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24 August 2012

Steve Bielby
Chief Executive
Gas Industry Company
Wellington

Dear Steve

Review of Transmission Access and Capacity Pricing

Introduction

1. Vector welcomes the opportunity to submit on the Gas Industry Company's (GIC) Panel of Expert Advisers (PEA) Report, *Review of Transmission Access and Capacity Pricing* (the PEA Report), July 2012. Responses to the GIC's specific questions are contained in the Appendix of this submission.

2. No part of this response is confidential and Vector is happy for it to be publicly released.

3. Vector's contact person for this submission is:

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Opening comments

4. Vector believes the PEA Report's "Straw Man Proposal" warrants further consideration, but as one potential option the PEA will consider and consult on.

5. We agree with the PEA's assessment that substantive upgrade of the existing transmission system, e.g. looping of the Northern Pipeline, is unlikely to be economic or efficient for the foreseeable future. This heightens the importance of ensuring efficient allocation (best use) of existing assets.

6. Vector welcomes the PEA Report's acknowledgement of "Vector's current initiatives to improve transparency..."[1] in relation to gas transmission capacity. The Gas (Information Disclosure) Regulations 1997 do not adequately reveal uncommitted transmission capacity. Vector has been engaging with the Commerce Commission, GIC and industry to ensure more useful information provision.

7. Vector's view is that more work is required before the PEA can make firm recommendations on particular policy options or packages that the GIC could reasonably or confidentialy rely on as best meeting its statutory objectives, in particular:

   a. **Objectives:** The PEA needs to ensure it meets the Terms of Reference requirement to provide "An assessment of how well...options would meet the objectives of the Gas Act..." This needs to include both a

[1] Page 7, PEA Report.

qualitative and quantitative assessment of the different potential options the PEA considers.

b. **Problem Definition:** The PEA Report's problem definition blurs the solution with the problem. For example, if the problem is that the "capacity product definition allows grandfathering", by definition, it would follow that the solution is to reduce or eliminate grandfathering. The problem has simply been stated as the inverse of the solution.

   The PEA presents a long list of perceived "problems", some real (e.g. no capacity trading) and some not (e.g. grandfathering and Supplementary Capacity), virtually all of which could be symptoms of a fundamental problem that has not been identified.

c. **Policy Options:** The PEA should not be narrowing the policy options to essentially a single, Straw Man option (with one variation in relation to grandfathering) at this initial stage of policy development.

   Vector does not believe the PEA should be ruling out broader reform of access arrangements, including consideration of other carriage options, such as common carriage or "market" carriage, at this stage.

d. **Legislative boundaries between the GIC and Commerce Commission:** The PEA must consider the boundaries and overlaps between GIC and Commerce Commission responsibilities. The PEA's consideration of this matter, at least as reflected in the PEA Report, has been incomplete so far:

   i. **Gas Transmission Price Path:** The PEA should give further consideration to how any proposals, such as introduction of scarcity pricing, would impact on the Commerce Commission's regulation of gas transmission business (GTB) price paths under Part 4 of the Commerce Act 1986. What is missing, at present, is a discussion of options to prevent scarcity pricing from interfering with Vector's ability to comply with the Commission's gas transmission price paths.

   ii. **Gas Transmission Pricing Methodology:** No mention is made of the Commerce Commission's role in relation to gas transmission pricing.

   The Commerce Commission is responsible for regulation of gas transmission pricing and introduced a set of gas pricing principles as an Input Methodology, under Part 4 of the Commerce Act. This restricts the approach(es) Vector could potentially adopt for gas transmission pricing.

   iii. **Investment:** Both the GIC and Commerce Commission have responsibilities for promotion of incentives to invest in gas transmission. The PEA needs to consider the impact of section 43F(2)(d) of the Gas Act 1992 on gas transmission investment, and incentives to invest, as well as how the overlaps in responsibilities should be managed or eliminated.

   iv. **Information Disclosure:** We acknowledge and commend the GIC for its active engagement with the Commerce Commission in ensuring the Gas Information Disclosure Requirements the Commission is introducing under Part 4 of the Commerce Act will provide the GIC with the information it may want in relation to gas transmission capacity.

Objectives

8. The PEA is seemingly subject to a plethora of different objectives.

9. There is the statutory objectives of the GIC in section 43ZN of the Gas Act:

> The objectives of the industry body, in recommending gas governance regulations under section 43F, are as follows:
>
> (a) the principal objective is to ensure that gas is delivered to existing and new customers in a safe, efficient, and reliable manner; and
>
> (b) the other objectives are—
>
> (i) the facilitation and promotion of the ongoing supply of gas to meet New Zealand's energy needs, by providing access to essential infrastructure and competitive market arrangements:
>
> (ii) barriers to competition in the gas industry are minimised:
>
> (iii) incentives for investment in gas processing facilities, transmission, and distribution are maintained or enhanced:
>
> (iv) delivered gas costs and prices are subject to sustained downward pressure:
>
> (v) risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties:
>
> (vi) consistency with the Government's gas safety regime is maintained.

10. There is also the objectives of the Gas Transmission Investment Project (GTIP) which is to:

- ensure that gas transmission assets are used efficiently;
- establish the need for gas transmission investment; and
- develop an effective pathway for efficient gas transmission investment to take place.

