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11 February 2021

Mr Charles Millsteed
Chief Executive Officer
Queensland Competition Authority
GPO Box 2257
Brisbane QLD 4001
Via email: charles.millsteed@qca.org.au

Dear Mr Millsteed

Regulated Retail Electricity Prices for 2021-22

Thank you for the opportunity to provide input to the Queensland Competition Authority's (QCA) Regulated Retail Electricity Prices for 2021-22 Interim Consultation Paper.

Queensland Cane Growers Organisation Ltd (CANEGROWERS) is a not-for-profit public company with the sole purpose of promoting and protecting the interests of sugarcane growers since inception in 1925.

Representing over 70per cent of Australia's sugarcane growers, CANEGROWERS is the peak body for the sugarcane industry. With 13 district offices in Queensland, our strong regional presence ensures that services and advocacy are provided in local communities as well as at the highest levels of industry and government decision-making.

CANEGROWERS is also an active member of Queensland Farmers' Federation (QFF) and endorses the concerns raised by QFF in its response to the QCA's Interim Consultation Paper.

Like QFF and many representative groups, CANEGROWERS is keen to ensure the state's irrigators have access to competitively priced electricity tariffs that take account of the fact that irrigators are typically low-cost users of both electricity network capacity and volume weighted average wholesale electricity prices.

For the 2021-22 retail price determination, CANEGROWERS recommends QCA:

- ***retain** transitional tariffs that contain deep price reductions, reflecting both Network and Retail price profiles associated with electricity used for irrigation, applied over an extended period, at least until the end of the current regulatory pricing period (2025);*
- ***apply** charging windows for three new transitional network tariffs for small business that limit the peak period to 4pm to 9pm, Monday to Friday, with deeply discounted off-peak charges applying at all other times;*
- ***avoid** the inclusion of non-existent costs, including competition costs and any excess retailer margins arising from the continuing exercise of retail market power from the retail component of prices;*
- ***ensure** retail prices in regional Queensland do not exceed the Energex DMO; and*
- ***increase** the small energy user threshold in Queensland from 100MWh to 200MWh.*

As acknowledged in the Interim Consultation Paper, QCA's price review for 2021-22 is occurring before Energy Queensland has lodged its network tariff structure statement with the Australian Energy Regulator's (AER) for approval. The AER and QCA processes are inextricably linked. In the absence of this information, it is difficult to assess the financial impact on irrigators of a switch to either the new business or transitional tariffs.

Given the interwoven nature of the impending AER decision on network prices for both the Energex and Ergon networks and the QCA's determination of retail prices for regional Queensland for 2020-21, CANEGROWERS engaged the Sapere Research Group (Sapere) to inform and provide expert advice on a range of matters impacting the electricity sector and assist the preparation of submissions to both QCA and the AER. Sapere's report in relation to QCA's 2021-22 Interim Consultation paper builds on this work and is **attached**.

Underpinning Sapere's analysis are several fundamental realities:

- Irrigation principally occurs on non-congested parts of the Ergon distribution network.
- Irrigators electricity demand from Ergon has not increased since the completion of Paradise dam in 2005. In recent years that demand has declined as irrigators have invested behind the meter, switching to more energy efficient systems and turning to alternative energy sources such as diesel generation, to avoid excessive regulated retail electricity prices.
- Irrigation electricity demand is not high and does not increase sharply during extreme heatwaves, where periods of greatest utilisation of the network traditionally occur and when wholesale price spikes are most likely.

In relation to the QCA Interim Consultation Paper, Sapere's report contains several very important findings:

