MEMORANDUM

To: ESCOSA

From: Jeff Balchin
Director

Date: 30 August 2006

Re: Analysis of the NERA Paper on Prepayment

A. Introduction

The purpose of this paper is to set out our views on the analysis presented and conclusions reached in the paper prepared by NERA for Envestra entitled 'Envestra's Payment Terms in SA', dated 24 July 2006.

I have not addressed in detail all of the arguments made by NERA, primarily because I consider that NERA's principal argument – namely, that 'prepayment' does not have any continuing economic effect – to be incorrect. The principal arguments advanced by NERA are addressed in the order presented in its paper.

B. Arbitrariness of the final decision

NERA has argued that ESCOSA's argument for removing the benefit associated with prepayment is arbitrary because it is not consistent with the 'standard' regulatory practice of ignoring payment terms. While ESCOSA's reasons referred to 'industry practice', NERA has assumed that ESCOSA actually intended to refer to 'regulatory practice'.

It would appear in this that NERA has not understood ESCOSA's reasoning and as a result has incorrectly concluded that there is in fact no reason given (i.e. that the decision was arbitrary). In particular, my reading is that ESCOSA did not conclude that standard regulatory practice was to deduct an amount from the revenue requirement if revenue was received in advance of the service being provided. Rather, the logic that was set out by ESCOSA was that:

- Envestra's receipt of money in advance of providing the service was inconsistent with the standard industry practice with respect to billing terms (where the industry was identified as energy distribution), with 'billing in arrears' (taken as one month in arrears, although this was noted as conservative) identified as the industry standard;

- it was inappropriate for Envestra to gain an advantage resulting from its non-standard billing terms; and

- thus the benefit that Envestra receives as a result of its non-standard billing terms should be removed.

The effect of ESCOSA's decision, therefore, is to leave Envestra in the same position as it would have been in if Envestra had proposed industry standard billing terms.

NERA is correct that no other regulator (at least that I know of) has deducted an amount of revenue from the revenue requirement to deduct any timing advantage associated with the actual billing terms that are proposed. However, NERA is not correct to infer that regulators have generally ignored the actual timing of intra-year costs and revenues.

Rather, a number of regulators have undertaken extensive analysis of the implications of the actual intra-year timing of revenue for the adequacy (or above-adequacy) of regulated revenue, although the conclusions reached in the decisions I am aware of have concluded that any positive bias in favour of the regulated business that is caused by the actual intra-year timing of revenue and expenditure compared to that assumed implicitly when regulated revenue is calculated is not sufficiently material to justify an adjustment to the revenue requirement. It is also the case (as NERA points out) that several regulators have provided 'working capital allowances' in regulated revenues. These allowances require an explicit consideration of the actual timing of revenue and expenditure of the relevant businesses, which contrasts directly with NERA's assertions.[1]

However, even if other regulators have ignored the positive bias that regulated energy distributors get under the normal building block formulae, it is open for ESCOSA to adopt a contrary view – and the fact that Envestra's billing arrangements set it apart from other Australian energy distributors (i.e. by receiving payment in advance rather than in arrears) could provide a reason for doing so.

Lastly, I do not agree with NERA that ignoring actual payment terms is consistent with a 'sound reading of the economic requirements of the Code'. The principle guidance on this matter that NERA draws attention to – that the reference tariffs should recover efficient cost (section 8.1(a)) – would best be met by a very sophisticated calculation of the revenue requirement that reflected the actual billing and other terms being offered. However, more sophistication brings with it greater complexity and potential administrative cost – and it is a matter for the regulator to decide how this trade-off is best met.

C. Does the prepayment have an enduring economic effect?

NERA's principal argument is that the fact that Envestra requires prepayment for distribution services has no enduring economic effect, including that it does not convey an ongoing windfall to Envestra, leads to an inconsistent treatment of economically identical firms, and places substantial weight on how a particular charge may have been characterised 100 years ago (or, in the case of Envestra, at the time it was created in 1997).

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[1] However, as I have advised before, if ESCOSA's building block formula is used, there is no need to provide a working capital allowance. This is because the implicit assumptions in ESCOSA's building block formula about the intra-year timing of revenue and expenditure already lead to an overstatement of the cost of providing the regulated service. However, if a different formula was used – for example, one that assumed implicitly that revenue and expenditure were incurred continuously or at the mid-point of each year (which deliver virtually identical results), then a working capital allowance would become appropriate.

I do not agree with NERA's conclusions on these matters. The reasons for this are out below.