11. Finally, the PEA Report includes a set of overarching objectives:[2]

> Regardless of the form of the access arrangement, the overarching objectives of the regime should be:
>
> - to foster efficient investment in, operation and use of pipeline capacity;
> - to provide current and prospective shippers with confidence that they can access pipeline capacity on fair and reasonable terms;
> - to facilitate competition in upstream and downstream markets;
> - to provide mechanisms for the efficient allocation of capacity either through market or non-market mechanisms;
> - to have regard to pre-existing property rights or contractual rights; and
> - to provide pipeline owners with a reasonable opportunity to recover at least their efficient costs, including a reasonable return on investment.

12. The PEA Report also makes reference to other ad hoc objectives such as:[3]

> The fundamental objective at such times is to allocate capacity to those that value it the highest. A related objective is to create a price signal.

13. The PEA Report's overarching objectives have some overlaps with the objectives in the Gas Act but there is a mismatch and some of the PEA's objectives are not actually objectives. For example, "hav[ing] regard to pre-existing property rights or contractual rights" is not an objective. It is simply something that the PEA should do to as part of its policy development. The PEA should have regard to property rights as part of its transmission work but this is not an objective.

[2] Page 22, PEA Report.
[3] Page 48, PEA Report.

14. Vector believes the PEA should focus on the GIC's statutory objectives. They capture the relevant concepts of ensuring efficiency, minimising barriers to competition, and ensuring incentives to invest in gas transmission. These are more than broad enough to capture any matters the PEA may want to take into account.

15. The PEA will ultimately need to ensure it meets its Terms of Reference by providing "An assessment of how well...options would meet the objectives of the Gas Act..."

Problem Definition

16. Vector believes further work on the problem definition would be beneficial. An assessment of the extent to which current arrangements negatively impact the economy and consumers, and the causes of any such negative impacts, would be a good starting point to understand the market failure and to provide the basis from which to identify a range of possible solutions.

17. Vector has a number of specific observations about the PEA Report's depiction of the problem.

18. First, the primary focus is on how capacity is allocated during periods of peak usage. The issues relating to capacity are potentially wider than this. Efficient use of the gas transmission system (as per section 43F of the Gas Act and bullet one of the GTIP objectives) and efficient allocation of capacity (as per PEA Report overarching objectives) require efficient use and allocation during both peak and off-peak periods.

19. Vector's standard transmission capacity product (Reserved Capacity) provides that owners of such capacity (Shippers) may use it at any time, including simultaneously. The Vector Transmission Code (VTC) requires Vector to allocate transmission capacity rights so as not to exceed the maximum sustainable physical capacity of the relevant pipeline.[4] Determining physical capacity is necessarily based on the potential coincident peak demand on that pipeline. Notwithstanding the definition of capacity rights, to avoid unnecessarily restricting the amount of such rights, Vector considers demand diversity, including by analysing historical offtakes. This ensures security of supply is well maintained, but there are possible adverse consequences:

    a. Shippers may not be able to secure firm capacity to supply new consumers even if the latter do not require firm capacity during the pipeline's peak demand;[5]

    b. under-utilisation of transmission capacity at peak times to the extent that Shippers do not all use their capacity rights;[6] and

    c. that the lack of a liquid secondary market could impact adversely on retail competition and this is something the PEA should consider.[7]

[4] It is therefore implicit that capacity rights will be used.

[5] A Shipper with a large potential consumer who can establish that its offtake will be "counter-cyclical" to the relevant peak demand period may be able to obtain a non-standard transmission contract with an appropriately-defined seasonal capacity profile. Vector has two such agreements currently.

[6] This is not something currently within Vector's control. In any case, Vector sells capacity rights and the VTC assumes that such rights will be used. The relevant Shipper also pays for the capacity, used or not.

[7] We note that efficient access arrangements based on independent trading of point-to-point capacity would be difficult to achieve because markets cannot resolve the physical problem of matching the trade with dispatch hence creating a separation between the financial and physical arrangements. This is why Vector must currently approve any trade of capacity between shippers. This is also a reason why liquidity may be hard to achieve in a purely contract access regime.

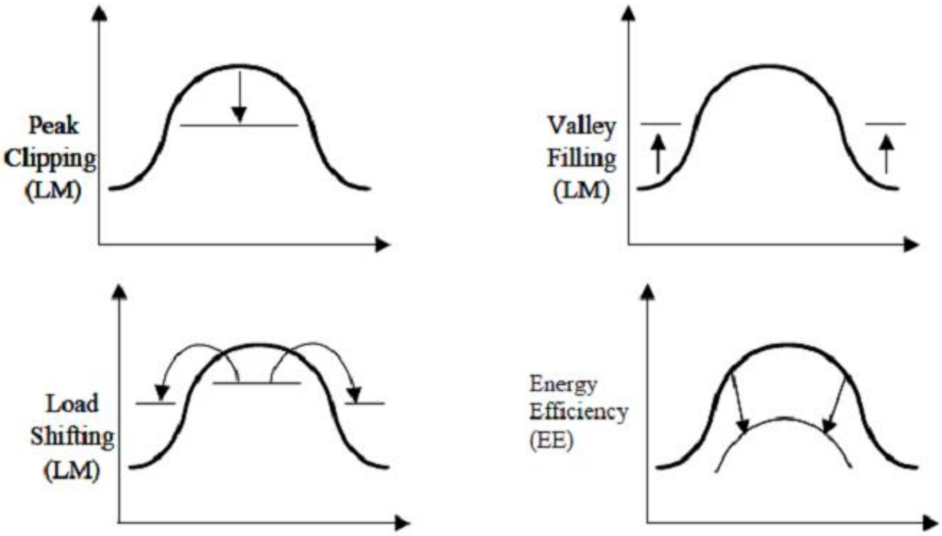
20. While annual capacity fees provide some incentive to find consumers able to use capacity in off-peak periods, the current commercial framework provided by the VTC <u>may nevertheless</u> result in under-utilisation of the transmission system both at peak and off-peak times.[8]