- **Consultation Question 1:** The Minister's letter to QCA highlights the need to progress network tariff reform. While Energy Queensland's final Tariff Structure Statement for Ergon is positive for small business, so far network tariff reform has not been successful in introducing cost-reflective tariffs, accounting for the structural changes associated with the increased penetration of distribution energy resources (DER) and avoiding cross subsidies between customer segments. Until network tariff reform addresses these issues, to avoid or minimise inefficient cross subsidies, there is a case for retaining transitional tariffs that contain deep price reductions applied over an extended period, at least until the end of the current regulatory pricing period (2025).
- **Consultation Question 2:** Recognising the shape of the 'duck curve' associated with increased DER, the proposed three new transitional network tariffs for small business should apply charging windows that limit the peak period to 4pm to 9pm, Monday to Friday, with deeply discounted off-peak charges applying at all other times. This would encourage electricity off-take (irrigation use) when DER supply is at its greatest relative to demand and where DER is increasingly likely to cause localised network congestion.
- **Consultation Question 9:** For the reasons outlined above, the duration of the proposed transitional tariffs would extend at least to the end of the current Ergon regulatory control period (2025) and until such time as network tariff design is cost reflective and avoids substantial and structural cross subsidies.
- **Consultation Question 10:** The wholesale energy cost component of the R component should be based on the N structure charging windows. Recognising the generation and storage related costs associated with the right-hand side of the 'duck curve', the structure would include a substantial discount to encourage off-peak use and a premium in the late afternoon/early evening (4pm to 9pm) in recognition of the evening peak.
- **Consultation Question 11:** The proposed methodology for estimating the retail component needs to be modified to avoid inclusion of non-existent costs, including competition costs and any excess retailer margins arising from the continuing exercise of retail market power.

- **Consultation Question 12.** The size of the proposed additional standing offer mark-up needs to be reviewed, possibly using data gathered in the Acil-Allen review, excluding excessive retailer margins associated with retailer marketing power (Question 11 above). Retail prices in regional Queensland should not exceed the Energex DMO.

These findings underpin CANEGROWERS recommendation to QCA.

CANEGROWERS welcomes the steps that have been taken to improve electricity prices in Queensland. We remain concerned that Energy Queensland's new tariff structure statement for its Ergon network is yet to be approved by the AER. This means there is not sufficient information available to assess the impacts of irrigators moving to either the proposed new business or transitional tariffs. We look forward to reviewing the QCA's detailed assessment of these impacts in its draft determination.

Please do not hesitate to contact Warren Males, CANEGROWERS Head-Economics, at Warren_Males@canegrowers.com.au if you require further information.

Regards

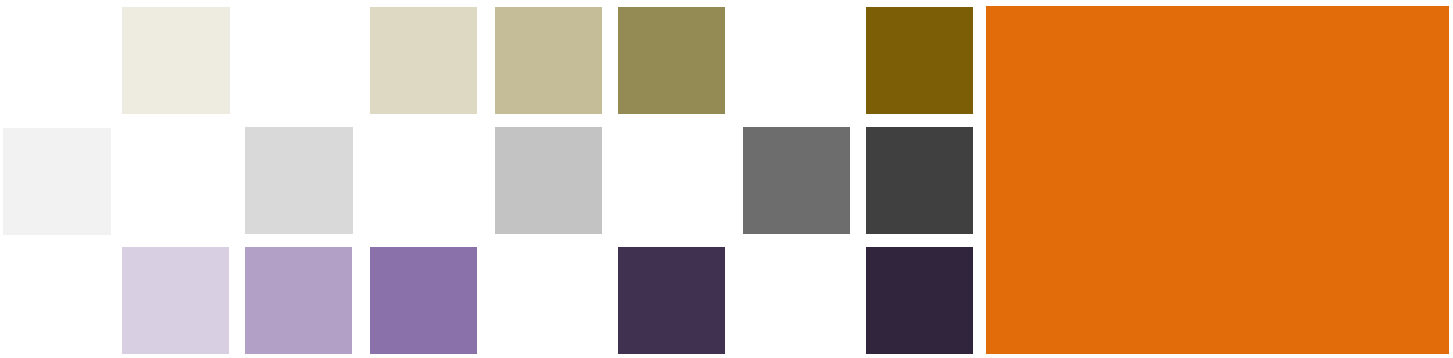
Dan Galligan
Chief Executive Officer

Regulated retail electricity prices for 2021-22, Queensland Competition Authority, Interim consultation paper

Advice for CANEGROWERS

Authors: Simon Orme

Date: February 2021



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Introduction

This report has been prepared to assist CANEGROWERS to respond to a request for comments from the Queensland Competition Authority (QCA) on its *Interim consultation paper for its review of regulated retail electricity prices for 2021-22* ('the QCA ICP'), dated January 2021. CANEGROWERS members are exposed to regulated retail electricity prices in regional Queensland. It has previously invested significantly in successfully influencing the structure of electricity network tariffs, regulated by the Australian Energy Regulator (AER). We understand CANEGROWERS is seeking to ensure that improvements in the design of Ergon tariff structures are retained and reflected in regulated retail electricity tariffs QCA determines for regional Queensland.

