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25 February 2004

Mr Tony Hinton
Presiding Commissioner
Gas Access Regime Inquiry
Productivity Commission

By email to gas@pc.gov.au

Dear Mr Hinton

SUBMISSION – REVIEW OF NATIONAL GAS ACCESS REGIME

Max Kimber, Leigh Fletcher and Phillip Venton, engineering and commercial consultants to the Australian gas pipeline industry are pleased to make a submission to the Productivity Commission's enquiry into Australia's national gas access regime.

In addition to their roles as industry advisers, Messrs Kimber, Fletcher and Venton are closely involved in the development of and setting standards for gas pipeline design, construction and operational aspects. Mr Kimber is the Chairman APIA Research and Standards Committee that directs industry funds to research for development of AS2885 and improvement of cost efficiencies of transmission pipelines. Mr Venton is the Chairman of Standards Australia Committee ME/038 – the peak national committee having responsibility to develop and update AS2885 and Chairman Committee ME/038.1 the national committee for the development of detailed engineering for the management of safety and risk for petroleum pipelines. Mr Fletcher is the Chairman of the Committee ME/038.2, the national committee for the development of detailed engineering and risk management for pipeline welding.

We trust that our submission will assist the Commission in its deliberations, and we would be pleased to offer other information should the Commission require it. You may contact us via Mr Kimber, whose address and phone numbers are shown below.

Yours sincerely

Max J Kimber
on behalf of Messrs Kimber, Fletcher and Venton

Submission to Productivity Commission Enquiry in the Gas Access Regime

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1 SUMMARY

The authors of this submission provide engineering, design, operational, metallurgical and commercial consulting services to the Australian petroleum pipeline industry, with emphasis on natural gas transmission pipelines, access to which is the subject of the Productivity Commission's current enquiry, with particular emphasis on the National Access Code for Natural Gas Pipelines ("Code"). One of the authors, Fletcher, is also the developer of an innovative welding technique for joining pipes which has the potential to reduce the cost of natural gas pipelines in future. This technique is particularly suited to small cross-country pipelines that are ideal to provide gas supplies to regional and rural Australia – a section of the Australian community that is not able to gain access to modestly priced, greenhouse gas friendly natural gas.

The authors wish to provide this submission to the PC to emphasise the need for the PC to examine:

- the negative influences on the engineering quality and safety of high pressure long distance natural gas transmission pipelines by the application of the Code by Australian Competition and Consumer Commission (ACCC) and WA Office of Gas Access Regulation (OffGAR) now part of the WA Economic Regulatory Authority (WA ERA);
- the absence of incentives in the Code and its application by regulators for pipeline developers to undertake financially higher risk investments in pipelines to provide natural gas to regional centres in Australia; and
- the interaction between the Code, CoAG's role in energy developments and the disregard exhibited by state based technical regulators for the use of the Australian Standard AS2885 – *Pipelines - Gas and Liquid Petroleum* – as the single and sufficient standard for the design, construction and operation of natural gas.

2 NEGATIVE INFLUENCE OF THE CODE ON ENGINEERING QUALITY AND SAFETY

In a number of submissions and presentations to the PC hearings on gas, various groups have made reference to cost savings by reducing pipeline operating costs, for example:

IPA submission¹ *"The current regime has fostered major gains in opening the way for greater competition and in bringing a far greater accent by pipeline businesses on cost-saving."*

