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Mr Mike Buckley
General Manager, Network North Branch, AER
23 Marcus Clarke Street
CANBERRA ACT 2601

Clarifications following the round-table discussion of Jemena's access arrangement proposal (2010-2015) tariffs and tariff structures

Dear Mr Buckley,

Jemena Gas Networks (NSW) Ltd (**JGN**) appreciates the recent round-tables on both Jemena's terms & conditions and tariffs that the AER has recently organised.

At the 11 December 2009 round-table on JGN's access arrangement (**AA**) tariffs and tariff structures, there was some discussion of JGN's proposed pricing structures and their relationship to the Short Term Trading Market (**STTM**).

In April 2009, JGN commissioned an independent expert report by Geoffrey Swier as part of its application to the National Competition Council for reclassification of the southern and northern trunks. One of the matters that this independent expert report considered and concluded upon was the definition of the STTM market. This definition comprised a single retail market covering Sydney, Newcastle, Central Coast and Wollongong. Mr Swier's report is attached to this letter for your reference.

JGN would like to take this opportunity to reiterate that, consistent with the single market definition of the STTM, JGN's proposed pricing structure will best support the current and foreseeable development of the STTM and best mitigate the need for future price changes as the STTM grows.

Restructuring the former trunk component of JGN's demand tariffs, which accounts for approximately 2.7 per cent of JGN's revenue, allows JGN to recover its trunk costs in a way that is consistent with the STTM hub arrangements and market definition now and into the foreseeable future.

JGN also notes that the STTM is an MCE policy initiative intended to deliver significant efficiency benefits to the wholesale gas price and to decisions for investment in gas production.

Short-term trading between market participants provides greater flexibility to respond to changes in supply and demand improving supply reliability¹. Any assessment of JGN's proposed pricing structure and the network affects of accommodating this reform must undertaken with the total supply chain benefits in mind in the light of the National Gas Objective.

If you have any questions regarding this submission please contact me on (02) 9270 4512 or sandra.gamble@jemena.com.au

Yours Sincerely,

A handwritten signature in black ink that reads "Sandra Gamble". The signature is written in a cursive, flowing style.

Sandra Gamble
Group Manager Regulatory
Jemena Limited

¹ MCE Statement on Principles for Gas Market Development, Dec 2004, See <http://www.ret.gov.au/Documents/mce/documents/FINALMCEStatementonGasMarketPrinciples20041222181640.pdf> at p3

Application by Jemena Gas Networks to the National Competition Council for Reclassification of Transmission Assets

Independent Expert Report prepared by Geoffrey Swier

17 April 2009

1. Qualifications

1. I am a Director of Farrier Swier Consulting a utility consulting firm based in Melbourne. I have worked extensively in the restructuring and economic regulation of the gas, electricity and water industries in Australia, New Zealand and Asia. I led policy work for the restructuring of the Victorian gas industry, and was closely involved in the implementation of the Victoria competitive gas market and establishment of VENCORP. I have been a director of VENCORP (1999-2001). Previously I have been a member of the Australian Energy Regulator and an Associate Commissioner of the Australian Competition and Consumer Commission (ACCC). I have an M.Com in Economics. My curriculum vitae is attached to this statement.
2. This statement is an expression of my independent expert opinion. I have read and agreed to be bound by the guidelines for expert witnesses in proceedings in the Federal Court of Australia. I declare that Jemena Electricity Networks is a client of Farrier Swier Consulting in relation to matters unrelated to the current matter. I am not acting under any other current engagement or retainer to Jemena Gas Network Pty Ltd.

2. Matters Addressed in the Statement and Summary of Conclusions

Matters Addressed

3. Jemena Gas Network Pty Ltd (the service provider) owns and operates three² interconnected covered pipelines that serve the Sydney, Central Coast, Newcastle, Wollongong and adjacent areas in New South Wales:
 - Wilton to Newcastle transmission pipeline (Northern trunk)
 - Wilton to Wollongong transmission pipeline (Southern trunk)
 - JGN NSW Distribution System
4. Prior to the new national energy regime the whole JGN system has been treated as a distribution network³. This resulted from a series of derogations by the NSW Government. No elements of JGN's NSW network have previously been classified as transmission pipelines for the purpose of economic

² The JGN Central West Distribution System is also a covered pipeline in New South Wales. It is not interconnected with these pipelines and is not relevant to this report.

³ Briefing Paper for Informal NCC Discussions 19 March 2009, Jemena

regulation. In its previous access arrangement (as AGL Gas Networks(AGLGN)), the Independent and Regulatory and Pricing Tribunal (IPART) allowed all ⁴ JGN's pipelines to be combined under the one access arrangement with AGLGN keeping separate capital bases each pipeline.

5. Following enactment of the new National Gas Law (NGL) the Northern trunk and Southern trunk (the Trunk pipelines) are deemed to be transmission pipelines.
6. JGN plans to make an application to the National Competition Council (NCC) to reclassify the trunk pipelines as distribution pipelines⁵. In making a reclassification decision the NCC must have regard to (a) the national gas objective and (b) the pipeline classification criterion.
7. The Ministerial Council of Energy⁶ has endorsed recommendations to establish a Short Term Trading Market (STTM) initially for Sydney and Adelaide. The STTM has significant implications for the gas market.
8. JGN is currently preparing its submission for its next Access Arrangement period starting 1 July 2010. The STTM is expected to comment at this time also.
9. In this context I have been asked the following questions

Question 1.

Assess whether the primary function of the Wilton to Newcastle (Northern Trunk) and Wilton to Wollongong (and Southern Trunk) pipelines is to reticulate gas within a market (which is the primary function of a distribution pipeline in accordance with s13(1)(a) NGL) or alternatively is to convey gas to a market (which is the primary function of a transmission pipeline in accordance with s13(1)(b) NGL.

Question 2.