Summary comments on key consultation questions

Consultation Question 1: The Minister's letter to QCA highlights the need to progress network tariff reform. While Energy Queensland's final Tariff Structure Statement for Ergon is positive for small business, so far network tariff reform has not been successful in introducing cost-reflective tariffs, accounting for the structural changes associated with the increased penetration of distribution energy resources (DER) and avoiding cross subsidies between customer segments. Until network tariff reform addresses these issues, to avoid or minimise inefficient cross subsidies, there is a case for retaining transitional tariffs that contain deep price reductions, in order to match fixed and marginal network costs, applied over an extended period, at least until the end of the current regulatory pricing period (2025).

Consultation Question 2: Recognising the shape of the 'duck curve' associated with increased DER, the proposed three new transitional network tariffs for small business should apply charging windows that limit the peak period to 4pm to 9pm, Monday to Friday, with deeply discounted off-peak charges applying at all other times, reflecting very low marginal supply costs. This would encourage electricity off-take (irrigation use) when DER supply is at its greatest relative to demand and where DER is increasingly likely to cause localised network congestion.

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Consultation Question 10: The wholesale energy cost component of the R component should be based on the N structure charging windows. Recognising the generation and storage related costs associated with the right-hand side of the 'duck curve', the structure would include a substantial discount to encourage off-peak use and a premium in the late afternoon/early evening (4pm to 9pm) in recognition of the evening peak.

Consultation Question 11: The proposed methodology for estimating the retail component needs to be modified to avoid inclusion of non-existent costs, including competition costs and any excess retailer margins arising from the continuing exercise of retail market power.
Consultation Question 12. The size of the proposed additional standing offer mark-up needs to be reviewed, possibly using data gathered in the Acil-Allen review, excluding excessive retailer margins associated with retailer marketing power (Question 11 above). Retail prices in regional Queensland should not exceed the Energex DMO.

1. Introduction and background

1.1 Introduction

This report has been prepared to assist CANEGROWERS to respond to a request for comments from the Queensland Competition Authority (QCA) on its *Interim consultation paper for its review of regulated retail electricity prices for 2021-22* ('the QCA ICP'), dated January 2021. CANEGROWERS members are exposed to regulated retail electricity prices in regional Queensland. It has previously invested significantly in successfully influencing the structure of electricity network tariffs, regulated by the Australian Energy Regulator (AER). It is seeking to ensure that improvements to Ergon tariff structures in the current Tariff Structure Statement are retained and reflected in regulated retail electricity tariffs QCA determines for regional Queensland.

1.2 Background

Key issues raised in the QCA ICP for CANEGROWERS members principally relate to the proposal to introduce three new small business retail tariffs intended to replace so-called "obsolete" tariffs (62, 65 and 66) from 1 July 2021. These three new retail tariffs are to be based on three new "transitional" tariff structures as set out in Energy Queensland's Amended tariff structure statement June 2020 Erratum, August 2020.[1] In item 2c to the schedule to the 2021 delegation to the QCA these three new tariffs are referred to as Transitional Network ToU Energy Tariffs 1, 2 and 3 (small business).

The bulk of the discussion relates to consultation questions (Questions 1, 2 and 9), concerning the N component. The focus is the proposed new tariffs based on transitional network prices and the matters requiring consideration in this review. We also offer brief comments on the R component (Questions 10-12).

The need for the proposed new retail tariffs appears to be recognised by the Minister for Energy, Renewables and Hydrogen, the Australian Energy Regulator (AER) and Energy Queensland (EQ). Nevertheless, key aspects of the proposed new tariffs are yet to be resolved, including:

1. The structure of the network component of the tariffs, especially the extent to which they incorporate a substantial component for forward looking or long run marginal costs (LRMC), depending on the definition of charging windows and relativities between different rates.
2. Whether the duration of the proposed transitional tariffs would extend at least to the end of the current Ergon regulatory control period (2025) and potentially into the following regulatory period.
3. Eligibility requirements (other than geographical).

[1] EQ describes the new tariff as *Small business transitional demand (new)*.