21. It is desirable to promote utilisation of gas transmission capacity during off-peak periods (which may be the majority of the year). This is illustrated by the following diagram, which highlights that:

    a. there can be added benefit to shifting load from peak to off-peak and not just from reducing peak demand;

    b. options that increase consumption during off-peak can have benefits even if peak demand is unchanged; and

    c. options that reduce peak demand but also reduce overall demand can have negative impacts on capacity utilisation.



Source: Kema, draft Report to Vector, 2012.

22. Second, the PEA Report's problem definition confuses the solutions with the problems. It does this in two principal ways:

    a. The Problem Definition section defines the problem as being the gap between the preferred arrangements and the status quo. This cannot be done without defining the solution first.

    b. The problem in various places in the PEA Report is simply described as the inverse of the solution.

23. It is tautological to define the problem as the inverse of the solution. By way of example, if the problem is that the "capacity product definition allows grandfathering"[9] then the solution cannot be anything other than reduction or elimination of grandfathering.

24. The same thing can be said about the "primary problem" that trading is thin on the secondary market.[10] The PEA should ask the questions why there is low uptake and why the market is thin. Without answering these questions it is not possible to tell whether there is a real problem that should be

[8] This outcome is a direct result of a contract carriage regime that attributes capacity rights to users. This could be overcome with a carriage regime that does not allocate capacity rights at all. The PEA does not consider a transition to an alternative carriage regime carriage as an option but it should.
[9] Page 6, PEA Report.
[10] Page 6, PEA Report.

addressed or not.[11] An obvious explanation for the low uptake of Interruptible Agreements is the need for customers to have firm capacity i.e. certainty that the volume of gas they require is delivered at the time they need it at the agreed price.

25. The problem is not necessarily that "capacity product definition allows grandfathering".[12] If there is an efficient mechanism for capacity trading the initial allocation of capacity (grandfathering) may not impact on efficiency of capacity usage. The initial allocation (described as the "primary allocation") may just impact on potential windfall gains from grandfathered property rights. Grandfathering is only likely to create a problem if hoarding is a problem. The PEA has rejected this, expressing the view that "There is not any evidence that hoarding has occurred on Vector's pipeline"[13] or of incentives to hoard.[14] The PEA Report expresses the contrary view that "The opportunity cost of hoarding would also be high at times of constraint"[15] which suggests capacity holders would have strong incentives to sell any unneeded capacity they have during peak periods.

Policy options

26. The PEA Report states that "The PEA has carefully examined the alternative options for addressing the identified issues with the existing access arrangements".[16] The PEA should identify and consult on a broad set of policy options, including the assessment of the options it has considered, as part of its next round of consultation. This should be done before the PEA narrows its review to a preferred policy package or set of options. For example, Vector believes the PEA should consider whether a change in access regime, such as a shift to common carriage or "market" carriage, should be introduced rather than putting this into the too hard basket. This is particularly the case given comments from the PEA Report such as that "shipper vertical separation (achieved through common carriage) is likely to deliver greater competition".[17]

27. The PEA Terms and Reference requires the PEA to "Identify and assess reasonably practicable access regime options and prepare an initial shortlist of preferred market design/access regime options..." This will help ensure the PEA is in a position to recommend particular policy options or a policy package as the best way of meeting the GIC's statutory objectives.

28. While the "Straw Man Proposal" warrants further consideration, Vector has the following observations and comments:

    a. The PEA Report states that "The PEA considers that a "Straw Man" proposal that sets out a coherent set of recommended improvements is preferable to the alternative of listing options for addressing each individual problem identified."[18] Vector recognises policy options can be interlinked, so it does not always make sense to consider different options for different problems in isolation to each other. This does not

[11] Determining why there is low uptake and why trading is thin goes to the heart of whether a market-based trading mechanism should or could be relied on to deliver scarcity price signals or an administered price (that could be more or just as effective or cost lower to implement in this market) should be adopted to signal scarcity instead. The problem could be resolved by ensuring physical capacity is optimally allocated for market conditions on the day, while maintaining system security.

[12] Page 6, PEA Report.

[13] Page 35, PEA Report.

[14] Page 49, PEA Report

[15] Page 49, PEA Report

[16] Page 7, PEA Report.

[17] Page 21, PEA Report.