Assess whether reclassification of the pipelines would be consistent with the National Gas Objective, and specifically, the factors the NCC may consider in taking the National Gas Objective into account. This should include whether the change in classification is likely to have any effects on the efficiency of pipeline access or the operation of gas markets through changing the obligations to which the pipeline's service provider is subject. Also consider that where a change in pipeline classification diminishes the rights of third parties in a manner inconsistent with the national gas objective, the Council may refuse to reclassify the pipeline.

10. The scope of my assessment is confined to the relevant economic matters as they relate to the design and operation of the relevant pipeline systems and the broader gas market and does not consider technical factors that are relevant to reclassification.

⁴ Including Central West

⁵ The application will be in accordance with the process for reclassification set out in Chapter 3, Part 5 of the NGL Act; the pipeline classification criteria S129 (3) of the NGL; the rules for a reclassification application (s131 of the National Gas Rules 2008) ; and draft [pipeline] reclassification guidelines prepared by the NCC.

⁶ On 29 April 2008, the MCE decided to proceed with the establishment of A Short Term Trading Market and agreed that VENCORP would project manage the establishment of the market in consultation with the Gas Market Leaders Group.

Summary of Conclusions

Answer to Question 1

11. The relevant market is a single market for retail supply of gas within the region connected by the Northern trunk, the Southern trunk and JGN NSW Distribution System to which they interconnect. The primary function of the Northern and Southern Trunk pipelines are to reticulate gas as part of an integrated distribution network within this retail market. This conclusion applies both to the current situation; and the future situation (ie from beginning of the next Access Arrangement period). This conclusion is subject to three assumptions:

- **No material pipeline constraints** – In relation to the current situation, there are no material pipeline constraints. In relation to the future situation, the aim of the STTM is to create an efficient trading hub. The hub should not have material and enduring pipeline constraints. If there were material and enduring pipeline constraints then this could lead to the need for changes to the STTM design. This may have the possible effect of price separation occurring and the emergence of more than one geographic retail market, and consequentially, imply that the appropriate classification of the relevant pipeline connecting retail market should be as a transmission pipeline. JGN advise that there are no capacity constraints on the trunk pipelines at present or in the foreseeable future and that commercial arrangements are in place to manage new loads and avoid material congestion emerging for existing loads.
- **The design of the STTM will ensure all users can access the hub price** – a key design feature of the STTM is that it will ensure gas retailers on behalf of all end users, and directly connected large customer, supplied by the JGN trunk network will be able to access the hub gas price. The publicly available STTM design proposals and JGN's assumptions are consistent with this requirement. However at this stage, the STTM design and the details of the hub delivery points have not been finalised. Further investigation may be desirable to confirm that the final design will be capable of reasonably meeting this requirement.
- **No competition for trunk pipelines** - It is assumed there is no competitive market for the services provided by the trunk pipelines. If there was (or could in future be) competition for the services provided by the Northern and/ or Southern trunk pipelines then there could be multiple retail markets emerging due to differences in competition and cost conditions. In this case the relevant parts of the trunk pipeline subject to competition could meet the transmission pipeline classification criteria (conveying gas to a market). However emergence of competition is unlikely given the location, availability and competitiveness of relevant gas sources in New South Wales.

Answers to Question 2

12. Reclassification of the pipelines would be consistent with the National Gas Objective (NGO). The long term interest of customers are promoted as follows

- reclassification is more operationally efficient than if the trunk pipelines need to be operated separately from the JGN NSW Distribution System
 - JGN state that operational separation of the northern and southern pipeline from the NSW Distribution systems would require investments in Trunk Receiving Station Metering, estimated by JGN to cost \$100 million. There appears to be little or no long term benefit to consumers in incurring such expenditure
 - Administratively simpler arrangements to implement pricing for a single transportation service for the entire network
13. The change in classification is not likely to have any effects on the efficiency of pipeline access
- new large users seeking to connect direct to the trunk pipeline are currently able to seek access by negotiated services and JGN expects to continue this in the future
 - the structure of trunk reference tariffs is unlikely to affect the economic decisions of existing large customers of reference services
 - in regard to negotiated services, JGN advise that access and pricing disputes between parties are able to be equally addressed under the law irrespective of whether the covered pipeline is classified as transmission or as distribution
14. The change in classification is not likely to have any effects on the operation of gas markets. JGN are assuming that STTM will replace the current operating arrangements. These new operating arrangements would be implemented regardless of how the trunk pipelines are classified. Also, under the National Gas Law JGN is treated as a distribution business for the purposes of implementing the Bulletin Board. Reclassification would maintain the current arrangements.
15. With respect to differences in rights to users
- Queuing policy: JGN already has a queuing requirement that was included in its last Access Arrangements and it proposes to retain this feature.
 - Spare Capacity register: JGN currently does not publish spare capacity on its network. JGN has arrangements in place to allow new users to connect and utilise the network. JGN is not vertically integrated and has no incentive to hinder making access available to third parties.

3. Background

16. This section outlines background relevant to both questions: the physical and operational characteristics of the JGN Network; and the STTM.

Physical and operational characteristics of the JGN network.

17. The following are key relevant physical and operational features of the JGN network⁷

- There are four points where gas enters the JGN Network through receipt points:
 - Wilton (Moomba to Sydney)
 - Port Kembla and Horsley Park (Eastern Gas Pipeline)
 - Rosalind Park (Sydney Gas)
- The dendritic⁸ configuration of the Trunks involves multiple non custody transfer off take points into the distribution system. I have inspected a map provided by JGN⁹ of the JGN system. I note that there are many interconnection points between the two trunk pipelines and the respective distribution systems.
- Current network and retail market balancing functions are carried out across the Northern and Southern trunks as a single balanced network.
- Current network transportation contracts are built around contract carriage principles.

18. Considerations need also to be given to the potential future development of the network. JGN consider it likely¹⁰ that there will be demand for new receipt points to be established on the Trunk networks to introduce new sources of supply to the market from NSW coal seam methane developments and/ or from interconnection with Queensland pipelines.

