prices Regulation Act, the Commission has decided to undertake a major review of the pricing regulatory arrangements applying to rice and rice in its various packages. This review will *inter-alia* consider whether the present price control arrangements for rice should continue to operate in their present form or be varied, or whether the price control arrangements should be terminated.

To assist the Commission in making informed decisions, the Commission is calling for submissions from all interested parties including the local rice companies, retailers, consumers and other interested parties. The Issues Paper is intended to provide a brief overview of the issues that will be considered as part of the review and the processes that the Commission will use in undertaking the review.

The timetable for the current review is as follows:

Release of Issues Paper	-	17 January 2005
Receipt of Public Submissions	-	25 Febrarury 2005
Release of Draft Report	-	15 April 2005
Receipt of submissions on Draft Report	-	27 May 2005
Release of Final Report	-	1 July 2005

Submissions to the Commission will be available for public inspection unless the Commission agrees that all or part of the submission should remain confidential. However, in accordance with the provisions of the ICCC Act, it is intended to make the review process as transparent as possible and to this end, submissions would normally be available for public inspection unless there are exceptional commercial-in-confidence reasons why submissions be held in confidence.

Submissions to this inquiry should be received by 25 February 2005 and should be directed to:

**Thomas Abe**  
**Acting Commissioner**  
**Independent Consumer & Competition Commission**  
**P.O. Box 6394**  
**BOROKO,**  
**National Capital District**  
**Papua New Guinea**

All telephone or email inquiries should be directed to Mr. Taunao Vai on 325 2144 or on email address: [tvai@iccc.gov.pg](mailto:tvai@iccc.gov.pg)

## **2. Introduction**

### **2.1 Background to the Review**

The methodology that is currently used to set prices for **Rice** was originally devised back in the early 1990's and has basically remained unchanged since that time.

Much of the work under the former price control regime was administered through the Price Controller's Office and was less transparent than is envisaged under the ICCC Act. Notwithstanding agreed procedures for price evaluations, reviews were more focused on current costs and not other factors such as new investment requirements, service standards, and a balancing of the interests of the regulated business and consumers as is now required under Section 21(2A) of the Prices Regulation Act Chapter 320.

Hence, in light of the changed legislation relating to price regulation, there is the need for a review to decide whether to continue, amend or terminate the current regulatory arrangements for rice. Upon concluding the review process, the ICCC as the regulator should have developed a transparent, accountable and consistent pricing methodology beneficial to both consumers and the participants in the Rice Industry.

### **2.2 Legislative requirements**

The Independent Consumer & Competition Commission is undertaking this review in accordance with the amended provisions of the Prices Regulation Act (Ch. 320). In undertaking this review, the Commission is to have regard to the following:

- Sections 10, 20 (A & B), 21, 25 and 32A of the amended Prices Regulation Act;
- Confidentiality and public disclosure provisions of the Act on information received from submissions; and
- The current and prospective outlook for the Rice Industry in PNG.

Under Section 10 of the Prices Regulation Act (Chapter 320), the Government through the Minister for Treasury has declared the prices for both white and brown rice products for price control purposes.

The *Independent Consumer & Competition Act 2002* made a number of changes to the Prices Regulation Act under which the prices for rice products are controlled. In particular, the Prices Regulation Act was amended in the following ways:

- A new section, Section 20A was included which requires the ICCC to publicly notify its intention to undertake a review of a Pricing Order under Section 21 of the Prices Regulation Act.

- Section 21 (2A) (see Appendix) was added which introduces specific requirements on the ICCC in terms of the matters that it must consider when making a Pricing Order including encouraging greater efficiency, ensuring an appropriate rate of return and appropriate safeguards for quality, reliability and safety for the supplying industry, and protecting consumers from the misuse of market power by suppliers of declared goods and services.
- Sections 25A, 25B and 25C were introduced which specify the process by which a review of a Pricing Order can be undertaken including the deadlines that must be met, the requirement for the Commission to publish details of its decisions, and the form of a decision that can be taken by the Commission as a consequence of such a review.
- Section 25A (6) allows the Commission of its own accord to initiate a review.
- Section 25C (3) specifies that in response to a review, the Commission may determine to:
  - ⇒ Continue to operate the existing price control arrangements in their present form,
  - ⇒ Vary the existing price control arrangements, or
  - ⇒ Terminate the present price control arrangements.
- Section 32(A) provides for the declaration of goods or services for price monitoring purposes as an alternative to price control. This is a less stringent form of regulation, which effectively allows the Commission to oversee the prices being charged for the declared goods or services, without requiring the industry to incur the cost of more heavy-handed direct price control.

Under a prices monitoring arrangement, if it is evident that price movements are not reflective of appropriate competitive market benchmarks, the Commission can recommend to the Minister for Treasury that the relevant goods or services be declared under Section 10 of the Prices Regulation Act (Chap.320) for full price control purposes.