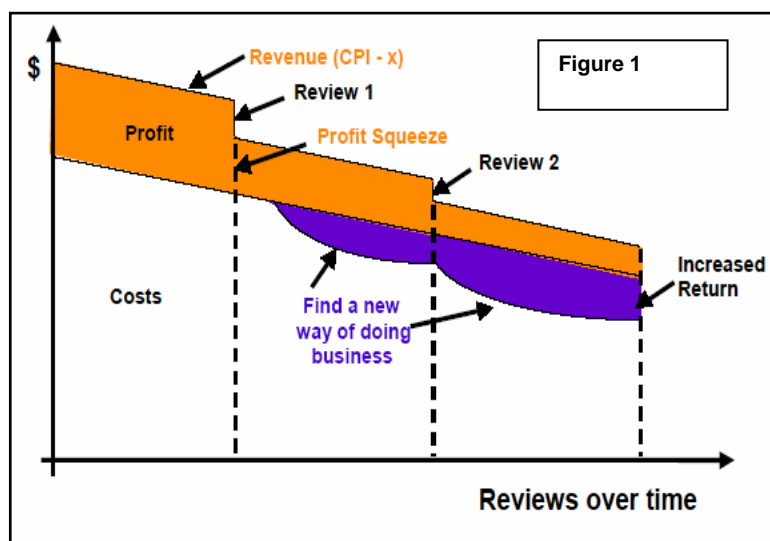
Energy Action Group² *"There have been some minor savings in delaying some works like GasNet's pipe pigging operations, but nothing substantial offering useful long term savings to gas consumers. Why would a regulated gas entity (or any other regulated entity) look to the incentive mechanism, particularly given the bloated regulatory returns and lack of the simulation of competitive markets as practiced [sic] by all Australian members of the National Regulators Forum."*

Regulatory bodies, such as ACCC and the Victorian Essential Services Commission, have insisted that while operating cost savings may be available to the service provider for the regulatory period

¹ Alan Moran, IPA, *Reforming the Regulatory Arrangements for Gas Pipeline Networks - Submission to the Productivity Commission* August 2003 Energy Issues Paper Number 27 p 1

² Energy Action Group, *Submission to the Productivity Commission Review of Gas Access Regime*, Issue 24

(usually 5 years or less), all or most of such gains must be transferred to users in the next regulatory period. This process was illustrated by Mr Mark Harper – see **Figure 1** – in an address to the Australian Pipeline Industry Association in August 2003. Mr Harper indicated that the benefits of efficiency gains, as illustrated in Figure 1 by “Profits” are progressively eroded by each regulatory



reset, making it necessary for the service provider to make further reductions in operating costs to result in the same amount of profit – shown by “find a new way of doing business” in Figure 1. We have found that the most likely and, in the short term, the easiest method of increasing the return is to dispense with the services of skilled professional and technical staff who form the foundations of the safety and long term efficiency of a pipeline operating organisation.

One of us, Kimber, made the point in

a recent paper³.

“Pipeline owners and maintenance contracting organisations have progressively de-skilled their operations in pursuit of labour cost reductions without making the link between pipeline safety and integrity, and specialised skills. Clear evidence of the disastrous effect of this was the failure of Esso’s Longford Gas Plant. The Longford Royal Commission found⁴:

Until 1991, engineers were stationed at Sale and worked at the Longford plant daily. In doing so, they had a close involvement with the ongoing operation of the plant and constant interaction with operations personnel. This placed them in an ideal position to monitor the plant operating conditions and operator practices.

In 1992, Esso relocated all its plant engineers to Melbourne as part of a restructuring of the company.

The physical isolation of engineers from the plant deprived operations personnel of engineering expertise and knowledge which previously they gained through interaction and involvement with engineers on site. . . .

The relocation of engineers qualified as a permanent change to operating practices requiring risk assessment and evaluation before implementation in conformity with Esso’s management of change philosophy. Yet such relocation was implemented without any such assessment ever taking place.

There were no experienced engineers on site at the time of the accident on 25 September 1998. Expert knowledge from that source, of plant operating parameters, of the metallurgical limits of equipment and vessels..... [was] absent.

The dangers inherent in this type of management approach have been highlighted by a number of authors⁵ commenting on the way in which complex organisations manage complex facilities. In particular, Perrow, Spiekhout⁶ et al. and Hopkins refer to “High Reliability Organisations” (HRO) and conclude that high pressure gas pipeline companies fit into this category. HROs demand special management and skills.