[18] Page 7, PEA Report.

mean that only a single Straw Man or package should be considered and consulted on though.

b. The proposal to water down grandfathering rights is a function of poor problem specification i.e. specifying the problem as the inverse of the solution. Watering down of grandfathering would violate existing property rights which should not be done without very substantial benefits. The PEA has not made it clear why secondary trading, with existing grandfathering rights left intact, could not be relied on to deliver efficient price signals and allocation of capacity to its highest value use. Vector would only expect grandfathered capacity rights to interfere with efficient price signals if capacity holders hoarded capacity. The PEA has indicated it does not consider this to be a problem.

c. We are concerned about the PEA's statement that "Because of market thinness, product heterogeneity and strategic incentives, there is a risk that the steps outlined...will not be sufficient to materially improve allocative efficiency and price signalling. In that case, it would be appropriate to consider further steps".[19]

   Vector would not support introducing regulatory changes, such as watering down grandfathering, that would materially impact on the property rights of our customers without, amongst other things, a high degree of confidence that the changes will result in substantially better achievement of the objectives in the Gas Act. It would be untenable, and would be poor regulatory practice, simply to rely on the option of introducing further regulatory change if the first round of regulatory changes fails.

   If it cannot be demonstrated with adequate confidence that a market-based approach to signalling the scarcity value of capacity would work, then the PEA should consider administered options, such as pre-specification of a scarcity price e.g. Value of Lost Load.[20]

d. The PEA has suggested the Straw Man would represent an evolutionary approach and would precede a longer-term solution to access arrangements. It is not clear how the PEA sees the access regime evolving from status quo, the Straw Man, and then to longer-term access arrangements. Nor is it clear whether the changes from the Straw Man to a longer-term solution would reflect an "evolution". They potentially could be in conflict. The PEA needs to be clearer about what an optimal long-term solution could look like and the relative merits of adopting a multi-stage reform process to get there.

e. The PEA has not used its review of international experience to properly inform the Straw Man, or any other option. The report contains no analysis of what works and what does not work in international jurisdictions and why. For example: Why has Europe abandoned point-to-point capacity for zone-to-zone capacity, and what problems has this caused? Similarly, no analysis of the pros and cons of the Victorian Market Carriage and the Short-Term Trading Market in the other states of Australia have been undertaken, even though these are

[19] Page 47, PEA Report.

[20] Vector has clearly signalled this preference for marked-based approaches over administrative approaches, for example, in response to the Electricity Authority's consultation on a decision-making framework for electricity transmission pricing.

probably the most relevant international experiences for New Zealand.[21]

29. A complicating factor the PEA should turn its mind to is that transmission access is provided under a contract regime where Vector sells capacity rights. This may make use of market arrangements to allocate capacity difficult. Under current arrangements the best approach may be a secondary market where participants trade their capacity rights. If we had common carriage in which there was no allocation of capacity rights, a spot market or nominations regime could more readily be adopted that allows management of overall capacity at peak times. The PEA should give consideration to other forms of carriage, including, among others, common carriage and "market" carriage.

Gas Transmission Price Paths

30. Consideration will need to be given to how scarcity pricing could be managed in relation to Part 4 of the Commerce Act.

31. Vector has regulatory obligations under Part 4, a breach of which would be unacceptable to Vector. Associated significant risks to Vector without compensating, if not overriding benefits, would also be unacceptable, e.g. Vector not being able to obtain its allowed revenues and therefore not recovering the full costs, including cost of capital, of providing gas transmission services.

32. The recovery of fixed and sunk costs has no relationship to scarcity value, which may fluctuate substantially relative to the revenue required for full cost recovery. The pricing signal from scarcity pricing would be valuable to the gas market (but not of benefit to Vector) for ensuring efficient allocation of capacity, and enabling wholesale market participants to make trade-offs during peak periods.

33. If a market mechanism operated by Vector was used to signal when transmission becomes constrained, or an administrative scarcity charge is established, the revenue could be considered to be part of Vector's GTB allowable revenue under Part 4 of the Commerce Act.[22] Should this be the case, the revenue volatility and unpredictability from the scarcity rents would make it very difficult for Vector to comply with the Commerce Commission's price thresholds. As the PEA Report observes, "these rents probably cannot be retained by the pipeline owner without undermining its price control provisions".[23,24]

34. It should be apparent from the discussion above that the impediment to adoption of scarcity pricing/market arrangements is not that "the pipeline owner would be likely to be constrained from keeping any scarcity rentals that might accrue", but the opposite.[25] It would be treatment of scarcity rentals as part of Vector's allowable gas transmission revenue under Part 4 that would cause the problem.

35. These problems could be readily addressed if Vector does not keep the scarcity rents, and the Commerce Commission agrees not to treat the scarcity rents as part of Vector's GTB allowable revenue. Similar arrangements exist for electricity transmission rentals, which are passed on

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[21] Refer presentation by Dr Larry Ruff, made to GIC Conference, http://gasindustry.co.nz/sites/default/files/u12/7._larry_ruff.pdf

[22] Provision of transmission capacity is part of regulated gas transmission services.

[23] Page 49, PEA Report.

[24] Vector is unsure why this statement is qualified by "probably".

[25] Page 34, PEA Report.

by Transpower and not treated as part of its allowable revenue.[26] This would be appropriate as Vector should not receive higher revenue because of constraints on its gas transmission system.

36. The PEA therefore needs to consider how scarcity pricing could be managed in relation to Part 4 of the Commerce Act, including the best way to allocate the rentals and how to avoid the pass-through distorting the transmission or scarcity price signals. Vector envisages any new arrangements would require the cooperation of the Commerce Commission, e.g. by way of changes to its Input Methodologies.

Gas Transmission Pricing Methodology

37. Vector is broadly comfortable with the PEA Report's comments in relation to Vector's gas transmission pricing methodology (GTPM), specifically that consideration be given to a market-based approach to determine scarcity prices outside of the GTPM. That would then mean the GTPM would be limited to: (i) cost recovery (as set by the Commerce Commission through its price paths), and (ii) allocatively efficient pricing.