4. The demand profile to be used for estimating the wholesale energy cost component.
5. Closely related to the previous two points, the extent the new tariffs are cost reflective and hence materially discounted relative to the alternative small business tariffs.

Depending on the eventual outcomes to these questions, there may be a case for further retention of the existing so called "obsolete" tariffs (62, 65 and 66). A major complication, as was the case for the previous QCA review, is that final AER decisions on the "N" component of the proposed new tariffs may not be available at the time of the final QCA decision for 2021-22.

2. Comments on consultation questions

2.1 Functional purpose of cost reflective tariffs

Efficient outcomes on all the tariff design aspects noted above depend on the rationale for the new tariffs. It appears there is some confusion as to the rationale on the part of some decision makers. This section discusses the rationale for the proposed new tariffs.

The functional purpose of cost-reflective tariff designs is to increase network revenues from high cost customers while reducing network revenues from low cost customers. Cost-reflective tariffs seek to allocate incremental network and retail costs to customers whose incremental demand causes the incremental network and retail costs. Just as importantly, incremental network and retail costs would not be allocated to customers whose demand does not cause incremental network and retail costs.

2.1.1 Customer impact principle not relevant

We understand a possible rationale is the customer impact principle in the National Electricity Rules (6.18.5(h)). Instead, it arises from the fact that most DNSP tariffs are not cost reflective in accordance with the network pricing objective and in particular the pricing principle that each tariff must be based on the long run marginal cost (LRMC) of providing [the service], having regard to:[2]

- *the additional costs likely to be associated with meeting demand from retail customers that are assigned to that tariff at times of greatest utilisation of the relevant part of the distribution network; and*
- *the location of retail customers that are assigned to that tariff and the extent to which costs vary between different locations in the distribution network.*

Under the rules governing electricity distribution pricing, subject to transitional and customer impact considerations, network tariffs must be based on the forward looking or long-run marginal cost (LRMC) of providing the service to the retail customers assigned to the tariff.[14] Forward looking costs arise where incremental demand at particular locations during periods of greatest utilisation of the network result in a requirement to augment network capacity at those locations. Such incremental demand results in incremental future network capital expenditure, associated incremental network capital and operating costs, and therefore a higher regulated revenue requirement. These incremental costs then need to be recovered from customers.

[2] See S6.18.5(f)

2.1.2 Existing research on irrigator vs. average customer costs

Previous research undertaken by Sapere, funded by Energy Consumers Australia, CANEGROWERS and the National Irrigators Council demonstrated that existing irrigators are typically low-cost users of both electricity network capacity and volume weighted average wholesale electricity prices. The evidence is that irrigation demand is not high and does not increase sharply during extreme heatwaves, where periods of greatest utilisation of the network traditionally occur, and when wholesale price spikes are most likely.

In the case of Queensland irrigators, the difference between an irrigator and average small business demand profile is illustrated in Figure 1 below.