The author’s observations of the Australian pipeline industry provide clear evidence that it will go down the same path unless there is an immediate commitment to employing sufficient skilled and experienced pipeline engineers and technicians. The pipeline industry must implement formal training and succession plans, and the development of an holistic approach to the design, construction and operation of pipelines.”

³ Kimber M.J., *How Safe & Reliable are Our Pipelines?*, The Australian Pipeliner, November 2003

⁴ Longford Royal Commission, *The Esso Longford Gas Plant Accident – Report of the Royal Commission No 61 – Session 1998-98*, June 1999, p. 209

⁵ Hopkins, A, *Lessons from Longford - The Esso gas plant explosion*. 2000.CCH Australia Ltd, ISBN 186468 422 4; and C. Perrow., *Normal Accidents*. Princeton 1999 University Press, New Jersey, ISBN 0 69100412 9, 2nd edition;

⁶ Caerteling J.S., Doree, A.G., Spiekhout J., Suurenbroek Y.E., *Avoiding Safety Disasters In Opening Up The European Natural Gas Market*, Pipeline Integrity Quarter 2, 2003 pp. 85 - 99

This problem has been reported in the United Kingdom and in Europe⁷ in papers to professional journals and in daily newspapers. For example, Felicity Lawrence reported in *The Guardian* on 30 April 2001:

Labour crisis and doubts about maintenance have cast a cloud over an industry once seen as a privatisation success story

Just before Christmas 1999, Andrew and Janette Findlay and their two children, Stacey, 13, and Daryl, 11, were killed when their new bungalow in Larkhall, Lanarkshire, was blown to pieces by a huge gas explosion.

The metal gas main near their house had corroded, causing a leak. A spark from a light being switched on or the boiler starting probably caused the blast.

When engineers dug up the pipe they reportedly found 19 holes in it. The old system of "trigger surveys", to check on mains after snaps of cold weather, had been abandoned by Transco [the owner and operator of the UK's gas transmission and distribution pipelines], the privatised monopoly responsible for the gas pipe network. New safety procedures, approved by the health and safety executive (HSE), had been introduced instead.....

Transco has pleaded for a different approach [to price regulation]. "Economic regulation has been dominant," it says in submissions to Ofgem. "Structural changes to promote competition have been encouraged, so far with little consideration of the potential trade-offs against operational integrity and safety. In future a different view may be appropriate, which broadens the focus to a wider definition of customer value - a balance of economic efficiency, reliability, safety and environmental benefits."

Unfortunately, the lessons learned from the experiences in the UK have not been heeded by Australian regulators and some pipeline owners.

The cost based building block approach for the derivation of access pricing for gas pipelines (haulage tariffs), which has been cemented in place by the current version of the Code and its implementation by regulators provides signals that are contrary to good engineering, public safety and prudent operating practices. The building block approach also stifles innovation.

There is an assumption by regulators, and those upstream and downstream parties who comment on the development of Access Arrangements under the Code, that they know more about the detail of good and prudent operations of pipelines than the pipeline owners and operators. For example, in the ACCC's Final Decision on GasNet's Access Arrangement in November 2002, BHP Billiton said:

"there is clear evidence that GasNet has overstated its future opex needs and the ACCC needs to address this"⁸.

In the same Decision, ACCC reported that Amcor and PaperlinX asserted that:

*"GasNet's operations and maintenance cost claims are significant and that these claims have been attributed to uncoded increases in staffing, pigging and other items. It is argued that no reasonable information pertaining to past operations and maintenance expenditure has been made public which would allow users to confirm that the cost claims for the next period are fair, reasonable and efficient. It is stated that the ACCC must reject GasNet's ambit claims and must apply an appropriate efficiency saving factor, consistent with the savings clearly achieved in the first access arrangement period."*⁹

The Energy Users' Coalition of Victoria made much the same points, but its comments, together with those of BHP-Billiton and several others were partially discounted by ACCC in respect of operating and maintenance costs:

"The Commission considers that the operations and maintenance costs proposed by GasNet for the second period, subject to the amendments noted above [rejection of costs of Longford litigation, reduction in gas measurement technology costs, reduction in insurance costs], are not inappropriate..... and are

⁷ Ibid.