38. The PEA's comment is consistent with Vector's current proposals in relation to the GTPM.[27] It should be stressed though that the matter of gas transmission pricing is determined by Vector subject to Commerce Commission regulation under Part 4 of the Commerce Act. The Commerce Commission is responsible for regulation of gas transmission pricing.

39. Section 52T(1)(b) of the Commerce Act prescribes that the Commerce Commission must set an Input Methodology "for pricing methodologies, except where another industry regulator (such as the Electricity Authority) has the power to set pricing methodologies in relation to particular goods or services".[28]

40. The Commerce Commission's gas pricing Input Methodology contains the following Pricing Principles:[29]

> 2.5.2 Pricing principles
>
> (1) Prices are to signal the economic costs of service provision, by-
>
> (a) being subsidy free, that is, equal to or greater than incremental costs and less than or equal to standalone costs, except where subsidies arise from compliance with legislation and/or other regulation;
>
> (b) having regard, to the extent practicable, to the level of available service capacity; and

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[26] In the electricity context, scarcity pricing is implemented through spot market with a form of hedge contract that can be auctioned. Rentals are returned to those holding the hedges no matter what they do on the day. This hedges congestion risk and keeps scarcity rents away from the transmission owner. There is no reason why a similar concept would not work on gas transmission system.

[27] http://www.vector.co.nz/sites/vector.co.nz/files/120531_V1%200_GTPM%20Position%20Paper%20proposed%20framework%20and%20provisional%20prices%20-%20PUBLIC.pdf

[28] The Electricity Authority has jurisdiction over pricing provided by s 32(2)(b) of the Electricity Industry Act 2010:

> 2) The Code may not—
>
> (a) impose obligations on any person other than an industry participant or a person acting on behalf of an industry participant, or the Authority; or
>
> (b) purport to do or regulate anything that the Commerce Commission is authorised or required to do or regulate under Part 3 or 4 of the Commerce Act 1986 (other than to set quality standards for Transpower and set pricing methodologies (as defined in section 52C of that Act) for Transpower and distributors); or

There is no equivalent carve out of gas transmission or distribution pricing in the Gas Act. This is why the Commerce Commission has specified gas pricing principles, but simply cross-referenced the Electricity Authority's pricing principles for electricity.

[29] Commerce Act Gas Transmission Services Input Methodologies Determination December 2010.

(c) signalling, to the extent practicable, the effect of additional usage on future investment costs.

(2) Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall is made up by prices being set in a manner that has regard to **consumers'** demand responsiveness, to the extent practicable.

(3) Provided that prices satisfy (1) above, prices are responsive to the requirements and circumstances of **consumers** in order to-

(a) discourage uneconomic bypass; and

(b) allow negotiation to better reflect the economic value of services and enable **consumers** to make price/quality trade-offs or non-standard arrangements for services.

(4) Development of prices is transparent, promotes price stability and certainty for **consumers**, and changes to prices have regard to the effect on **consumers**.

41. Vector needs to ensure any changes it considers making to its GTPM, or as recommended by interested parties such as the PEA, comply with the Commerce Commission's gas pricing Input Methodology.

Overlaps in responsibilities between the GIC and Commerce Commission in relation to gas transmission investment

42. The boundaries between the GIC and Commerce Commission in relation to gas transmission investment are more problematic than for gas transmission pricing. The GIC and Commerce Commission have overlapping responsibilities for gas transmission investment.

43. We acknowledge the matter of gas transmission investment may not have received as much attention as it otherwise might because the PEA's analysis recognises there is unlikely to be a need for any major upgrade of existing transmission assets, absent discovery and development of major new gas fields, for the foreseeable future.

44. Vector agrees with the concern expressed in the PEA Report as to "whether the default/customised price-quality regulation provides transmission pipeline owners with sufficient certainty regarding cost recovery to invest efficiently in additional capacity".[30]

45. Vector addressed this matter in its 7 June 2011 submission to the GIC "Submission on the Proposed Gas Transmission Investment Project".

46. Both the GIC and Commerce Commission have statutory objectives to ensure GTBs have incentives to invest.

47. Section 43ZN(b)(iii) of the Gas Act states that the objectives of the GIC include ensuring "incentives for investment in gas processing facilities, transmission, and distribution are maintained or enhanced" along with various interrelated objectives. Similarly, section 52A(1)(a) of the Commerce Act states that an objective of the Commerce Commission is to ensure regulated utilities "have incentives to innovate and to invest, including in replacement, upgraded, and new assets" along with various interrelated objectives.

48. Clearly, regardless of what the GIC does, the Commerce Commission's operation of Part 4 of the Commerce Act will influence the incentives for Vector to invest in gas transmission.

49. At present, Vector does not have confidence it will be able to recover a commercially sustainable, or realistic, return on energy network investments under the Part 4 regulatory regime. This is part of the reason

[30] Page 1, PEA Report.

Vector is appealing the Commerce Commission's Input Methodology decisions.

50. The risks to Vector in relation to gas transmission investment are exacerbated by the uncertainty created by having two regulators with overlapping responsibilities and no clarity as to how these overlaps will be addressed.