These amendments to the Prices Regulation Act increase the flexibility of the Commission in terms of its overall price control activities, and allow for appropriate mechanisms to be developed and implemented that meet the objectives of the Government in terms of price control while minimising the cost of undertaking the price control tasks, thereby ensuring that price control does not of itself create other unintended adverse economic consequences.

### **2.3 Format of the review process**

This review is initiated under the provisions of Section 25A(6) of the *Prices Regulation Act*. The process of review will be public and transparent and in addition to the rice industry, other interested parties and the public are invited to make submissions to the review.

The process will involve the following broad stages:

- ◆ Public announcement of inquiry & invitation for submissions to be made to the Commission;
- ◆ Release of an Issues Paper discussing aspects of the inquiry and the major issues that the Commission believes need to be considered;
- ◆ Release of a Draft Report and the inviting of submissions on that Draft Report;
- ◆ The possible holding of Public Hearings on the Draft Report and
- ◆ Release of the Final Report and Determination.

A timetable for the review has been provided in the Forward to this Issues Paper. Copies of submissions received by the Commission (unless treated as being confidential) will be available for public viewing at the Commission's office on a 'Public File' or copies can be obtained from the Commission at a nominal cost for photocopying. The Draft Report and Final Report of the Commission are also public documents and can be obtained from the Commission's office once they are released.

### **3. Structure of the Rice Industry in PNG**

#### **3.1 Import, manufacture and supply of Rice products**

Under the existing arrangements, the importation, manufacture, packaging and distribution of Rice products in PNG are undertaken by GFI for “Flame rice” and Trukai Holdings Limited for “Trukai (brown and white), Power, Roots, Kwikrice and Sunlong” branded rice products. Whilst a significant portion of the operations of both GFI and Trukai in the context of rice involves importing ready milled, blended and packaged rice grains or products whilst undertaking only distribution domestically through their existing distribution channels, Trukai undertakes about 20% of its milling, blending and packaging onshore.

At present there are no tariff barriers on imported rice. Thus the potential does exist for new entrants to supply rice into PNG without any additional costs barrier. Nonetheless, the established brands in the domestic market, particularly Trukai appear to have a strong brand loyalty from the domestic rice consumers. Notwithstanding this, there is a domestic supply from small scale farmers who have acquired the rice cultivation, milling, blending and packaging skills and knowledge through aid donor assistance, Church groups and other NGOs. However the output from these producers at this stage is insufficient to meet a larger proportion of the domestic demand for rice.

#### **3.2 Distribution and wholesaling of Rice products**

Fully blended and packaged rice is imported from Australia, Asia and the Middle East into PNG by the two companies identified above. Whilst most of the rice imported is fully blended and packaged, Trukai imports some medium grain rice for processing and packaging in PNG in its Mills located in Port Moresby and Lae. This accounts for about 20% of its available supply. The grain is processed and packed into various Rice products for distribution via Trukai’s own distribution networks and to major customers such as wholesalers and retail supermarkets. The packs come in various sizes ranging from 500g to 50kg to meet consumer requirements.

Currently, each rice company is responsible for storing and distributing its own products to other locations in the country from their respective warehouse and terminals in Port Moresby and Lae through their branch networks and authorized outlets. Typically, each rice company is a wholesaler with the distribution of products undertaken either by themselves or by contractual arrangements with established wholesalers and retailers. The current price regulated wholesale margin is 11% on the ex-terminal price. However the companies particularly Trukai at present appear to be charging a lower margin than the allowable wholesale margin due to volume considerations.

### **3.3 Retailing of Rice products**

The provision and sale of rice products at the retail level is undertaken by the retailing sector. Retailing activity is independent from the operations of the manufacturers' activities. Retailers may also directly import certain rice products. Nonetheless it appears the two main domestic rice producers enjoy a significant market position in the retailing sector.

Under existing price control arrangements, the retailers are entitled to a retail margin of 10% on the wholesale price for declared products. The review will also consider the appropriateness of these margins.

## **4. Retention of Price Control**

### **4.1 Current pricing arrangement**

Rice has become one of the main staple foods in PNG. The supply of rice is predominantly met by one company, Trukai. The current pricing control arrangement could therefore be seen in the context of protecting consumers from the possibility of price exploitation. Initially the price control mechanism introduced made use of an “import parity” approach to price determination. That is, prices in PNG were determined on the basis of the cost of importing the same or similar products from the overseas port concerned after allowing for freight, insurance and handling to deliver the rice products to PNG and associated government levy (2% import levy) and other statutory imposts including freight and cartage to main ports within PNG. Thus in effect, prices in PNG for Rice products were capped at a level that reflected the competitive import prices.