⁸ ACCC, *Final Decision GasNet Australia access arrangement revisions for the Principal Transmission System*, 13 November 2002, p 130.

⁹ Ibid. p. 129

consistent with the operational and technical requirements necessary for the safe and reliable operation of the pipeline...”¹⁰

The WA Office of Gas Access Regulation (now WA ERA) ultimately adopted a similar approach in its decision on the Dampier to Bunbury Natural Gas Pipeline (DBNGP). It was highly critical, and questioned the veracity of the information provided by Epic Energy on “non capital costs” or operating and maintenance cost. However, WA ERA ultimately accepted Epic Energy’s cost figures, with the proviso that Epic must provide Key Performance Indicators for all segments of its operating and maintenance costs.

This latter requirement has inherent dangers, since pipeline regulators will attempt to compare pipeline on pipeline KPIs across Australia, despite significant differences in pipeline design, age, operating pressure, material qualities, environment, number of compressors and coating quality. All these factors have considerable bearing on operating and maintenance costs. Operating costs can also be affected by the operating mode – whether the pipeline is operated by a “system operator” with no responsibility for minimising operating costs, such as in Victoria where market carriage applies, or in circumstances where the pipeline is operated by the owner (contract carriage) who is most concerned with efficient operation.

The operation and maintenance of high pressure, long distance natural gas pipelines requires compliance with a plethora of statutory requirements associated with the management of safety and risk. Compliance with the Australian Standard for natural gas, AS2885, *Pipelines – Gas and Liquid Petroleum Parts 1 – 3* is specified by all Australian jurisdictions for the design, construction and operation of natural gas pipelines. This is a requirement of all Australian jurisdictions under the *CoAG Competition Policy Agreement – Gas* (p.73).

From this requirement stems a large number of obligations on the pipeline owner. Epic Energy has listed its obligations in South Australia in respect of the Moomba to Adelaide Pipeline. These were reported in the ACCC’s Final Decision in respect of the *Access Arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System*, 12 September 2001, p 76:

Epic’s regulatory obligations are included in the following documents:

- Petroleum Act - SA 1940
- Relevant Pipeline Licences
- AS 2885 - Pipelines - Gas and liquid petroleum

Epic’s compliance is monitored by the Department of Primary Industries and Resources, South Australia and the following requirements are provided for:

- Safety Risk Assessment - report to the Minister every 5 years.
- Risk Analysis, Environmental - report on measures proposed in case of a leak to the Minister every five years.
- Procedure for Safe Operation and Security - Submit operating and emergency procedures to the Minister every five years.
- Emergency response drills - to be carried out every two years with a report to the Minister.
- Fitness for Purpose - report to the Minister every 5 years.
- Submit an annual operating report to the Minister.
- As constructed drawings - submit drawings on alterations and modifications to the Minister within 30 days.

Epic has given the responsibility of monitoring compliance with these requirements to a senior engineer.

Epic has established a Safety, Quality and Environmental Management System to assist in complying with these requirements. This has been certified to AS/ISO 9001 (Quality) and AS 14001 (Environmental).

Epic is working towards obtaining certification for its Safety systems as well.

Procedures and work instructions include:

- Safety
- Emergency response
- Operations and maintenance, and

¹⁰ Ibid. p 141

- Environmental management.

Meeting these obligations requires a high level of professional and engineering skills, but the issue is not that of only the meeting of certain statutory requirements. The Australian Standard for pipelines requires that the “Operating Authority” or pipeline owner must have design, construction and operating staff who possess very high levels of professional skills such that they are able to manage all the risks to which a pipeline system might be subjected.