51. The Commerce Commission can approve gas transmission investment as part of a Customised Price Path (CPP), while section 43F(2)(d) of the Gas Act contains draconian regulatory-making powers that could be used by the GIC to make a recommendation to the Minister of Energy and Resources to require that gas transmission investments be made and specify how they will be paid for (which may or may not be adequate from the GTB's perspective, or sufficient to recover the actual cost of the investment). Incentives to invest are not promoted by draconian regulatory provisions that create substantial risk and uncertainty.

52. Vector believes the PEA should recommend section 43F(2)(d) of the Gas Act be revoked. We were surprised the PEA Report made no reference to section 43F(2)(d). This is a matter Vector has expressed concern about to the GIC in a related submission.

53. Sections 54R and 54S of the Commerce Act provide a more satisfactory framework for grid investment approval but, unfortunately, this relates solely to electricity transmission. Sections 54R and 54S allow Transpower to seek preapproval for individual capital investments without applying for a CPP. It would be desirable for gas transmission investment to have this option as well.

54. Along with revocation of section 43F(2)(d), Vector believes the PEA should recommend the Commerce Act be amended to enable both Transpower and GTBs to make capital expenditure proposals to the Commerce Commission without having to apply for a CPP.

55. We appreciate that changes to the Gas Act or Commerce Act are a matter for the Minister of Energy and Resources to consider, but the GIC, preferably with support from the Commerce Commission, could make recommendations to the Minister for legislative change.

Next steps

56. Vector believes the next step for the PEA should be to release a consultation paper, which:

    a. Makes an informed determination of the extent of the problem/market failure and of any resulting impact on the gas industry and consumers including;

        i. How risks relating to "market thinness, product heterogeneity and strategic incentives" etc could be managed, if not fully overcome;

        ii. Whether secondary trading (with unchanged grandfathered capacity rights) could be relied on to ensure efficient allocation of capacity and, if not, what the barriers to efficient allocation from secondary trading may be;[31]

[31] For example, secondary capacity trading may never amount to much unless the transmission owner operates a centralised market that reconfigures as well as reallocates point-to-point capacity in response to secondary trades. An alternative to this could be to eliminate the complications of such a contract market and let the system operator (the transmission owner or an independent) allocate

b. Identifies and assesses reasonably practicable access regime options and includes an initial shortlist of preferred market design/access regime options (including the alternative options the PEA has already considered);

c. Provides greater clarity as to how preferred policy options would be implemented, e.g. which regulation-making powers would be relied on and how boundary issues with the Commerce Commission would be addressed. This should include the outcomes of discussions with the Commerce Commission and the Ministry of Business, Innovation and Employment;[32] and

d. Includes a cost-benefit analysis of the various policy options and forms of carriage being considered.

57. The PEA needs to ensure it is in a position to demonstrate that not only is its preferred policy options or package an improvement on the status quo but also superior to other potential options in achieving the GIC's statutory objectives. This will require:

a. Identification of other policy options; and

b. Both a qualitative and quantitative assessment of at least a short-listed range of options.

Additional comments

PEA Report statement	Vector comments
"At the moment, the generators with bespoke contracts play this sort of role, although the arrangements tend to be ad hoc, with limited formality and transparency, and rely on the goodwill of the generators."[33]	The existence of the OTB IUC has been publicly disclosed by Contact. No other generator has such a contract at present; hence, they don't play any role.
"...a more sophisticated approach would involve the TSO instituting some sort of market pricing mechanism at the time of system stress to determine the order of interruptibility."[34]	We agree in principle but add a caveat: A more prudent approach may be the introduction of a market-based mechanism that operates in advance of every day. On non-stress days, it would be nothing more than a routine notification process. On a stress day, security constrained schedules and associated prices would be set in advance.
"The more homogenous the capacity products are, the more likely it is that secondary trading would result in allocative efficiency. Accordingly, there is an argument for moving towards wider zones and away from the	The whole debate in which the PEA is engaged arises because of constrained capacity on a particular pipeline. Zones ignore pipeline physics completely, however. Hence, a more "homogenous" definition, and more zones, would be directly harmful to management of transmission capacity constraints and could compromise security of supply.

physical capacity directly given the market conditions on the day, thus eliminating the inefficiencies referred to in paragraph 19.

32 Page 50, PEA Report.

33 Pages 43 and 44, PEA Report.

34 Page 44, PEA Report.

PEA Report statement	Vector comments
point-to-point property rights that are in place today."[35]	Zones were introduced for commercial reasons at a time when capacity was not constrained. Knowing precisely where capacity is "from and to" is more important than ever for both Shippers and Vector when there are capacity constraints. Zones just introduce more uncertainty and send the wrong signals.
"All capacity...should be tradable...and sub-dividable ...However, the TSO would need to maintain the right to reject trades and other transactions if system integrity would be jeopardised."[36]	Reserved Capacity is already tradable, and is already sub-divisible. That has been the case since around 1993. However, the issue is not that capacity is tradeable but whether there is liquidity and how you manage the reconfiguration of all point-to point-capacity in a fully allocated contract market when a trade is made.
"A more specific issue is allocation of capacity when short-term constraints occur... such as occurred over the 15-19 August 2011…"[37]	No constraint actually occurred. Everyone got the gas they wanted. NZRC was interrupted, as allowed in their contract, but that did not (and does not) represent a constraint.[38] One directly-connected end-user experienced a marginal drop in delivery pressure for a few hours, which had no impact on its operations. (It made no claim against Vector.)
"...a nominations regime could assist in more general pipeline management."[39]	We agree but only if the nominations regime were decoupled from a contracts market so that constrained schedules with associate prices can be published ahead of time, allowing market response and maintenance of security – just like in the electricity market.