Currently prices are set on the basis of a ‘cost plus’ approach including domestic manufacturing costs. That is the regulated businesses advise the Commission of movements in their major costs drivers including the costs of the imported rice grains and fully packaged rice products and, subject to a materiality test of the overall price change against the last price change, prices are adjusted accordingly. The costs that are included in the ‘cost plus’ approach are:

- The international cost and freight of imported rice; (including the 2% import levy);
- Insurance;
- Manufacturing and overhead costs;
- Domestic freight, cartage, wharfage, storage and handling costs; and
- A mark up of between 3% and 11% on the total of the above for the various rice brands/products.

A main port price per tonne for the individual rice products is determined using this formula, and prices for individual pack and product type are determined from the movement in main port prices including wholesale and retail margins (to a maximum of 11% and 10% being the regulated margin for wholesale and retailing respectively) from one period to another.

### **4.2 Continuation of price regulation**

Under the provisions of Section 25C(3) of the Prices Regulation Act, the Commission must determine whether to:

- Continue to operate price control in its present form, or
- Vary the form of price control, or
- Terminate price control.

Any decision to terminate price control needs to be based upon the current projected state of the industry. Price control was originally introduced to protect consumer welfare from price exploitation since rice represented a major component of the local diet. Further at that time, a single manufacturer and distributor existed and thus had the potential to exploit its sole supplier market position. Since that time, a second rice producer and distributor has established itself in PNG and these two now appear to meet most of PNG's Rice needs. Also small scale subsistence based rice production is supplying a smaller portion of the domestic market. Furthermore, there are no import restrictions on rice and other suppliers, wholesalers or retailers may import freely.

The major source for demand for rice consumers in PNG are domestic households who hold very little countervailing power in terms of the prices charged for Rice products. Suppliers may therefore be able to exploit their market dominance in the prices that are charged. However, since price regulation was first introduced, there had been the entry of a new domestic supplier. This suggests that there exists the opportunity for additional competition should prices be set at levels which exploit the present market position of existing suppliers. Notwithstanding the entry of new suppliers, there is a strong allegiance to the 'Trukai' brand reflecting the taste and other non price attributes. Trukai also holds upwards of 90-95% of the domestic rice market, and thus retains a strong influence over the local supply of rice products. Thus there may still be a need to provide some form of price regulation for these products used by households where competition in PNG is limited because of lack of imported substitutes, inelastic demand and limited number of suppliers.

**The Commission is seeking information and submissions on the current and projected state of competition and contestability in the Rice market in PNG and the need to continue some form of price regulation**

### **4.3 Form of price control**

On the assumption that some form of price control or price regulation should be continued for rice and rice products in PNG, the Commission is required to consider whether the existing form of regulation should apply and if not, what alternative form of regulation should be used.

The options that are available to the Commissions are identified in the Prices Regulation Act, namely;

- ✚ Price control as Declared Goods under section 10 of the Prices Regulation Act; or
- ✚ Price monitoring as Declared Monitored Goods under section 32A of the Prices Regulation Act.

Price control as a Declared Good would require the Commission to have regard to the provisions of Sections 20A, 20B and 21 of the Prices Regulation Act. Specifically that would require the Commission to:

- ✦ Undertake a lengthy public review process each time it was proposed to alter the maximum prices approved under the Price Declaration;
- ✦ Prepare and publish draft reports and other material relating to the proposed price change; and
- ✦ Have regard to the requirements of Section 21 (2A) of the Prices Regulation Act that *inter alia* require the Commission to ensure that an appropriate balance is kept between the interest of consumers and the suppliers/manufacturers of rice products.

To meet these requirements, the Commission can establish a price direction/price path which could provide for some degree of automatic adjustment of prices albeit against an approved price adjustment methodology (see Section 5 of this paper).

Price Monitoring under section 32A provides a less intrusive method for price regulation. Under the price monitoring approach manufacturers/suppliers can adjust their prices without the need for Commission approval. Prices of products ex-terminal/warehouse in Port Moresby and Lae would be monitored by the Commission against a selected benchmark. This would allow the Commission to monitor the prices being charged by the local manufacturers against accepted international benchmarks for rice products.

**The Commission invites submissions on the forms of regulation (i.e., price control or price monitoring) that should be applied to rice products in PNG.**

## 5. Price Control Methodology

### 5.1 Building Block verses Cost Plus Approach

Under the provisions of Section 21 (2A) of the Prices Regulation Act, if some form of price control is retained, the Commission is required to have regard '*inter alia*' to the following:

- ✚ The need to protect consumers of declared goods from the misuse of market power
- ✚ The cost of producing the declared good
- ✚ The desirability of encouraging greater efficiency in the production and supply of declared goods
- ✚ The need to ensure an appropriate rate of return on any investment in the production or supply of the declared goods
- ✚ Quality standards
- ✚ The impact on inflation of a price control order
- ✚ The economic and social impact of a price control order.

The need to achieve a balance between the interest of the suppliers/manufacturers and consumers is embodied in these legislative requirements.

The Commission must therefore consider what the best mechanism is to achieve these particular objectives.