Figure 1 Irrigator vs. average monthly maximum demand

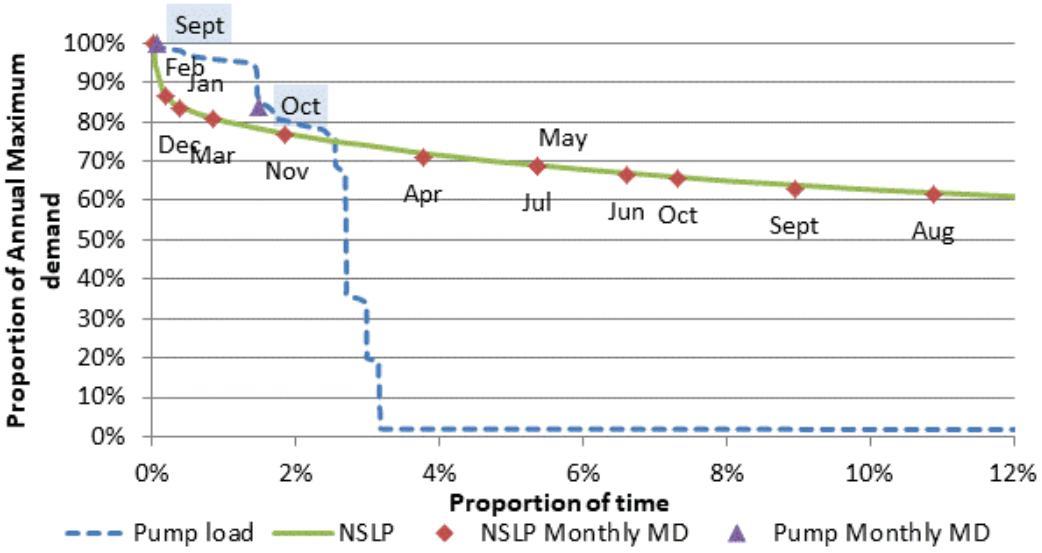

Figure 1 contrasts two annual demand profiles or load duration curves. The green curve represents the typical demand profile for small business and residential consumers in the Ergon network, without digital meters.[3] The peak demand periods occur in February, January, December and March. There is, however, no overlap between periods of greatest utilisation of the network and the maximum demand of this pumped load example. For the pumped load, the maximum demand occurs in September and October. The pattern of irrigation water use principally reflects agronomic factors and Queensland's rainfall patterns.

2.2 Implications for WEC component (question 10)

The demand profile analysis summarised in Figure 1 above applies equally to the Wholesale Energy Cost (WEC), constituting a large portion of the R component.

[3] For the period concerned, very few small customers had digital meters.

Our 2018 analysis found that the volume weighted average price (VWAP) for the irrigation demand profile was 59 per cent of the VWAP for the typical demand profile for small business customers in the Ergon region.

We recognise that wholesale markets are undergoing far reaching change. Nevertheless, we would expect the broad result would continue to be valid, given falling minimum and average operational demand, especially during spring and autumn days where there is ample sun or wind, and relatively low levels of underlying demand. The methodology for estimating WEC set out in the Acil Allen report[4] could be used to test whether VWAP during spring periods is increasing or decreasing compared with earlier periods.

While the example above relates to a single profile, similar results were found for all the then available irrigator customer data. EQ itself is in the best position to assess differences in demand profiles between customer classes. This data analysis should underpin its tariff design proposals.

2.3 The cross-subsidy problem (Question 2)

As set out in a series of earlier reports on this topic, the bulk of DNSP tariffs currently approved by the Australian Energy Regulator (AER) do not conform to the network pricing objective and the LRMC pricing principle. Most notably, the forward looking or LRMC component of total allowed revenues (costs) are only a fraction of the forward looking or LRMC component of approved tariff revenues (tariff long run marginal cost (TLRMC)).[5]

When this the over-recovery of LRMC is combined with poorly targeted tariff design parameters (such as excessively broad charging windows), the effect of most approved DNSP tariffs is to shift network costs from high cost customers to low cost customers, thereby creating inefficient cross subsidies between customer groups.

Ergon's small business tariff structures for interim demand and ToU are notable exceptions and stand in contrast to Ergon's residential tariff structures and Energex tariff structures, because TLRMC broadly matches LRMC. This improvement appears to reflect the recognition by the AER in its Draft TSS decision that LRMC for Ergon is modest, due to existing levels of excess capacity.

The charging windows for the standard tariffs reflect the falling operational demand during the middle of the day, due to the continuing uptake of both large and small scale solar, and other distributied energy resources (DER). This is leading to the so called 'duck curve' problem where minimum operational demand during daylight periods is falling.

[4] See *Report to Queensland Competition Authority Updating Retail Costs for the 2021-22 Regulated Electricity Price Review: Methodology document*, 8 December 2020.

[5] See for example TOU on Figure 2 on page 11 of *Regional Queensland distribution and retail price determinations - Ergon Energy revised proposal 2020-2025 and QCA issues paper 2020-2*1 , Sapere report for CANEGROWERS, January 2020

By contrast, as summarised in the table below, the proposed transitional tariffs do not incorporate the progress in the final small business tariff designs. They are not cost reflective, especially under conditions where network congestion in the Ergon region is increasingly occurring during periods of low or minimum operational demand, due to high DER exports.