Concluding remarks

58. Vector is pleased there is a general recognition now that a "build it and they shall come" approach to gas transmission investment is not appropriate and it would be uneconomic to "duplicate" the Northern Pipeline simply to address capacity issues that arise for about one week of the year. The impact an expansion of the physical capacity of the Northern Pipeline would have on gas transmission prices to our customers cannot be justified based on forecast demand growth.

59. It is appropriate then that the focus should be on how to best ensure efficient utilisation of the existing assets. Vector would stress that efficient utilisation relates to both peak (allocation to the highest value user) and off-peak (avoiding under-utilisation) periods. The focus of the PEA has been on the latter.

[35] Page 44, PEA Report.
[36] Page 45, PEA Report.
[37] Page 49, PEA Report.
[38] NZRC being an interruptible consumer, on a part of the North Pipeline not designed for their load and which has never been capable of supplying all the consumers at their peak simultaneously.
[39] Page 48, PEA Report.

60. Vector is concerned the PEA may have "jumped the gun" with the Straw Man proposal. In our view, more work is required in relation to understanding what the actual problem is that the PEA is trying to resolve, and what impact the problem has on the gas industry and consumers.

61. Much of the PEA's problem definition appears to be designed to fit a solution whereas it should be the other way around. For example:

    a. The Problem Definition section defines the problem as being the gap between the preferred arrangements and the status quo. It is not possible to define the problem in this way without specifying the solution first.

    b. The problem in various places in the PEA Report is simply described as the inverse of the solution, e.g. if the problem is that the "capacity product definition allows grandfathering"[40] it is tautological that the solution is to reduce or eliminate grandfathering.

62. Vector believes that while the PEA's Straw Man warrants further consideration, it is premature to determine preferred policy options or a preferred package.

63. The problem the PEA is trying to resolve first needs to be robustly defined and understood. The discussion above illustrates how misspecification of the problem can result in misidentification of the appropriate policy solutions.

64. The PEA will have to "Identify and assess reasonably practicable access regime options and prepare an initial shortlist of preferred market design/access regime options...", as required by its Terms of Reference. It is unclear from the PEA Report what options other than the Straw Man the PEA has considered.

Yours sincerely

Bruce Girdwood
Manager Regulatory Affairs

[40] Page 6, PEA Report.

Appendix: Responses to the GIC's questions

GIC Question	Vector's response
Do you agree that it is appropriate to adopt an evolutionary approach to reform – in keeping with experience in other jurisdictions – or is a more radical approach required?	The PEA Report states that "...the practical difficulties of implementing broad reform of the access arrangements...led the PEA to focus its attention on enhancements to the access arrangements on Vector's transmission system"[41] and "In the longer term, the PEA recognises that more efficient outcomes may be achieved by establishing a common set of access arrangements that apply seamlessly across the Vector and Maui transmission systems. At this stage, the PEA is not advocating such major reform, but notes that a common access arrangement may be the logical end-point in terms of future development".[42] It is unclear to Vector how the PEA sees the access regime evolving from status quo, the Straw Man, then to longer-term access arrangements, or what changes would necessarily reflect an "evolution". It is not apparent from the PEA Report why it would be a good idea to develop a Straw Man regime now, and then a broader set of reforms at a later stage. Practical difficulties do not seem like a good reason not to address broader potential reforms at this stage. There will inevitably be practical difficulties even with the Straw Man option, but the PEA is still proposing this. At the very least, the PEA should be assessing the option of moving straight to a longer-term solution, including alternative carriage models and not just variants on one carriage model.
Has the PEA characterised the capacity problems on the North Pipeline accurately?	Further work is required on problem definition (see main submission).
Do you agree that the current grandfathering of reserved capacity may inhibit the efficient allocation of reserved capacity to shippers?	This may only be an issue if hoarding is a problem. Otherwise, the issues are likely to be around barriers to trading.
Do you agree with the PEA's recommendation to water down the current grandfathering	Further work is required on problem definition (see main submission).

[41] Page 1, PEA Report.
[42] Pages 1 and 2, PEA Report.

GIC Question	Vector's response
arrangements, rather than phase out grandfathering altogether?	It is too early for the PEA to make firm recommendations on grandfathering. The policy options are not limited to watering down grandfathered property rights or removing them altogether. Vector does not believe the PEA has demonstrated a need to reduce grandfathered property rights. Vector considers the PEA's proposals for grandfathering stem from a misspecification of the problem. If the problem is that the "capacity product definition allows grandfathering", it is tautological that the solution is to reduce or eliminate grandfathering. Determining why there is low uptake and why trading is thin is a critical matter as it goes to the heart of whether a market-based trading mechanism should or could be relied on to deliver scarcity price signals, or whether an administered price should be adopted to signal scarcity instead. Grandfathering is not necessarily the problem. If there is an efficient mechanism for capacity trading, the initial allocation (grandfathering) may not impact on efficiency of capacity usage. The initial allocation (described as the "primary allocation") may just impact on potential windfall gains from grandfathered property rights. Grandfathering is only likely to create a problem if hoarding is a problem but the PEA expresses the view that "There is not any evidence that hoarding has occurred on Vector's pipeline"[43] or of incentives to hoard.[44] The PEA Report expresses the contrary view that "The opportunity cost of hoarding would also be high at times of constraint".[45]