19. The NSW energy market has been progressively opened up to competition, giving the choice of gas supplier to all customers from 1 January 2002. JGN's system is the sole provider of gas services to energy retailers and other network users. Contestability in the retail gas market is supported by Retail Gas Market Arrangements that include regulations, rules and procedures.¹¹

20. Figure 1 is a stylized representation of the JGN system and the bulk transmission pipelines. The Bulk supply point where the Moomba to Sydney pipeline (MSP)¹² system connects to the JGN Network is at Wilton. The Eastern Gas Pipeline¹³ connects to the Southern Trunk in Wollongong and also connects at Horsley Park. The MSP and Eastern Gas pipelines are considered competitive pipelines. The Southern trunk and Northern trunk connect at Wilton. There are four main distribution regions

⁷ Letter to Craig Price, STTM Project Director from Scott Martin, Manger Commercial Operations JGN Networks (NSW) Ltd 3 March 2009

⁸ Dendritic means "a branching tree like structure". Concise Oxford Dictionary

⁹ Jemena Gas Networks, Overview Map, Trunk & Primary Mains, Map No: GTE-MA-PL-011 Rev: 0, 18th March 2009 (Confidential)

¹⁰ *ibid*

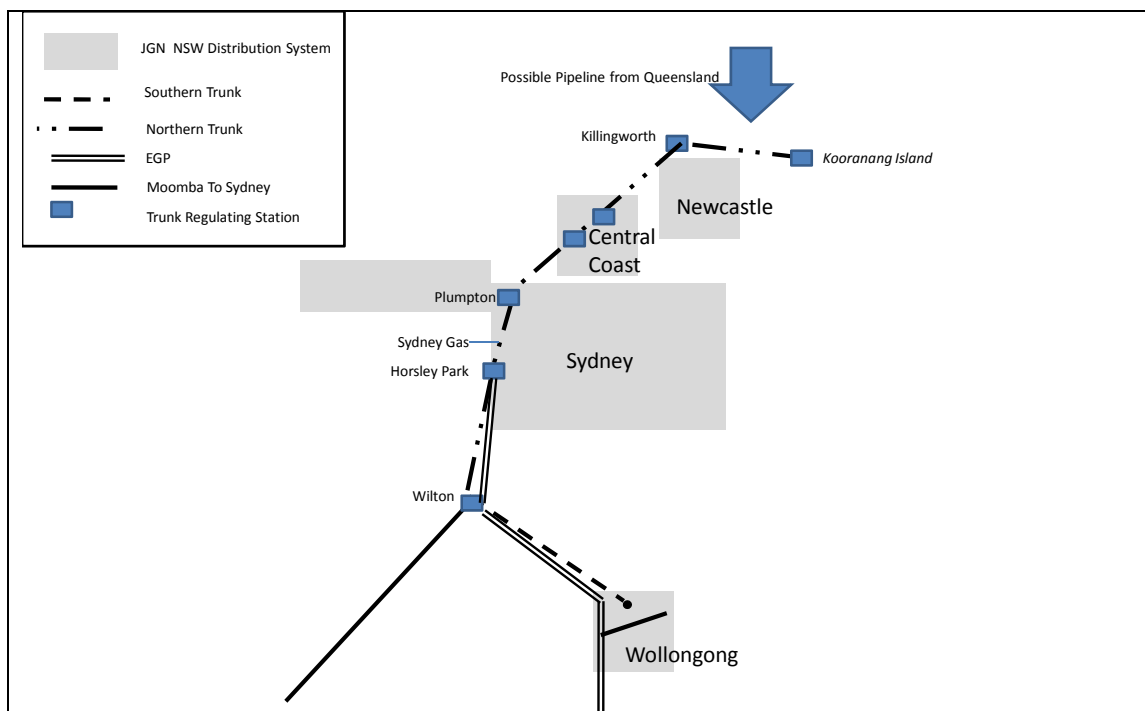
¹¹ The Gas Market Company (GMC) is the operator of the NSW & ACT Gas Retail Market. The Gas Retail Market Business Rules to Support Retail Competition in Gas (Business Rules) are the primary framework for the operation of the NSW and ACT Gas Retail Market. These rules define how the market operates to enable customers to switch gas retailers.

¹² The NCC determined in September 2008 that the services provided by the covered portion of the MSP (between Marsden and Wilton) are to be light regulation services.

¹³ The EGP is an uncovered pipeline

being Sydney, Central Coast, Wollongong and Newcastle¹⁴ and a number of other smaller distribution regions.

Figure 1 Stylized representation of the JGN system



Future Short Term Trading Market (SSTM)

21. As noted, the STTM is expected to commence in 2010. The STTM is a market-based wholesale gas balancing mechanism to be established at defined gas hubs initially in Sydney and Adelaide.¹⁵ An objective of the STTM is to improve economic efficiency by facilitating the short term trading of gas between pipelines, participants and production centers. The STTM aims to contribute to informed decision making by market participants and assist in the allocation of gas to those that value it the most.
22. The market is proposed to set a daily market price at each hub and settle each hub based on the schedules and deviations from schedules. Participants' daily transactions (scheduled trades and unscheduled deviations or variations) will be settled at market prices and billed regularly (probably monthly). VENCORP, the STTM project manager, states the STTM will run once a day, on the day ahead, for each hub. It will use bids, offers and forecasts submitted by participants to determine schedules for deliveries from the pipelines which ship gas from producers to transmission users and the hubs.

¹⁴ This is a simplification – there are other small distribution areas such as mid North Coast.

¹⁵ VENCORP website

23. ICF Kaiser have published a report on the STTM design.¹⁶ ICF Kaiser propose the following delivery points for the New South Wales Hub (Sydney). Sydney Gas also supplies gas to a receipt point at Rosalind.

Pipeline	Delivery Point
Moomba to Sydney Eastern Gas Pipeline Eastern Gas Pipeline	Wilton Horsely Park Port Kembla

24. The ICF report notes that Port Kembla will be studied more closely to determine whether the transmission delivery point should be included or excluded from the hub. JGN advises they are assuming that there will be no change to existing network and retail market definitions which include Port Kembla in the same network section as the other hub transmission delivery points and therefore that Port Kembla will be included in the STTM.
25. Final law, rules and procedures for the STTM have not been finalised and hence the detailed design of the STTM and the identity of transmission delivery points to the hub for Sydney have not been formally finalised.
26. I consider it reasonable to assume that the STTM will operate in manner that is close to that set out in the report prepared by ICF Kaiser, and contemplated by JGN¹⁷ and any changes in the design would not change my conclusions. However this is not certain.