What is the enduring economic effect of Envestra's payment terms?

The actual payment terms that ESCOSA is assessing as part of its review of Envestra's proposed access arrangement are the terms and conditions under which Envestra would be required to provide access seekers with the reference service in return for the reference tariff. Variants on these terms and conditions can be negotiated (and are subject to arbitration) – but it is assumed here that access seekers merely take the reference service (with the terms and conditions in the access arrangement) at the reference tariff.

The most likely access seekers to Envestra's network are retailers, both existing and new entrant, and South Australian Government – in line with most of the other Australian Governments – have a policy of enabling and promoting competition in the gas retail market. Once sufficient competition is established in the retail sector, the price regulation that exists on the retail sector can be wound back and ultimately removed, with the forces of competition providing an adequate discipline on the price/service offers being made to final customers.

In the context of a retail market that is competitive (or on the transition to becoming competitive), economic principles imply that the terms and conditions very relevant to economic outcomes. In particular economic principles imply that, in a market that is characterised by effective competition, the long run equilibrium price level will tend towards the cost that would be incurred by new entrants into that market. This is a principle that NERA should not be uncomfortable with – and in fact, has espoused well in its own previous work:[2]

> … it is useful to recognise that prices in competitive markets are determined by entry opportunities (where entry may involve an entirely new firm or the expansion of capacity by an existing firm). It is the costs of efficient new entrants that determine the long-run sustainable price level in a competitive market. If prices are set above those costs, entry will be attracted until prices and new entrant costs are once again equated.

The billing-related terms and conditions that are offered to new entrants will affect the costs that new entrants incur to serve the market, and hence would be predicted by economic principles to affect the long run equilibrium price. In particular, compared to the situation where retailers pay one month in arrears for the use of Envestra's distribution system,[3] Envestra's terms and conditions would imply that new entrant retailers would pay distribution charges two months earlier. This earlier payment represents a cost – namely the cost of financing the earlier payment – and therefore increases the cost structure of new entrants, and hence the final (retail) prices that would be expected to prevail (i.e. the long run equilibrium condition).

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[2] NERA, 2003, Asset Valuation for the Gas Control Inquiry: Report for NGC, August, p.8 (available at: www.comcom.govt.nz//RegulatoryControl/GasPipelines/ContentFiles/Documents/NGC-NERA.pdf).

[3] I note here that, in Victoria at least, retailers pay later than one month in arrears for distribution services.

To be clear, entry in this situation refers to both the entry of a new retailer and the expansion of an existing retailer. Thus, the effect of Envestra's billing policy (compared to the situation where distribution charges are paid in arrears) would imply that:

- a new retailer would pay distribution charges for all of the customers that it manages to attract two months earlier than otherwise, which would raise its cost of serving those customers by an amount equal to the additional financing costs incurred; and
- any existing retailer that attracted a customer off of a competitor would have to commence paying distribution charges for that customer two months earlier than otherwise, which would raise the cost of serving the customer by an amount equal to the additional financing costs incurred.

The result of Envestra's proposed billing policy, therefore is that, compared to the situation where retailers pay for distribution charges in arrears, the costs borne by retailers in serving new customers will be higher, which economic theory in turn predicts will be impounded into prices. Thus, in contrast to NERA's conclusions, I conclude that the difference in billing terms will have an obvious economic effect.

Will Envestra be permitted to recover its efficient cost, as the defined under the Code, if ESCOSA deducts the benefit from prepayment?

NERA makes a number of statements regarding whether ESCOSA's decision is consistent with the Code, including that it would:

- lead to Envestra recovering less then efficient cost (and hence violating the objective in section 8.1(a));
- amount to a de facto reopening of the regulatory asset base; and
- more generally, that it amounts to 'retrospective regulation' which, although not prohibited expressly by the Code, is something that we agree is against the spirit.

NERA's logic for reaching these conclusions is that, at least after the first few months, the cash flow that Envestra receives under prepayment or payment in arrears are (virtually) identical. Hence, to claim that one cash flow is somehow excessive lacks logic, means that costs are not being recovered, and amounts to questioning facts that occurred in pre-history.

The flaw in NERA's logic is that the scheme of the Code, and all of the definitions contained therein, is not to permit Envestra merely to receive a 'cash flow' unrelated to anything else. Rather, the scheme of the Code is that Envestra is required to provide a service to retailers (and ultimately final customers), for which it is permitted to recover the cost of providing those services. In an access arrangement review, the concern is to determine a reference tariff that will apply to reference services over the forthcoming access arrangement period that allows the recovery of costs incurred in providing the reference services over that forthcoming period.