Pipeline owners are facing a dilemma caused by Regulators, such as ACCC and WA ERA, which have cut rates of return and lowered initial capital bases to such an extent that some pipeline owners are facing insolvency. In these circumstances, pipeline owners turn to the only “controllable” cost left to them by the regulator – the operating and maintenance cost. Reductions in operating and maintenance cost have a short term benefit and do not appear to affect the safety and reliability of a pipeline system for some years. Hence they are targets for cost reduction. There is ample evidence that the Australian pipeline industry has reduced staff numbers and skill levels below what is considered prudent by qualified and experienced industry observers such as the authors of this submission. We referred to a paper published by Kimber on this subject earlier¹¹.

Cost reductions that affect that skills base essential for the safe and reliable operation of hazardous facilities – pipelines fall into this category – can have serious commercial and nationally significant economic implications. One can only refer to the losses to the Victorian and Australian GDP as a result of the failure of gas supply from the Longford gas processing plant, and more recently, the failure of Santos’ Moomba gas processing plant. The Royal Commission into Longford ascribed a large proportion of the blame to the removal of appropriately skilled and experienced engineers from the Longford. – see above.

This process of cost reductions has also impacted training and development of professional and technical staff. Pipeline companies are unwilling to recruit recent graduates and commit to spending many years of training and prefer to use the services of consultants. However, cost pressures on consulting companies have made it impossible for them to train and develop professional and technical staff. So pipeline companies and consultants suffer the same problems. The lack of training and professional development in pipeline companies means that they are not, as they once were, a source of skilled staff for consulting companies and the rest of industry in Australia.

These cost pressures have their genesis in the interpretation of the Code by regulators. It might be asserted that a perverse outcome would be that regulators are less concerned about the quantum of capital expenditure than the allowable rate of return. Hence there may be an opportunity for “gold-plating” by pipeline companies, with consequently higher capital cost. However, our experience in Australia is that pipeline owners and their financiers wish to minimise their capital at risk, given that a regulator is likely to strike a lower than acceptable rate of return based on the pipeline’s revenue risk exposure.

It follows that the current regulatory regime provides strong incentives for pipeline proponents to:

- minimise capital cost
- minimise design time
- arrive at financial close prior to proper analysis of technical and construction risks
- accept design and construct bids on lowest price without regard for quality or compliance with the required engineering standards
- design the pipeline to accommodate only foundation contract loads, where revenue is secure.

¹¹ Kimber M.J., *How Safe & Reliable are Our Pipelines?*, The Australian Pipeliner, November 2003

There will be no change from these outcomes in the transmission pipeline industry because the diminishing number of qualified and experienced pipeline owner companies is being replaced by banks and superannuation funds who rely, somewhat unwisely, on the few specialised, but under-resourced and often insufficiently experienced pipeline engineering companies:

In summary:

- There is a finite (and small) pipeline engineering market
- There are 2 or 3 national engineering companies competing for the work through 8 or 10 capital city offices, none of which is not large enough to hold the appropriate experience base
- The pipeline developers view this “expertise” as being available in the location where they live, and buy on price, not experience
- The pipeline developers hold back work that could be undertaken by engineers in training – limiting the engineering company to basic documentation
- This lack of integration means that each component of the development team work in isolation – resulting in a sub optimal solution
- The current fashion is a design-construct approach where there is inadequate time for the engineering activities to be properly undertaken to the extent that they are required in AS 2885.
- Pipeline design, construction and operation are not being implemented to the highest standards envisaged by AS 2885 in the statement from that Standard, which states:

The purpose of the AS 2885 series of Standards is to ensure the protection of the general public, pipeline operating personnel and the environment, and to ensure safe operation of pipelines that carry petroleum fluids at high pressures.