4. Question 1

Assess whether the primary function of the Wilton to Newcastle (WN) and Wilton to Wollongong (WW) pipelines is to reticulate gas within a market (which is the primary function of a distribution pipeline in accordance with s13(1)(a) NGL) or alternatively is to convey gas to a market (in accordance with s13(1)(b) NGL).

27. The classification criteria (s13 (1) of the NGL) is one of two factors the NCC must have regarded to in making a reclassification decision (the other being the National Gas Objective).
28. My assessment is structured as follows. First I set out a framework for analysis taking into account the pipeline classification criteria which requires the relevant market to be defined. Then I outline two market definition alternatives (being the market definition preferred by JGN and a counterfactual if the trunk pipelines are defined as transmission pipelines). Next I consider the economic characteristic of the retail gas market and the economic characteristics of transmission and distribution pipelines. Finally I undertake an assessment of the market definition alternatives.

Framework for analysis

29. S 13 (1) of the NGL sets out the pipeline classification criteria. The central issue for determination in this question is whether the primary function of the WW and WN pipelines are to

¹⁶“A Proposed Design for the Natural Gas Short Term Trading Market for Australia”, prepared for Gas Market Leaders Group ICF International May 21, 2007.

¹⁷ XX

Reticulate gas within a market (s13(1) (a)) in which case they are distribution pipelines (JGN proposed position)

or alternatively

to convey gas to a market (s13(1) (b)) in which case they are transmission pipelines. This is the counterfactual.

30. The meaning of the terms *reticulate* and *convey* are not defined terms on the NGL. The ordinary English meaning¹⁸ of the terms are as follows:

- *Reticulated* means constructed, arranged or marked like a net or network
- *Convey* means to transport; to carry; to take from one place to another

31. A *market*¹⁹ is commonly defined in competition analysis as “the *product and geographic* space in which rivalry and competition take place.”²⁰

32. Further, s13 (2) requires that in determining the primary function of the pipeline that regard must also be had to the whether the characteristics are those of a transmission pipeline or distribution pipelines having regard to a number of factors. The factors I consider within the scope of this advice is limited to the *economic* characteristics of the Northern and Southern Trunk pipelines.

33. Consideration needs to be given to the timeframe over which analysis undertaken. I have considered (1) the current situation and (2) the future situation that will apply from the beginning of the next Access Arrangement period and when the STTM is in place.

34. Therefore the framework for analysis of this question requires

- definition and analysis of the terms *reticulate*, *convey* and, *market*
- assessment of the economic characteristics of the retail market and the distribution and transmission pipelines

Definition of the Market

Product Markets

35. The relevant product markets to be considered are

- A retail gas market - this is a competitive market comprising supply of gas to end users. Retailers and other users operate in a competitive market to acquire wholesale gas at the injection point to the JGN Network, pay transmission charges and pay for distribution services for delivery to end users (“retailing”) or their own use. Gas is physically delivered to consumers through the distribution network.

¹⁸ Concise Oxford Dictionary

¹⁹ It should be note that this is an economic concept of a market and is different from the Retail Gas Market arrangements currently in place to enable retail contestability.

²⁰ Section 4.6, Merger Guidelines, November 2008, ACCC

- A wholesale gas market - This is a competitive market that includes long term contracting for supply of gas, short term trading of gas, and management of risk. The participants in the wholesale market are gas producers and shippers.
 - A transmission services market - This is a competitive market comprising the sale of various transportation services by competitive transmission pipelines (such as the MSP and EGP) to shippers. These services include firm and non firm capacity, and park and loan services.
36. I consider the relevant product market for this analysis to be the retail gas market. As noted above the Northern and Southern trunk pipelines link the bulk receipt points (where gas enters the JGN Network from competitive transmission pipelines) to multiple non custody transfer off take points into the distribution system.
37. The possibility that there is a competitive market for the services provided by the trunk pipelines needs to be considered. At present there is no evidence of competition for the services provided by the trunk pipelines from alternative prospective gas pipelines. Competitive pipeline services appear unlikely given the location, availability and competitiveness of relevant gas sources in New South Wales.²¹
38. Competition in the wholesale gas market occurs in the market for exploration, development and long term contracting of gas supplies. Competition can also occur through short term trading and gas swaps. Once the STTM is established the wholesale market will interact with the retail market through the daily spot price.