The Commission has elsewhere sought to achieve these objectives by linking the determination of regulated prices with the efficient costs of producing or supplying the regulated goods or services. This allows the Commission to differentiate between the actual costs that a manufacturer/supplier may incur, and the 'efficient/best practice' costs that apply to the provision of that good or service. The prices that consumers are required to pay therefore do not include inefficiencies or inappropriate cost pass through that might otherwise occur in a market where there is no regulation and the supplier has a degree of market power.

The Commission understands that there are efficiencies in milling and manufacturing and distribution practices that are being introduced in other countries but which may not have been adopted in PNG at this time. The Commission will be interested in exploring the extent to which production efficiencies are available and ways in which these efficiency savings can appropriately be shared between the manufacturers/suppliers and consumers.

The introduction of some forms of efficiency improvements may require new investments by manufacturers/suppliers. Before investing in any new equipment or technology, the manufacturer/supplier would normally want some assurance that the price of goods sold would allow for the cost of the investment to be recovered together with a return on the investment. A 'cost plus' approach to

pricing regulation of the type currently used for rice in PNG does not allow for a recovery of this investment over time. An alternative form of price regulation that both allows a recovery of these costs while at the same time a sharing of the benefits with consumers needs consideration.

The Commission, when adopting a 'building block' approach, has included in the building block costs over time, an allowance for the recovery of new prudent investment expenditure and a rate of return on that investment. This is achieved by using forward projections of operating and capital costs rather than a static cost plus approach which relies upon actual costs incurred over the most recent period.

A 'building block' approach is therefore linked to the forward projection of costs over a period of time (often five years). These cost projections are based on efficient costs of production (taking into account the particular operating environment in which the business operates) and prudent capital expenditure projections. These projections are also developed in the context of forward projections of demand.

The main components of the 'building block' approach are:

- Operating costs
- Return of capital (depreciation)
- Return on capital

Under this methodology, prices would be based upon a recovery of all these costs over time.

**The Commission is inviting comment on the use of a 'cost plus' versus a 'building block' methodology in the setting of prices, or the use of some other methodology for setting prices**

## **5.2 Components of building block approach**

In order to use a building block approach (or even a 'cost plus' approach), the Commission will need to obtain information from the industry on the various costs components that are involved in importing, manufacturing and supplying rice products. The Commission needs to 'test' or benchmark these cost estimates in order to come to a view as to whether they reasonably reflect 'efficient' costs.

Operating costs need to be examined in as much detail as possible. The industry has already raised concern about certain costs not having been reviewed at regular intervals in the current pricing methodology, particularly costs impost associated with freight and cartage. The Commission would anticipate that as part of the current review process, these costs would be reviewed prior to their inclusion in any form of pricing model.

A building block approach would normally need to project costs over a period of up to five years. As discussed below, this provides an environment where not only

efficiency gains can be passed through to consumers, but the businesses themselves have an incentive to outperform the efficiency costs included in the pricing model and therefore achieve a higher rate of return than that built into the regulated price path. Use of forward projections also allows a more automatic price adjustment process, thereby reducing the overall costs of regulation over time.

The current pricing model allows a 'mark-up' of between 3% and 11% on costs. The Commission has no evidence to support whether this mark-up is an appropriate rate of return on the investments in the industry. Furthermore, as the mark-up is applied as a percentage of costs, there is no incentive for the regulated entity to achieve efficient costs as this would reduce the kina value of its mark-up.

**The Commission is seeking input into what are the efficient operating costs for rice milling, blending, packaging and distribution in PNG**

A rate of return appropriate for the industry needs to be determined for inclusion in the building block model. The rate of return should reflect an appropriate return on the investment by the business in the manufacture/supply of regulated goods. The Commission would normally use a Weighted Average Cost of Capital (WACC) as the basis for the appropriate rate of return. The WACC will take into account issues such as the appropriate return that the business should generate on both the equity and the debt capital in the business.

A Capital Asset Pricing Model (CAPM) is the type of financial model normally used by the Commission to determine the WACC. To populate the CAPM model, the Commission will need to have regard to the risk free rate of return that presently applies in PNG, the additional costs that should be included to reflect appropriate commercial debt margins on the risk free rate, the level of the additional risk that rice milling and packaging might attract above and beyond the standard risk allowances that would apply to other businesses in PNG, the treatment of tax (a pre tax or a post tax rate of return) and the normal debt equity ratio that should be applied to this industry.

The Components of the WACC are discussed in more detail in the Commissions final Report on the Water industry and Post PNG. Copies of these reports can be obtained from the Commission.

**The Commission is seeking submissions on the appropriate rate of return to use for the rice industry in PNG and the components of a CAPM calculation of WACC**

The rate of return must be applied to some valuation of the business to provide a value of the return on investment generated on an annual basis.