Tariff	Design feature	Comment
Transitional TOU Energy Tariff 1	Peak price applies for >10MWh between 7am and 9pm	This is not cost reflective. It is a form of declining block tariff with a very broad peak charging window
Transitional TOU Energy Tariff 2	Peak charging window applies for 12 mostly daylight hours every day	This is not cost reflective. It substantially over-recovers LRMC from irrigator customers
Transitional Network Dual Rate Demand Tariff 3	The annual fixed charge imposes a unit rate penalty three times higher once maximum demand at any time exceeds 7.5kW.	This is not cost-reflective

The very broad charging windows or thresholds for the proposed three transitional tariffs may be compared with the tariff structures for small business (and residential) ToU energy and transitional demand. In the case of the ToU energy tariffs, the evening peak is limited to 4pm -9pm. The off-peak period is shifted to the remainder of daylight hours (9am to 4pm), with the shoulder period applying overnight (9pm to 9am).

The design of the existing tariffs provides further evidence that the proposed transitional tariffs are not cost reflective. They therefore need to be amended before they are implemented from 1 July 2021.

A practical option would be to adopt the network tariff structure for the small business interim demand and ToU tariffs. While there may be some movement from the 2020-21 rates, due to the annual reset process, there should be no structural change in the parameters used for these tariffs, in particular the size of the discount for the off peak and shoulder rates.

2.4 Methodology for estimating retail costs (Question 11)

Regarding **Question 11**, the decision to undertake a review in place of indexation is welcome. While there are both upward and downward pressure on retailer costs, ongoing sector consolidation and ongoing improvements in Information, communication and technology capabilities, alongside falling costs could result in a steady if modest net downward trend in total retail costs.

QCA ICP Acil-Allen methodology paper appears to suggest continuing to use a benchmark approach, similar to the approach used to establish benchmark retail cost allowances in 2017. The risks and size of any excess retailer margins in observed retail prices should have declined

following the ACCC retail price enquiry and the introduction of the Default Market Offer (DMO), since this and other measures were intended to reduce the opportunity for retailers to exercise market power.

Nevertheless, as we have previously noted, a key limitation of a deductive approach for estimating retailer costs is that it is unable to identify any excess retailer margins incorporated into observed retail prices. This is because any residual between observed prices and quantified costs is deemed to represent a retailer cost, even in cases where there is no associated cost.

A related issue is that the cost benchmark includes significant competition related costs which do not in fact arise in regional Queensland for <100MWh customers due to the existence of the Uniform Tariff Policy (UTP). This is discussed further in relation to Question 12.

We suggest that QCA acknowledge the two well-known limitations of the proposed methodology and take reasonable steps to make adjustments to avoid the inclusion of non-existent costs. This could for example include reference to the estimation of the residual by the AER in the course of determining the DMO – acknowledging that the AER applied an indexation approach in 2020.

2.5 Standing offer adjustment (Question 12)

Regarding **Question 12**, the QCA ICP does not explain or point to the basis for the additional 5 per cent mark up for standing offer contracts. To the extent any such mark-up reflects real costs, they may be a fraction of the five percent mark-up proposed.

As the Ministerial Delegation appears to have recognised, inclusion of this additional mark-up could result in Ergon retail prices exceeding the Energex DMO. This would be an unsustainable outcome under the UTP.

These considerations suggest that the additional standing offer mark-up should result in a retail price that is below the Energex DMO. They also suggest the size of the standing offer mark-up needs to be reviewed to ensure it reflects actual rather than non-existent costs. It may be possible, for the incidence and size of any average residuals between standing offer and market contracts to be estimated in the Acil-Allen review of retailer cost trends.

2.6 Summary of advice on key consultation questions

Consultation Question 1: The Minister's letter to QCA highlights the need to progress network tariff reform. While Energy Queensland's final Tariff Structure Statement for Ergon is positive for small business, so far network tariff reform has not been successful in introducing cost-reflective tariffs, accounting for the structural changes associated with the increased penetration of distribution energy resources (DER) and avoiding cross subsidies between customer segments. Until network tariff reform addresses these issues, to avoid or minimise inefficient cross subsidies, there is a case for retaining transitional tariffs that contain deep price reductions, in order to match fixed and marginal network costs, applied over an extended period, at least until the end of the current regulatory pricing period (2025).

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About Sapere

Sapere is one of the largest expert consulting firms in Australasia, and a leader in the provision of independent economic, forensic accounting and public policy services. We provide independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies.

'Sapere' comes from Latin (to be wise) and the phrase 'sapere aude' (dare to be wise). The phrase is associated with German philosopher Immanuel Kant, who promoted the use of reason as a tool of thought; an approach that underpins all Sapere's practice groups.

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