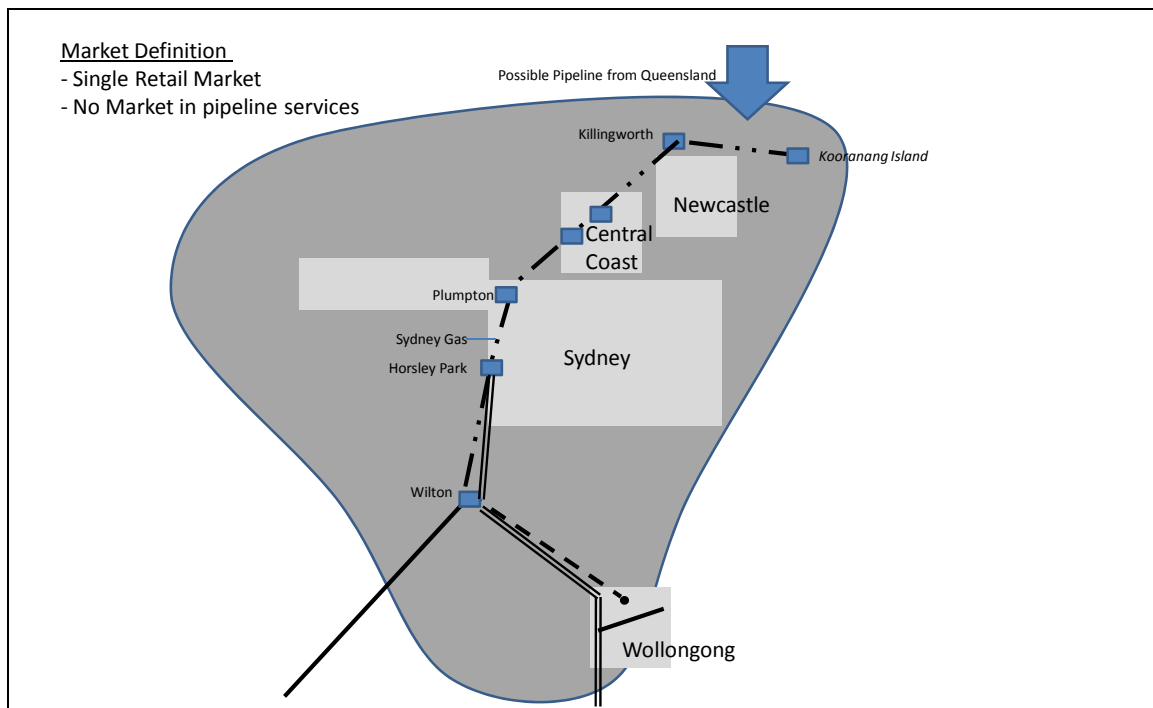
Geographic markets

39. The relevant geographic markets could either be
- A single market for retail supply of gas within the region connected by the JGN. In this case, (consistent with s13(1)(a) of the NGL) the primary functions of the Northern and Southern Trunk pipelines are to reticulate gas as part of an integrated distribution network. This is JGN's proposed market definition.
 - Multiple retail markets that are connected by transmission pipelines (consistent with s13(1)(b) of the NGL).
40. My specific approach is therefore to identify and assess two alternative market definitions:
- JGNs proposed market definition
 - Counterfactual - North and Southern Trunks classified as transmission pipelines with three regional markets.

²¹ Future gas supply to the NSW market is expected to continue from existing sources (Cooper Basin and Victoria), Queensland via a possible new pipeline connection, and small scale Coal Seam Methane projects in NSW. "Australia's Natural Gas Markets: the Emergence of Competition" A Report by ACIL Tasman Pty Ltd to the AER, State of the Market Report, 2008. It seems unlikely that Coal Seam Methane will be appropriately located and be of sufficient size and concentration that it could justify competitive pipelines.

41. The specific counterfactual chosen is to illustrate the key concepts rather than to represent the most likely actual situation. There are a range of other counterfactuals that could be considered.²²
42. JGNs preferred market definition is shown in figure 2. This comprises a single retail market covering Sydney, Newcastle, Central Coast and Wollongong. The Southern and Northern Trunks are considered distribution pipelines reticulating gas within a single market. There are no competitive transmission services offered within the market.

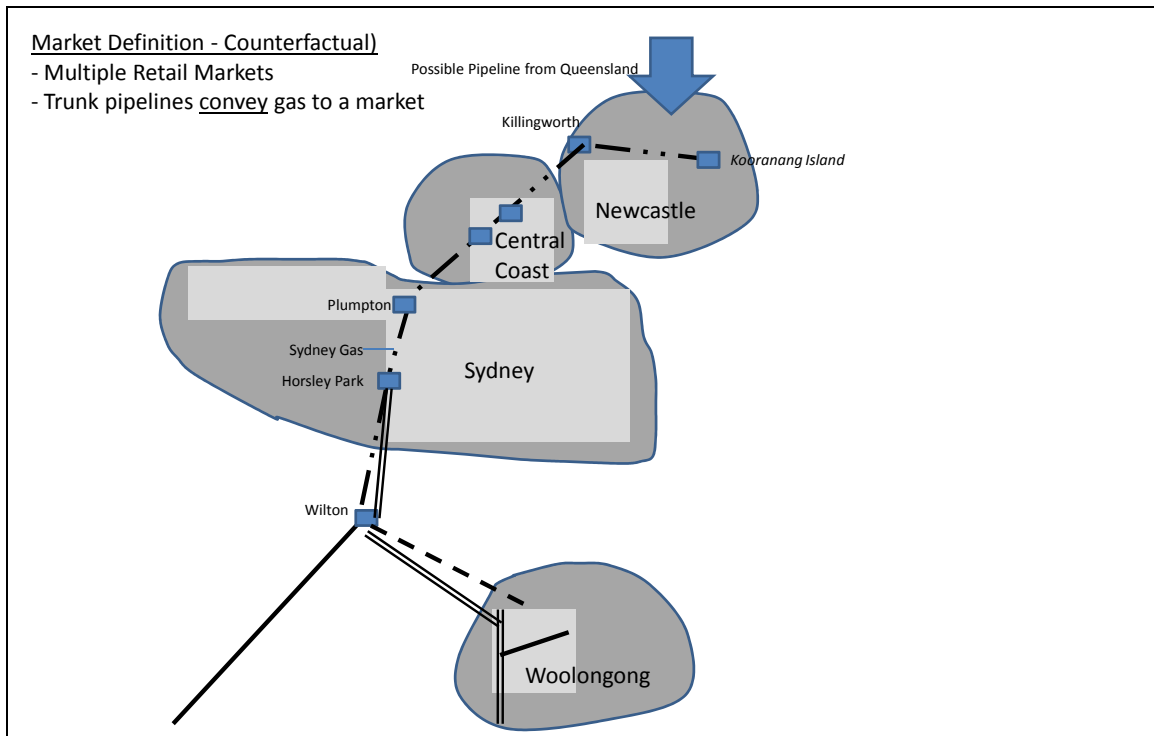
Figure 2 – JGNs proposed market definition



43. The essential feature of the counterfactual is that the southern and northern trunks would convey gas to a market. Wollongong, Sydney, Central Coast and Newcastle retail markets would each be separate with the trunk pipelines conveying gas from upstream to each market.

²² Northern trunk defined as distribution, Southern trunk as transmission; parts of Southern Trunk defined as transmission etc.