The AS 2885 series of Standards achieve their purpose by defining important principles for design, construction and operation of petroleum pipelines. The principles are expressed in practical rules and guidelines for use by competent persons and organizations. The five fundamental principles on which the AS 2885 series of Standards are based are as follows:

- (a) A pipeline shall be designed and constructed to have sufficient strength and ductility to withstand all identifiable forces to which it may be subjected during construction, testing and operation.
- (b) Before a pipeline is placed into operation it shall be inspected and tested to prove its integrity.
- (c) Important matters relating to safety, engineering design, materials, testing and inspection shall be reviewed and approved to a responsible entity, referred to as the operating authority. The responsible entity shall, in each case, be defined.
- (d) Operations and maintenance shall provide for continued monitoring and safe operation of the pipeline.
- (e) Where changes occur in or to a pipeline, which alter the design assumptions or affect the original integrity, appropriate steps shall be taken to assess the changes, to ensure continued safe operation of the pipeline.

Where the Standards do not provide detailed requirements appropriate to a specific item, the fundamental principles set out above and the principles and guidelines set out in the Standards are the basis on which an engineering assessment is to be made. Specific requirements in the Standards do not replace the need for appropriate experience and engineering judgement.

This embodies the Standard’s requirement that a petroleum pipeline be designed, constructed and operated by competent people, provided with sufficient time to analyse the problems, develop the solutions and apply them through all phases of the pipeline – doing a pipeline project in record time may mean that it has not been done in compliance with AS 2885.

The regulatory environment stifles innovation, since innovation is risky. Rates of return on pipelines do not match the current non-diversifiable risk levels inherent in ownership of most Australian pipelines, so pipeline owners and developers are not willing to increase their risk exposure by using innovative – and cost-saving – technology. The Australian pipeline industry has a robust research and development program¹², but its output has not been widely applied because pipeline owners, and, more importantly, their debt and equity providers, see its application as too risky, when added to commercial regulatory risk.

Australia has no undergraduate or post graduate courses specifically devoted to the range of skills needed to be a pipeline engineer. The schools of petroleum engineering in several Australian universities do not provide the appropriate skills. Nor do graduates from these schools move into pipeline engineering, since as a result of regulatory and other commercial pressures, salary levels in pipeline companies and consultants do not match those in the upstream petroleum sector.

One of us, Fletcher, is in the process of developing a new pipeline welding technique that will increase pipeline construction productivity by a large margin and provide improved quality and integrity – hence reduce construction costs – but the industry is unwilling to use the technique, since it perceives the new technology as an increased element of risk. Fletcher's company has received federal and state government grants for the development of the process, and there is recognition by both Australian and international pipeline experts that the technology is sound. However, unless pipeline owners, and their sources of finance, are permitted some risk margin, it is doubtful that the cost saving, Australian developed technology will find application to our local pipeline industry.

3 THE CODE STIFLES REGIONAL DEVELOPMENT

The Code and the philosophy it represents does little for regional development in Australia. In an era when governments owned gas and electricity utilities, transmission systems for both forms of energy were extended to many communities outside capital cities and major regional centres. There are few locations in eastern and southern Australia where electricity is not supplied via the national grid and the government owned corporations, such as the Gas and Fuel Corporation and the Pipeline Authority built gas transmission lines to serve large country regions in Victoria and New South Wales. Since the Code was introduced in 1998, as far as the authors are aware, no other country region other than Mildura has been supplied with gas in South Australia, Victoria, New South Wales or Queensland, except incidentally through the construction of a major transmission line, such as the Eastern Gas Pipeline. Coverage of the Berri to Mildura pipeline was revoked on 20 September 2001, which suggests that the application of the regulatory and competitive tender processes were inappropriate.

We are of the view that the Code offers no incentive for regional development pipelines to be built. Such pipelines have the following characteristics:

- small market
- dependent on regional industries – often based on primary production
- high risk
- comparatively low capital cost
- target delivered gas price must be less than alternatives, such as bulk LPG and diesel

There may be a strong public interest case for regional pipelines connected to existing transmission pipeline systems to be treated as a system extension and tariffs set by means of a “rolled-in” approach. However, the precedent set by the ACCC would appear to require a “stand-alone” approach whereby the cost-based building block process is used on the pipeline extension in

¹² Kimber M.J., *The Australian pipeline research program – outcomes and the future*, Australian Pipeline Industry Association Annual Convention, 26 August 2003

isolation. Perhaps the most serious instance of this approach was that adopted by the ACCC in the case of the Central West Pipeline between Marsden and Dubbo in NSW. This decision made pipeline owners very wary of these “thin” pipelines and stopped the on-going development of an extension from Dubbo to Tamworth (“Central Ranges Pipeline”).