There are various methods used to derive a value of the investment. Ultimately the Commission is seeking to determine the financial value of the business. Thus, while some estimation of value may be built around the asset values of the

business (the Regulated Asset Values Base or RAB), effectively the Commission is attempting to derive an 'economic value' of the business reflecting not simply the investment that has been made in the business over a period of time, but the value of the business to its owners (and therefore the value on which they would expect to generate a financial return).

There are various options available to the Commission in terms of the valuation that should be used. These include:

- ✚ Historical Value: this represents the written down book value of the business. The advantage of this approach is that the value can be readily obtained from the financial account of the business. However, this value will be in Kina of different years (and therefore of different underlying value) and the assets may no longer be fully utilized (that is, sub-optimal) and therefore would not normally be expected to generate a return to the business
- ✚ Optimised depreciated replacement costs (ODRC): this form of valuation reflects the current costs of the assets that are in use after allowance for assets that are not fully used (optimised out of the valuation) and deduction for the value of assets that have already been 'consumed' in an economic and financial sense (depreciation). The advantage of this approach is that it effectively represents the value of the business if a new entrant was to buy the assets at their replacement costs today. The disadvantage is that it represents an upper end of the valuation scale and its determination is open to a high level of subjectivity in terms of the equipment and technology that might be used to undertake rice milling ,packaging and distribution in PNG
- ✚ Optimised deprival value (ODV): essentially this valuation reflects a compromise in terms of the two extremes of historical value and ODRC in that it is measured as the lesser of ODRC and the value that the asset owner would have to be paid to compensate them fully if they were deprived of the asset. The value that the owner would be paid if they were deprived of the asset is the greater of the scrap value of the asset and the economic value.

The economic value is usually determined by the use of some form of Return on Asset Test (RAT) or may be determined based on a market value of the business if it is sold as a going concern, The advantage of the ODV valuation is that it reflects the market value of the business and as the Commission is seeking to determine a financial value upon which to apply the WACC to generate the return on investment, it more closely reflects this objective than say the historical or ODRC valuation methodology.

**The Commission seeks comments on the methodology used to derive a Regulated Asset Base for purposes of applying the WACC to generate the return on investment**

Using a building block methodology that seeks to establish a price path over a number of years, it is normal practice to roll into the RAB new investment that

occurs over the regulatory period of up to five years. New investment would only be rolled into the RAB on which a return on investment is calculated if the investment is considered to be prudent.

The Commission will require information on the projected prudent capital expenditure likely to be incurred by the rice businesses over the period of the regulatory price path.

Adjustment to the RAB is also required for the consumption of capital (that is depreciation) and asset sales and disposal that occur over the period of the price path. The Commission will need to obtain information on the rates of depreciation applied to various asset categories by the industry and projected asset disposals or sales over the period.

**The Commission is seeking information on:**

- \*The prudent capital expenditure over the regulatory period of up to five years;**
- \*The rates of depreciation used on the remaining asset lives of existing assets; and**
- \*Anticipated scrapping or disposal of assets over the period of the price path**

### **5.3 Price path determination**

The Building Blocks model is designed to provide an efficient cost based estimate of the revenue requirements of the Rice milling, packaging and distribution businesses over the price path period. This estimated revenue requirement will be expressed in current or real terms, depending on the form of modeling undertaken. The projections of anticipated costs are based on the best available advice at the time the price path is set. However, the revenue projection will need to take into account actual changes in underlying costs over time. The rate of actual costs changes across the economy (the level of inflation) may in practice be different to the estimates included in the building block cost modeling.

Thus, it is normal to link the revenue requirement to some form of inflation based formula, such as of the CPI +/- X type. In effect, this formula, which is based on the revenue requirement derived from the cost building block modeling, allows for changes in the general level of inflation (the Consumer Price index or CPI component) and makes an adjustment through the X factor for changes in efficiency levels, demand projections, capital investment requirements, and other factors that have been built into the modeled required revenue projections.

While it is normal to use CPI in this type of price/revenue adjustment formula<sup>1</sup>, it is also possible to use other indicators of underlying cost changes (such as movements in relative exchange rates). The Commission would favour the use of CPI rather than exchange rate adjustments. However the Commission has used exchange rate adjustments in conjunction with CPI movements in certain circumstances.

For an industry such as Rice where a high proportion of the final value is a reflection of the value of the imported rice product, there may be merit in deriving a pricing formula which separates the cost of imported rice product from the domestic incurred milling/production, and packaging costs. In these circumstances the Commission would need to satisfy itself that the cost of the rice products being included in the final revenue requirement and price path formula reflected an arms length, Commercial price at world parity rates. This is an option that the Commission will need to consider.

**The Commission invites submissions on the appropriate form of the required revenue/price path formula that should be used for Rice milling and packaging and distribution. The Commission also seeks comments on the possible treatment of the costs of imported rice grain or product in the pricing formula**

#### **5.4 Volumes of Demand and Production**

For the Commission to consider appropriate costs for production, distribution and final sale of rice products, it would be desirable to have estimates of total domestic demand and the supply of this demand from domestic production and imported supply. The Commission will also need to relate operating costs with throughput volumes for the relevant mills/packaging plants/distribution centres.