Figure 3 Counterfactual



Factors considered in determining market definition

44. The factors I have considered in determining which is the most appropriate market definition are:

- Economic characteristic of the retail gas market
- Economic characteristics of transmission and distribution pipelines

Economic characteristic of the gas market

45. I consider that the key characteristic that determines the geographic configuration of the retail gas market is whether or not there is currently, and will in future be, a uniform wholesale price within the market. If there is a uniform wholesale price then there is a single retail market. If there are different wholesale prices that move independently over time, then there may (though not necessarily be) multiple retail markets.
46. In relation to the current situation, JGN's system is the sole provider of gas services to energy retailers and other network users, and retail contestability is support by the Retail Gas Market Arrangements. All customers have equivalent competitive choice of retail supplier regardless of where in the network they are located. Thus currently there is a single retail market.
47. In regard to the future situation (ie from the beginning of the next Access Arrangement period, whether or not there is a uniform wholesale price is determined by:
- whether or not there are significant capacity constraints
 - the actual design of the STTM, and
 - whether there is uniform network charging across the hub.

Capacity Constraints

48. In relation to the future gas market, the ICF Kaiser report states that (one) key requirement for the Hubs is that "there are no significant capacity constraints within the Hub²³:

The capacity constraint requirement is to make sure that any gas scheduled in the STTM to the Hub through offers or scheduled from the Hub through bids is not constrained from flowing during the gas day. This would put shippers and users at risk for Deviations and create potential gas pipeline and distribution security situations. It would also effectively create non-uniform marginal value of gas within the Hub.

49. I agree with this assessment. If there were significant and persistent constraints on the Northern or Southern trunks that were not economic to remove, then this could lead to geographic price separation in the retail markets, due to differences in costs and perhaps difference in extent of competition. This may require a need for multiple hub points²⁴. The extent of market separation would depend on the extent of congestion and the difference in market conditions between the two markets.
50. If congestion was significant and persistent then this has the potential implications that separate retail markets would form and the appropriate classification for relevant parts of the relevant pipeline should be as a transmission pipeline (i.e. that conveys gas from one market to another).

²³ ICF Kaiser report

²⁴ This situation is similar to the National Electricity Market where price regions are defined reflecting transmission constraints, with the region definition changing as the location of constraints change.

51. In relation to whether capacity constraints exist JGN advise²⁵ as follows:
- a. JGN's current asset management plan explains that there are no constraints which effect current capacity entitlements on either the Northern or the Southern Trunk; and future increases in capacity entitlement for organic growth in the residential and commercial markets are not expected to create any constraint in the trunk network before 2020 at the earliest.
 - b. Capacity planning for industrial customers is carried out in response to requests for increased capacity entitlements for existing and new end customer delivery points. No constraints in the trunk network are foreshadowed to arise from current reference service requests for the industrial market
52. Based on this advice I conclude that
- a. the current retail market would not exhibit price separation due to constraints and is a single retail market
 - b. in future there appears to be no prospect of significant capacity constraints within the STTM Hub
 - c. that in regards to this factor (capacity constraints) there is a single retail market.

Assumptions on final design of STTM

53. JGN have made a number of assumptions about the STTM design and its impact on the JGN. Key assumptions are
- a. The STTM will consider all supplies from the gas market currently supplied from the Wilton, Port Kembla, Horsley Park and Rosalind Park and all withdrawals from the combined Wilton - Newcastle and Wilton – Wollongong network sections
 - b. The STTM will need to allow for connection of new sources of supply
54. As noted the STTM design has not been finalised. I have reviewed JGNs assumptions regarding STTM implementation. While there are a significant number to issues to be resolved (significant issues include definition of legal rights and obligations, liability, cost recovery) there do not appear to be any fundamental conceptual conflicts between the published STTM design proposals and JGNs assumptions.
55. In my experience with the implementation of the Victorian gas market, there may be modifications required to address subtle issues such as those relating to pipeline constraints (if any), market stress and emergency management situations, and accommodating new pipeline connections and gas supplies.

²⁵ See details set out in Appendix D – State of capacity constraint on the Northern and Southern trunk network sections (Confidential)) Jemna Application for reclassification of the Wilton to Newcastle (the Northern Trunk) and Wilton to Wollongong (the Southern Trunk) transmission pipelines

56. I consider it reasonable to assume based on current information that any such modifications would not fundamentally change the basic hub concept as outlined by ICF Kaiser such that it would lead to a change the definition of the market. Further investigation may be appropriate to confirm this.

Network charging implications of STTM

57. The ICF Kaiser report states that the other key requirements for the definition of the Hubs are that pricing is uniform across the Hub:

“The pricing constraint applies to the distribution rates from the pipeline delivery points to the load centers and for each pipelines delivery to delivery point at the Hub. In other words, the cost of delivering gas on the distribution system from all pipeline delivery points in the Hub to a load centre should be the same. Also, the cost of delivering gas on each pipeline from a single pipeline receipt point to all delivery points in the Hub should be the same. The requirement is to assure that the scheduling of bids is consistent with the value of the gas to the shippers and users. At the start of the market, the STTM market clearing routine can make adjustments for different prices at the pipeline delivery points but the ideal situation would be for the pricing to be uniform.”

58. JGN advise that they intend to propose network charges for all reference services in its 2010 Access Arrangement submission using price structures which will no longer depend on the location of the receipt point at which gas enters the network. This will remove price differential between receipt points, consistent with the STTM design.

Economic characteristics of transmission and distribution pipelines

59. The economic characteristics of transmission and distribution pipelines can be understood by considering the policy background to the development of the National Gas Law enacted in 2008.