The ACCC continues to “talk up” its decision on the Central West Pipeline in NSW for allowing a modest increase in WACC and an amended depreciation schedule, each of which was purported to recognise the risk to pipeline proponents in the development of regional pipeline. The ACCC’s heavy hand added significantly to the cost of the proponents and prevented them from going on to build the Central Ranges Pipeline. Ultimately, the local councils asked ACCC to use the Code’s process of competitive tendering for this pipeline. We understand that the successful bidder is undertaking due diligence and if this proves satisfactory, will proceed to build the pipeline. With questions surrounding an ethanol plant at Gunnedah, the likelihood is probably low.

The Code’s competitive tender process was also used for a pipeline to the Swan Hill region in Victoria (Loddon Murray Gas Supply Group). Again this process was bureaucratic, very expensive for the local council proponents, time consuming for ACCC, and, in the end, unsuccessful.

In its Draft Report the Commission said, in respect of the competitive tender process¹³:

“Many of the competitive tenders conducted under the auspices of the Gas Code have failed to produce a satisfactory outcome. This appears to be partly a result of deficiencies with the Gas Code’s competitive tendering provisions. In particular, these provisions appear to be inflexible, costly and time consuming; and the focus on the lowest cost bid might not be appropriate for some projects where other considerations are important, such as the timing of a distribution network’s rollout. However, other factors might have contributed to these failures, including projects lacking underlying commercial viability and the restrictive nature of exclusive franchising arrangements.”

One of the Treasurer’s Terms of Reference for the PC’s enquiry into the Gas Access Regime referred specifically to regional development, but, apart from reference to the “public interest test” in the coverage criteria, little mention was made by the PC, or in submissions, of regional development. The ACCC and NCC suggested¹⁴ that “*environmental considerations, regional development and equity (ACCC and NCC 2002, p. 22)...may be in conflict with competition policy and the principle of economic efficiency employed in the objects clause.*” and “*non-economic objectives may not have measurable outcomes, which would adversely affect regulatory accountability.*”

In the same context¹⁵, “*the Victorian Department of Infrastructure noted that a Victorian Government objective was to ensure environmentally sustainable energy supplies for all Victorians at affordable prices. In the context of gas services for residents in regional and rural areas, the Department of Infrastructure stated:*

It is also important that the [Gas Access] Regime facilitate governments to support the extension of natural gas networks to towns that may not be commercially viable, but where a government considers that wider benefits may flow from such a project, and justify government assistance. (sub. 71, p. 3)”

In response to these statements, the PC stated¹⁶: “*In its review of the national access regime, the Commission noted that income distribution objectives should be addressed, not by access regimes, but an instrument specifically targeting the objective:*

Indeed, explicit pursuit of broader distributional goals through an access regime could be inconsistent with the efficiency objective of part IIIA. For instance, if a regulator attempted on distributional grounds to set low access prices to assist particular groups of consumers, it could have adverse (short and long term) effects on efficiency. Yet, by using a more targeted instrument, such as budget-funded community service obligations, selected groups of consumers could be assisted without those deleterious impacts. (PC 2001c, p. 135)”

We agree with the Commission’s views, but would take a much more pragmatic view of the ways in which a regulator could manage price setting for extensions of transmission pipelines to regional

¹³ Productivity Commission, *Draft Report on Review of the Gas Access Regime*, December 2003, p.240

¹⁴ *Ibid.* p 153

¹⁵ *Ibid.* p 153

¹⁶ *Ibid.* p 153

areas for development. That is, instead of applying the “system-wide benefits test¹⁷” the regulator should address the impact such an extension would have on the overall tariff – that is, adopt a more liberal view on rolled-in tariff setting. Such an approach is applied to the price of postage on a standard letter and local telephone calls throughout Australia.