[43] Page 35, PEA Report.
[44] Page 49, PEA Report
[45] Page 49, PEA Report

Is it appropriate to water down grandfathered rights to, say 80% of the previous year's reserved capacity? Is 80% appropriate, in order to balance certainty for shippers and encouraging a more efficient primary allocation of reserved capacity?	It is too early for the PEA to make firm recommendations on grandfathering. Vector is concerned about the ramifications of interfering with property rights, as reflected in the main body of our submission. Furthermore, 80% appears to be an arbitrary number. The PEA Report does not explain how this number was come by, or why it would not be superior to say 85% or 75%.
Do you agree that interruptible contracts need to be transparent, and that it is desirable to have more interruptible arrangements in place to assist in management of capacity during peak demand and supply-side disruption periods?	The PEA needs to undertake further work to answer this question.
Are any other changes required to the product definitions? For example, multi-year reserved capacity products or greater use of point-to-zone rather than point-to-point capacity?	The PEA needs to undertake further work to answer this question.
Is it appropriate to establish the price of reserved capacity through an auction process in order to signal the value to shippers and the TSO?	The PEA needs to undertake further work to answer this question.
Do you agree that 20%, say, of the total reserved capacity is an adequate proportion to be auctioned if the demand for reserved capacity exceeds the supply?	The PEA needs to undertake further work to answer this question.
Should the auction proceeds in excess of the TSO's revenue cap be returned to shippers, end customers or retained by the TSO? What mechanism, if any, should be used for returning the proceeds to shippers or customers?	The PEA needs to undertake further work to answer this question. The arrangements will need to ensure that the auction proceeds (scarcity rents) are not treated as part of Vector's allowable revenue under Part 4 of the Commerce Act. If they were, the revenue volatility and unpredictability from the scarcity rents would make it very difficult for Vector to comply with the Commerce Commission's price thresholds. Vector would then either breach the price thresholds or not obtain its allowed revenues (and, therefore, not recover the full costs (including cost of capital)

	of providing gas transmission services). There would be substantial risk to Vector but Vector would receive no compensating benefit from the arrangement. These problems could be readily addressed by ensuring Vector does not keep the scarcity rents, and the Commerce Commission does not treat them as part of Vector's GTB allowable revenue. Similar arrangements exist for electricity transmission rentals which are passed on by Transpower and not treated as part of its allowable revenue. This would be appropriate as Vector should not receive higher revenue because of constraints on Vector's gas transmission system. This would require the cooperation of the Commerce Commission. It is important to ensure that scarcity rentals are not allocated in a way that distorts the scarcity pricing signal.
Is it appropriate to adopt a watching brief in relation to secondary trading, given the Bridge Commitments that are already under way?	The PEA needs to determine why the market has been illiquid and trading has been thin. It needs to undertake further work on this matter.
Do you agree with the PEA's recommendation that the prices established through secondary trading should be made public in real time?	Vector agrees that prices should be made public. Making the prices available in real time would be more problematic. This would require further consideration.
Are any other measures required to facilitate secondary trading?	This depends on the reasons why the market has been illiquid and trading has been thin. The PEA needs to undertake further work on this matter.
Do you agree with the PEA's recommendation to introduce a nominations regime on the Vector system?	The PEA needs to undertake further work to answer this question. The PEA has given insufficient detail as to what the objectives of the nominations regime would be for us to be able to say yes or no at this stage.
If a nominations regime is introduced, what mechanisms should be put in place to ensure that nominations are accurate?	The PEA needs to undertake further work to answer this question.
Is it appropriate for Vector's role as TSO to be extended to manage the auction of reserved capacity?	The auction does not necessarily need to be conducted by Vector but there will need to be close association with Vector.

Do shippers and end consumers have enough information about the physical capacity on Vector's pipelines, and how Vector sets the amount of commercial capacity?	The matter of transmission capacity has been poorly dealt with in the existing Gas (Information Disclosure) Regulations 1997. Vector has been working hard with the Commerce Commission, GIC and industry to ensure more robust information provision.
What additional information should be provided by Vector, noting the costs of providing information will ultimately be borne by shippers and customers?	This is a matter that should be dealt with as part of the Commerce Commission's Gas Information Disclosure Requirement proposals.
The PEA has focused on how arrangements for transmission access and capacity pricing can best allocate capacity efficiently and effectively signal the need for investment in additional capacity. Another GTIP project 'Testing investment options' is aimed at clarifying regulatory arrangements to ensure that there is an effective pathway for efficient gas transmission investment to take place. Do you consider that the PEA should also be involved in that work? If so, are there any views about that work you wish to note at this stage?	The project considering investment options needs to consider the GIC's and Commerce Commission's overlaps in responsibilities for gas transmission investment It should also specifically consider whether section 43F(2)(d) of the Gas Act should be revoked. This section contains draconian regulatory-making powers that could be used by the GIC to recommend the Minister require gas transmission investments be made and specify how they will be paid for, which may or may not be adequate from the GTB's perspective, or sufficient to recover the actual cost of the investment. Incentives to invest would not be promoted by draconian regulatory provisions that create substantial risk and uncertainty. These matters are discussed in more detail in the main body of the submission.