60. In December 2005 the Ministerial Council of Energy established an Expert Panel on Energy Access Pricing (Expert Panel) to advise on a common approach to revenue and network determination across the energy market. The Expert Panel’s advice has been substantially reflected in the NGL and is a useful encapsulation of how competition analysis has evolved in the gas industry. The Expert Panel description of the primary functions of distribution and transmission is follows

- a. **Transmission** - The primary function Transmission pipelines are to transport gas to major demand centers. “At the highest level the function performed by gas transmission is to transport a bulk supply of energy from production sources to major demand centers (including to large customers directly).
- b. **Distribution-** The primary function of distribution pipelines “is to transfer energy supply from bulk supply points to individual customers”

61. The Experts Panels assessment of the key characteristics of gas transmission and gas distribution is summarised in the following table.

Characteristics of Transmission and Distribution Pipelines

Type of Pipeline	Economic Characteristics	Description
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Transmission Pipelines	Efficient to operate independently	“Individual gas pipelines typically can be operated independently with little loss of overall efficiency” “Network interdependence and externalities are less pronounced for gas transmission pipelines which more typically provide end-to-end services that can be operated independently without loss of efficiency. Thus, establishing means of contestability through tradable rights to pipeline capacity and pipeline-on-pipeline competition is more feasible in the gas transmission pipeline sector.”
	Capacity Rights	“It is typically to assign capacity rights associated with the assets existing and new capacity.”
	User choice between pipelines	“Users can be provided with a choice about which pipeline to use”
	Choice for users over augmentation	“Users can be provided with a choice about whether they wish to use (and contribute to) any augmentation”
	Competition between pipelines feasible	“Ongoing competition between pipelines (i.e. where multiple pipelines serve the same markets) is feasible and market forces can be relied on to play a greater role in deciding when new investment should occur (that is users can be left to contract for their needs and pipelines get built when sufficient capacity in a pipeline will be contracted.”)
Distribution Pipelines	Substantial market Power	“Gas distribution networks have substantial market power to the extent the fuel source is important to users and there are few practical substitutes for many applications. The Victoria gas market is key example of this situation. ²⁶ ”

Source: Expert Panel on Energy Access Pricing

62. A more recent development since the Expert Panel report is the potential for growth in swap contracts due to the increased level of transmission pipeline interconnection between regional markets. Growth in swap contracts could result in the national transmission pipeline system having more of the characteristics of a network than the traditional model of independent point-to-point transmission pipelines. ACIL Tasman notes that the growth of swap contracts could ultimately impact

²⁶ The Expert panel also notes that there are a number of areas where the supply of natural gas has recently been introduced and market power does not exist. Also, even in large gas networks where rates of connection and or average usage is low, then the unit cost of provision of natural gas may be sufficiently high that competition from alternative energy sources provides an effective constraint on market power.

on the viability of pipeline service operators and on new pipeline investment and that new models for paying for pipelines services would be required.²⁷

63. If the market does start to evolve in this way (which at this stage is not clear) it would arguably give further support to the classification of the JGN trunk pipelines as part of a distribution pipeline.

Assessment of market definition alternatives

64. The following table summarizes my assessment of the alternatives for classification.

Factor to be considered	Desirable Characteristics	Assessment	Implication for Classification
Current Retail Market	All customers have equivalent choice	All customers have equivalent choice	Primary functions of the Northern and Southern Trunk pipelines are to reticulate gas as part of an integrated distribution to a single retail market.
Future Retail Market (STTM)	No significant capacity constraints within the Hub	JGN advise no constraints foreseeable future. Based on this advice and assuming that regulatory and commercial arrangements would lead to appropriate investment, it is unlikely that congestion on the trunk pipelines would lead to separation into multiple geographic retail markets on a persistent basis	Primary functions of the Northern and Southern Trunk pipelines are to reticulate gas as part of an integrated distribution network to a single retail market with a common hub price.
	STTM Design ensures all users can access the hub price	It is assumed that the design of the STTM will ensure that gas retailers on behalf of all end users, and directly connected large customer,	Primary functions of the Northern and Southern Trunk pipelines are to reticulate gas as part of

²⁷ “Swap arrangements are potentially valuable because they can minimise the amount of physical transportation required. Savings may also come from avoiding or delaying the need for construction of physical interconnections. While swaps can increase market efficiency by minimising the physical transportation of gas, reduced payments for transportation of gas could ultimately impact on the viability of pipeline service operators and on new pipeline investment. In the extreme, a network could be envisaged in which little if any flow occurs across the system, which instead acts as a large pressure balancing vessel, with physical flow being confined largely to peripheral areas of the network. High levels of interconnection and an active swap market that minimises the need for physical transport of gas therefore imply a move toward a different system of paying for pipeline services, one with a greater focus on paying for the rights to inject or withdraw gas from the system, rather than paying for the right to transport gas through the system.” *Australia’s Natural Gas Markets : The Emergence of Competition A report by ACIL Tasman Pty Ltd, Essay for the Australian Energy Regulator, 2008 State of the Market Report*

		<p>supplied by the JGN will be able to access the hub price. The publicly available STTM design proposals and JGN's assumptions are consistent with this requirement. However at this stage, the STTM design and the details of the hub delivery points have not been finalised. Further investigation may be desirable to confirm that the final design will be capable of reasonably meeting this requirement</p>	<p>an integrated distribution to a single retail market with a common hub price.</p>
<p>Economic characteristics of transmission pipeline</p>	<p>Characteristic of transmission is that it is efficient to operate independently.</p>	<p>Currently the entire JGN network comprising the trunk section and connected sections is managed as a single system²⁸ (from an operational, commercial market perspective. Theoretically, it would be technically feasible to operate the Northern and Southern pipelines separately from the distribution systems, but there would be a cost associated with this and some ongoing loss of technical efficiency²⁹. JGN estimated that it would cost in the order of \$100 m to upgrade its Trunk Receiving Stations to install fiscal metering or custody transfer meters capable of satisfying the relevant measurement standards. There would not seem any public benefit in separation.</p>	<p>No case for moving away from integrated operation of the network or incurring metering costs. Consistent with classification of Northern and Southern Trunks as part of distribution network</p>
	<p>Capacity Rights</p>	<p>No distinct capacity rights are provided for trunk pipelines as distinct from other network transportation. Trunk capacity rights are defined in terms of end customer demand characteristics not aggregated retail portfolio demand characteristics. Current network</p>	<p>While it is not a requirement for transmission pipelines to introduce capacity rights, the absence of capacity rights is more consistent with characteristics of distribution pipeline.</p>