In order to derive appropriate estimates of costs, the Commission must allocate fixed costs over the throughput of production, and allocate variable costs with the volume of product being produced and/or handled. The Commission therefore needs from the industry:

- The total demand anticipated for rice/rice products over the next five years;
- A breakdown of total demand by local manufactured/packaged verses wholly imported product; and
- The volumes of production assumed in the cost estimates produced by the industry.

**The Commission invites submissions on the projected demand and domestic manufacture/production and imported supply of rice/rice products over the next five years.**

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<sup>1</sup> The Commission uses an 'adjusted' CPI prepared by the National Statistician which excludes betel nut and alcoholic beverages

## 5.5 Price path period

Incentive regulation of the type the Commission favours requires that the price path be set over several years (rather than a year on year process as inherent in a 'cost plus' approach). The Commission would normally favour a five year price path. This allows sufficient time for the pricing formula to maximize its desirable attributes of encouraging greater efficiency while providing price certainty for both consumers and suppliers. It also reduces the dead weight cost of repeated intensive price reviews.

Under a CPI +/-X price path, the regulated business effectively faces a price or revenue cap on its sale of regulated goods and services. Provided the regulated business can retain its costs within the cost projection used in the building block model used to derive the CPI +/-X price path, the regulated business will earn a commercially acceptable rate of return and recover all efficient costs. If the business can reduce costs below those included in the building block model, the business can retain the financial benefit of these additional cost savings for the period of the price path. There is no claw back or requirement to force these additional cost savings to be passed through to consumers during the period of the price path. To achieve cost savings, the regulated business will in all probability want more than one or two years to put into place various cost saving technologies. The CPI +/- X form of regulation provides the incentive for the business to make these types of cost saving investments. A five year price path allows sufficient time for the industry to implement cost saving technologies.

**The Commission invites comments on the length of the regulatory period**

## 5.6 Price for individual products

The price path if expressed in total revenue requirement terms needs to be converted into prices for individual rice products. The industry produces a range of products and different product sizes. A price control mechanism needs to define how prices for individual products should be changed consistent with the overall total revenue requirements.

A number of options are available to the Commission. These include:

- ✚ Setting prices for individual products based upon some form of direct cost allocation methodology for each product and adjusting these prices in accordance with movement in the price path formula;
- ✚ Setting an average price for a basket of similar products, allowing individual prices within this basket to be set by the manufacturer/supplier and adjusting the average price using the price path formula;

- ✚ Setting a total revenue cap and allowing prices to be set such that, together with demand projections, they result in total revenue outcomes consistent with the required revenue cap.

**The Commission is seeking comments on the way in which prices for individual types and sizes of products should be set consistent with the overall objective of recovery of the efficient building block costs**

### 5.7 Cartage and sea freight

Coastal and land freight costs under the current pricing arrangements are included in the cost recovery for rice products ex-terminal/warehouse. These costs reflect the average cost of delivering products to outlying areas in the country, depending upon the contractual arrangement between the rice company and the local shipping or cartage operator.

The Commission must determine whether prices should be set ex-terminal/warehouse at the place of manufacturer or ex warehouse in Lae and Port Moresby, or delivered to the customer/retailer. The Commission must also determine what an appropriate efficient cost is for that freight service. The Commission also needs to consider how and whether to regulate this cost.

The Commission notes that for some other products, coastal freight charges are regulated using either a price monitoring or price control formula, but for others coastal freight charges are not regulated. Also the Commission notes that it is regulating coastal freight charges for rice but not road transport charges. The Commission must consider whether this differential treatment of coastal freight from other freight should continue.

**The Commission is seeking submissions on the inclusion of coastal or cartage freight as part of the cost build up for ex-terminal/warehouse prices. The Commission is also seeking input as to what value should be applied to such freight services and how this cost should be adjusted over the regulatory period.**

### 5.8 Timing of price adjustments

If the outcome of this review is that some form of price regulation should continue, the Commission will seek to put into place a price determination which will provide a degree of pre-determined adjustment to prices within an overall incentive based price path model. This approach may provide for price adjustments to be made annually and that during each year the business would manage its overall costs such that it keeps its total costs within the modeled revenue requirement derived from the forward projection of the efficient cost building block model for the industry.

However another option would involve more regular price adjustments, reflecting movements in the costs of imported rice which makes up a larger part of the final price charged to consumers.

More regular price adjustment effectively reduces the effect of incentive price regulation and reduces it to a cost plus form of regulation with all its associated disadvantages to the industry as well as the community as a whole.

One alternative may be to allow regular (for example, monthly) flow through adjustments in price for changes in the cost of imported rice and rice products. The Commission would need to be satisfied that these costs were determined on an arms length basis and reflect movements in an import parity price for rice and the rice products.