The Code could be amended by agreement of the jurisdictions to allow some flexibility of, say, plus 10% in regulated transmission tariffs for interconnected transmission lines to allow for extension to regional areas nominated by a jurisdiction. A 10% increase in transmission tariff may affect the delivered price of gas for a commercial user by around 1%.

We recognise that deviations from the classical economic principles that ACCC attempts to implement may give rise to confusion and criticism that these changes could be seen as social engineering. However, Governments must recognise that under the current version of the Code, regional development by extensions of the natural gas transmission pipeline network will not be possible and no pipeline owner will countenance them.

The process by which the rolled-in tariffs are developed should be transparent and allow Governments, if they so chose, to contribute Community Service Obligation payments, which will be made public by the Budget process.

4 CONSISTENT ENGINEERING STANDARDS PROMOTE ECONOMIC EFFICIENCY

Despite agreement between all nine jurisdictions in the Competition Policy Agreement – Gas (p. 73) that: “*In relation to free and fair trade in gas the Council:..... agreed to adopt AS 2885 to achieve uniform national pipeline construction standards by the end of 1994 or earlier*”, there is a great deal of evidence that all jurisdictions except South Australia have demanded, or plan to demand, additional requirements to those defined by Australian Standard AS2885 *Pipelines – Gas and Liquid Petroleum*. These additional requirements, particularly in Western Australia add measurably to the capital cost for no measurable increase in safety or reliability of the transmission pipelines in that state. WA has introduced a requirement that each component of a pipeline design and construction be subjected to independent “validation” – a requirement that places a legal responsibility on the validator that is not a requirement of any Australian Standard, or to our knowledge of any other jurisdiction in the world. WA has a requirement for risks from a pipeline to be quantified in a location where there are no consequences, and where the data used to derive that quantified risk are clearly invalid. No other State regulator has this requirement.

CoAG introduced the requirement for a common standard for pipeline engineering in 1997 because it recognised that a plethora of jurisdictional standards were causing increased costs for pipeline design, construction and operation and hence adding to gas transmission prices. There was also recognition that differing engineering standards across jurisdictions could result in some restraint of trade and could possibly favour government owned corporations.

Each jurisdiction has variously legislated to require the implementation of Australian Standard AS2885, and all but South Australia now insist on additional requirements that certainly do not comply with the spirit of the Competition Policy Agreement – Gas and have the effect of deterring investment.

As part of this review of the Gas Access regime, the PC may consider it appropriate to enquire as to the effect of this lack of compliance with the Competition Policy Agreement – Gas. The authors, all of whom have an influential role in maintaining the quality of the Australian Standard AS2885 *Pipelines – Gas and Liquid Petroleum*¹⁸ agree with an industry-wide view that the intent of CoAG

¹⁷ National third party access code for natural gas pipeline systems S8.16(b)(ii)

¹⁸ Venton – Chairman Standards Australia Committee ME/038 – the peak national committee having responsibility to develop and update AS2885 and Chairman Committee ME/038.1 the national committee for the development of detailed engineering for the management of safety and risk. Fletcher - Chairman Committee ME/038.2 the national committee for the development of detailed engineering and risk management for pipeline welding. Kimber – Chairman

in 1997 should be restored, and that AS2885 should be the single and sufficient standard for the design, construction and operation of natural gas transmission pipelines.

There may be a good case to consider the inclusion of a role for a national technical regulator body for transmission pipelines, in the same way that the jurisdictions have determined that economic regulation can be implemented more consistently and at lower cost by the National Energy Regulator, agreed to at the December 2003 meeting of the Council of Energy Ministers

The authors would be pleased to expand on any of the matters discussed above, should the Productivity Commission require it.

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APIA Research and Standards Committee that directs industry funds to research for development of AS2885 and improvement of cost efficiencies of transmission pipelines.