		<p>transportation contracts are built around common contract carriage principles and relationships.³⁰</p> <p>No change in treatment of capacity rights are proposed.</p>	
	<p>User choice between pipelines, competition between pipelines feasible</p>	<p>Users of the southern and northern trunk have choice between EGP and MSP. However no prospect of competitive choice for the services provided by the trunk pipelines.</p> <p>STTM principle of uniform pricing between receipt points will facilitate and ensure full and efficient choice between all pipelines injecting into the network.</p>	<p>Consistent with characteristics of distribution networks and covered transmission pipelines.</p>
	<p>Substantial market Power</p>	<p>The Northern and Southern pipelines have substantial market power³¹</p>	<p>Consistent with characteristics of distribution networks and covered transmission pipelines.</p>
<p>Tariff considerations</p>	<p>Tariff rules need to be consistent with STTM hub design</p>	<p>JGN state that for 2010 Access Arrangement that they intend to propose new pricing structures which will no longer depend on the location of the receipt point at which gas enters the network. This will remove price differentials between receipt points which are consistent with the STTM design principle for uniform pricing. JGN advise that it would be possible to develop appropriate network charges tariffs under either the distribution or transmission tariff rules but that it would be simpler to implement under the distribution tariff rules and provide the administrative benefit of a single haulage reference service.</p>	<p>Northern and Southern Trunks would preferably be classified as distribution pipelines, but classification as transmission would be workable.</p>

5. Question 2

Assess whether reclassification of the pipelines would be consistent with the National Gas Objective, and specifically, the factors the NCC may consider in taking the National Gas Objective into account. This should include whether the change in classification is likely to have any effects on the efficiency of pipeline access or the operation of gas markets through changing the obligations to which the pipeline's service provider is subject. Also consider that where a change in pipeline classification diminishes the rights of third parties in a manner inconsistent with the national gas objective, the Council may refuse to reclassify the pipeline.

Framework

65. In making a reclassification decision the NCC must have regard to the national gas objective:

The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas³².

66. The relevant aspects of the National Gas Objective to consider are price, reliability and security. I consider gas safety and quality are not relevant factors since regulations and technical standards will be applied regardless of pipeline classification.

67. Reclassification of Trunk pipelines as distribution pipeline would be consistent with the national gas objective if: reclassification promoted the long term interests of customer overall compared to the counterfactual; or at least was neutral as compared to the counterfactual (classification as transmission).

Reclassification of the trunk pipelines generally

Operation Efficiency

68. Reclassification is consistent with the Northern and Southern pipelines continuing to be managed as part of a single integrated system. This would be more operationally efficient than if the trunk pipelines need to be operated separately from the JGN NSW Distribution System under the counterfactual. Operational efficiency promotes the long term interests of consumers.

Avoid metering costs

69. Operational separation of the northern and southern pipeline from the NSW Distribution systems would require investments in Trunk Receiving Station Metering, estimated by JGN to cost \$100 million. My understanding is that there would be little or no long term benefit to consumers in incurring such expenditure.

Avoids complex network charging

70. JGN advise that with classification of the trunk pipelines as distribution, it would be administratively simpler to implement pricing for a single transportation service for the entire network. A simpler

process for network charging provides a small benefit to consumers through reduced costs incurred by JGN.

Factors the NCC may take into account

71. This section considers factors the NCC may consider in taking the National Gas Objective into account including whether the change in classification is likely to have any effects on the efficiency of pipeline access or the operation of gas markets through changing the obligations to which the pipeline's service provider is subject. The draft NCC reclassification application guidelines note that where a change in pipeline classification diminishes the rights of third parties in a manner inconsistent with the national gas objective, the Council may refuse to reclassify the pipeline.

Efficiency of pipeline access

72. The change in classification is not likely to have any effects on the efficiency of pipeline access. In regard to reference services, the change in classification should have no material effect on the efficiency of pipeline access because
- a. new large users seeking to connect direct to the trunk pipeline are currently able to seek access by negotiated services and JGN expects to continue this in the future; and
 - b. the structure of trunk reference tariffs is unlikely to affect the economic decisions of existing large customers of reference services because the relative small proportion of total JGN costs and network charges represented by the trunk pipelines.³³
73. In regard to negotiated services, JGN advise that access and pricing disputes between parties are able to be equally addressed under the law irrespective of whether the covered pipeline is classified as transmission or as distribution

Effects on operation of Gas market

74. The change in classification is not likely to have any effects on the operation of gas markets. JGN are assuming that STTM will replace the current operating arrangements. These new operating arrangements would be implemented regardless of how the trunk pipelines are classified. already assume that the JGN is operated as a distribution network
75. Under the NGL JGN is treated as a distribution business for the purposes of implementing the Bulletin Board. Reclassification would maintain the current arrangements.

Third Party Rights

76. I am advised by Jemena that there two relevant issues to consider with respect to differences in rights to users being Queuing Policy and a Spare Capacity Register.

Queuing Policy

77. Under Rule 103 a transmission pipeline must include a queuing policy in their Access Arrangements but a distribution pipeline only needs to include this if the AER directs it to. I am advised that JGN already has a queuing requirement that was included in its last Access Arrangements and that it

proposes to retain this feature. JGN advise that they have a commercial incentive to have a queuing policy as it informs JGN us about demand and therefore investment prioritisation.

78. I agree with JGNs view that it has an incentive to offer a queuing policy. I note also that JGN is not vertically integrated and therefore has no incentive to hinder making access available to third parties.

Spare Capacity Register

79. Under Rule 111 a transmission pipeline must maintain a public register of spare capacity. A distribution pipeline only needs to include this if the AER directs it to. JGN currently does not publish capacity on our network as it has always been treated as a distribution network. As discussed above, JGN has arrangements in place to allow new users to connect to the network and has incentives to provide such services.

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been not been disclosed in this statement.

Geoffrey Swier