Under this arrangement the Commission would effectively set the revenue requirements for the production, packaging, and distribution functions undertaken by the rice companies domestically and allow a pass through of the movement in the import parity price of rice based on some independent indicator. To preserve the advantage offered by an incentive regulation methodology, the production/packaging costs could be set on an annual basis, thereby encouraging the rice companies to manage their domestic operating costs within the cost based revenue requirements of the production, packaging and distribution activities of the companies. The cost of the imported rice landed in PNG would be allowed to flow through to the final price for rice products, and then using an appropriate formula, converted to a price for particular rice products and package sizes.

One of the issues that the Commission will need to consider is the ability to determine an arms length pricing for rice given the supply arrangements for rice supplied from Australia.

**The Commission is seeking views and submissions on the timing for price adjustments under the regulatory price path, and what options might be available to retain the benefit of an incentive form of regulation while at the same time allowing for a pass through of what would be an arms length international prices for rice.**

## **6. Wholesale Margin on Rice Products.**

### **6.1 Activities covered**

At present, the wholesale activity is undertaken by various independent wholesalers and to some extent by the two rice companies (GFI & Trukai Industries Ltd) in cases where a major retail operator purchases direct from the rice terminal/warehouse. To discourage smaller retailers from purchasing direct from the terminals/warehouse, the rice companies set minimum purchase requirements. The current wholesale margin on rice products is set at 11%. This margin does not cover the cost of freight from the wholesaler's premises to the retailer. These costs are separate and are not subject to price control under the current arrangements.

The current allowable retail margin for rice is 10%. However, where a retailer purchases direct from the rice companies at ex-terminal/warehouse price, the retailer is allowed a margin of 18% which is less than the combined (and cumulative) 11% wholesale and 10% retail margin. This appears to be an anomaly

The wholesaling function is undertaken by a limited number of businesses in PNG. While some degree of competition exists between wholesalers/retailers in the larger centres where consumers can access more than one retail outlet, the opportunity for competition is not as high in other centres and remoter locations. In these circumstances there is the potential for market power to be exercised in a manner that could disadvantage consumers.

**The Commission must consider whether some form of regulation of wholesalers' margins should continue and if so what form of regulation (i.e. price control or price monitoring) should be used. Submissions are invited on this issue**

### **6.2 Form of regulation**

Assuming price regulation continues in some form, the Commission must decide on the most appropriate way of applying that regulation and the level of the margin allowed. If price monitoring is adopted whereby the wholesaler could set their own wholesale margins, the Commission would compare movements in this margin with an appropriate benchmark with the threat of full price control should margins be increased above an appropriate benchmark. This is a less intrusive form of regulation, although it requires access to some form of benchmark that can be readily obtained and used for price monitoring purposes. The Commission will also need to put in place appropriate data collection arrangements whereby it can obtain information on the margin charged by the wholesaler.

If a price control mechanism is used, the Commission would need to determine the appropriate level of the wholesale margin and the process whereby an approved change in the margin could be made. The process of reviewing changes in the margin in response to an industry request would necessitate a lengthy and

detailed process whereby the Commission would effectively need to model the efficient costs of wholesaling rice.

Rather than undertake a detailed review of these margins each time a change is requested, the Commission could adopt a 'price path' approach similar to that discussed above whereby the Commission would evaluate an appropriate formula linked to some appropriate indicator of cost changes (and incorporating some form of efficiency adjustment) and this formula could be applied over a number of years without the need for a full price review.

This form of regulation is often referred to as 'incentive regulation', and the price adjustments formula used is often of the  $CPI \pm X$  type. It is this type of price adjustment mechanism that has been used to regulate the determination of retail margins for petroleum products. The advantage of this approach is that it provides a greater degree of certainty to the regulated business while at the same time ensuring that consumers are not required to pay any more than the efficient cost of delivering the service. It also has other advantages in that while the initial price path process is data intensive, the price adjustment mechanism over the price path period is relatively simple, cost effective and non intrusive.

The current pricing arrangement of setting the wholesale margin at 11% has been in existence for quite some time, and may not be reflecting adequately the efficient cost of the wholesaling activity.

At the same time, the Commission acknowledges that, in terms of the wholesaling function the ability to separate the costs of wholesaling rice from the wholesaling of other regulated and unregulated goods and services handled by a wholesaler raises considerable practical difficulties. In these circumstances the Commission may have to consider an alternative approach of reviewing more broadly the wholesale margin applied to a range of food products. The Commission currently applies a standard 11% wholesale margin on a range of regulated food products such as tinned fish, tinned meat and flour. In these circumstances a broader examination of the wholesale margin on regulated foodstuff as a group may be a more appropriate approach at this time.

The current regulated wholesale margin is based on a percentage markup of the ex-terminal price. This percentage markup has remained fixed for many years. Any increase in the kina value of the markup has been dictated by changes in the ex-terminal/warehouse price of rice. The continual use of a percentage markup may have some practical advantages from a regulatory perspective provided it represents a reasonable reflection of cost recovery. However simply because the import value of rice has risen due to seasonal factors in the supplying countries may not be sufficient reason for the kina value of the mark-up to rise. The Commission will consider the relative merits of an absolute kina value versus a percentage markup approach to set the wholesale margin.

**The Commission is seeking views on the way in which price regulation of the wholesale sector of the rice industry should be undertaken. In particular the Commission notes the requirements of Section 21 (2A) of the Price Regulation Act and the need for the Commission to have regard to the desirability of encouraging greater efficiency in the industry, the cost of supplying the wholesale service, and the need to ensure that an appropriate rates of return on any investment be provided while also protecting consumers from the misuse of market power. The Commission is seeking views on how best to balance these various requirements. The Commission is also seeking information on the level at which the wholesale margin should be set**

## **7. Retail Margin on Rice Products**

### **7.1 Activities covered**

The retailing activities for the sale of rice are provided by businesses such as trade stores, supermarkets and other convenience stores. The larger supermarkets usually have their own wholesaling division and supply many of the small retail outlets and trade stores. There appears to be a high concentration of market power in the hands of a relatively few retail/wholesale businesses in PNG. While there is some evidence of competition between these businesses in the larger centres such as Port Moresby and Lae, in the smaller centers and remote rural locations there is little if any competition between retail outlets for the sale of rice products.

Currently the retail margin of 10% is declared under the Prices Regulation Act (amended) and is factored into the final rice product price. The 10% margin on the into-store price for the retailer has been fixed at this level for a number of years.

The retailing activities of retail stores cover both regulated rice products plus a wide range of other regulated and non-regulated products. Thus, in any consideration of the appropriate costs to be recovered from the regulated products, allowance must be made for costs that more appropriately relate to unregulated activity.

**The Commission must consider whether some form of regulation of retailers' margins should continue and if so what form of regulation (i.e. prices control or prices monitoring) should be used. Submissions are invited on this issue**

### **7.2 Form of regulation**

Assuming price regulation continues in some form, the Commission must decide the most appropriate way of applying that regulation and the level of this retail margin. If price monitoring is adopted whereby the retail outlets could set their own margins, the Commission would simply compare the margin charged with an appropriate benchmark with the threat of full price control should the industry lift their margins above that indicated by the benchmark. This is a less intrusive form of regulation, although it requires access to some form of benchmark that can be readily obtained and used for price monitoring purposes. Also, with a large number of small retail outlets and limited competition between these retail outlets in most instances, there may be little incentive for an individual retailer to keep the retail margin within the bounds set by the benchmark. This would also create monitoring and compliance checking problems for the Commission.

If a price control mechanism is used, the Commission would need to determine the appropriate level of the controlled margin and the approved process for changes in that margin overtime. The process of reviewing the margin in response to an industry request would necessitate a lengthy and detailed process whereby the Commission would effectively need to model the efficient costs of supplying the retail service. This could be costly and intrusive approach for individual small retailers.

As referenced in discussion on the wholesale sector, the Commission could adopt a 'price path' approach whereby the Commission would evaluate an appropriate formula linked to some appropriate indicator of cost changes (and incorporating some form of efficiency adjustment) and this formula could be applied over a number of years without the need for a full price review.

This form of regulation would give incentive and stability for future planning purposes for small business retail operators while at the same time ensuring that consumers are not required to pay any more than the efficient cost of delivering the service. It also has the other advantage that while the initial price path process is data intensive, the price adjustment mechanism over the price path period is relatively simple, cost effective and non intrusive.

The use of some form of a price path linked to an indicator of cost inflation such as the CPI assumes that the price control mechanism would be based on a kina value. However, the present margin is based on a percentage mark up on the 'into store' price for the retailer. This margin increases or decreases along with movements in the 'into store' price. In one sense it already incorporates an inflation adjustment in that as the cost of producing and distributing Rice increases so the kina value of the retail margin increases. However, this may not be appropriate particularly when a large proportion of the into-store value of Rice is the cost of imported rice, a cost that is largely determined by the international grain market and by movement in the Kina's value against foreign currencies. The Commission must therefore decide whether an absolute kina value should be used as the determinant of the retail margin or whether a percentage margin as applied at present should be retained.

**The Commission is seeking views on the way in price regulation of the retail sale of rice products should be undertaken. In particular the Commission notes the requirements of Section 21(2A) of the Price Regulation Act and the need for the Commission to have regard to the desirability of encouraging greater efficiency in the industry, the cost of supplying the retail service, and the need to ensure that an appropriate rates of return on any investment be provided while also protecting consumers from the misuse of market power. The Commission is seeking views on how best to balance these various requirements. The Commission is also seeking information on the level at which the retail margin should be set**