Within this framework:

- the Code sets out a formula is set out for calculating the capital base as at the start of the new access arrangement period (which is the deemed value of the provider's investment at the start of the period);

- forecasts of operating and capital expenditure are made for the new access arrangement period;

- depreciation and the required return on assets is forecast for the new access arrangement period (both on the capital base as projected over the access arrangement period); and

- reference tariffs are determined such that the revenue expected from the provision of reference services over the new access arrangement period recovers the costs defined above.

It is self evident that, if Envestra commences charging earlier than otherwise for providing services over the new access arrangement period (and, indeed, commences charging before that period has started), its costs will be lower by an amount equal to the savings in financing costs associated with the earlier receipt of money. Accordingly:

- if the revenue level *before the adjustment* that ESCOSA has determined would have been appropriate if Envestra charged for its services in arrears; and

- Envestra's terms and conditions imply that it will charge in advance for the service; then

- the cost of providing the reference services over the access arrangement period would be lower (by the savings in financing cost noted above); and

- the revenue that ESCOSA had determined *before the adjustment* would overstate Envestra's cost of providing the reference services over the access arrangement period (by the savings in financing cost noted above); and

- the adjustment made by ESCOSA would be required to set reference tariffs that are expected to recover the cost of providing reference services over the access arrangement period.

It is also evident that there is:

- *nothing retrospective with taking account of Envestra's billing terms* – the analysis presented above is concerned solely with revenue and expenses associated with the sale of services over the *forthcoming* regulatory period; and

- *no reopening of the capital base (de facto or otherwise) has occurred* – the capital base as at the commencement of the new access arrangement period is calculated according to the principles set out in the Code, and the reference tariffs determined will ensure that Envestra receives an appropriate return on its investment when its assets are used to provide reference services over the forthcoming access arrangement period.

Is excessive reliance being placed upon historical payments between Origin and Envestra?

Lastly, one of NERA's propositions is that ESCOSA's treatment of Envestra places substantial weight on how the first payment received by Envestra in 1997 was characterised. It argues that if this payment was named instead a registration fee or something similar, or if it had just been allowed to keep sales revenue that accrued prior to it being formed (as NERA argues was the case in Victoria) and the subsequent payments labelled as being in arrears, then it would be treated differently today even though its cash flows would be the same. NERA argues that as the cash flows for the firms would be identical, it is nonsensical for the two firms to be treated differently.

First and foremost, the actual payment terms between Envestra and Origin have not been the focus of ESCOSA's inquiry. Rather, the focus of the inquiry has been the terms and conditions to be offered to access seekers (such as new entrant retailers). To be clear, ESCOSA cannot (through an access arrangement review) set the terms and conditions in the contract between Envestra and Origin – these parties are able to agree to whatever terms they like. ESCOSA is setting the terms and conditions that Envestra will be required to offer to access seekers in return for the reference tariff. As shown above, these terms and conditions do have an enduring economic effect – as they affect the cost structure of new entrant retailers, the terms and conditions will affect the final price to customers. If ESCOSA was not to take account of the actual payment terms being offered, then the final price to customers would be higher under Envestra's proposed terms and conditions than it would be if the terms and conditions permitted retailers to pay in arrears – even though the (physical) cost of providing the service was the same. This outcome would be nonsensical.

Secondly, Envestra's resistance to changing the terms and conditions in its access arrangement to payments in arrears stemmed from its belief that the terms and conditions in its access arrangement would flow through to Origin (which seems a reasonable assumption) and require Envestra to be without revenue for two months. However, NERA's arguments would suggest that it is purely by chance that the payments being made by Origin are classified as payments being made in advance (as they could equally have been classified as payments being made in arrears, but with Envestra having kept the revenue that accrued prior to its creation). If Origin is happy to agree to re-characterise its historical payments as NERA suggest (noting that, if Envestra receives no windfall now then it also means that Origin should be similarly indifferent to the change in how the past payments are characterised), then it would be costless for Envestra to propose terms and conditions that permit access seekers to pay for the reference service in arrears.

D. Other disciplines – the treatment of timing of revenue and expenses in accounting

While we do not provide accounting or like advice and do not have specific expertise in this regard, we note for the purpose of completeness that the practice accrual accounting (as used to generate profit and loss and balance sheet statements) goes to some lengths to attribute revenue and expenses to the period in which services are provided or expenses caused. The main indicators of profitability are derived from these statements. The fact that the Code and ESCOSA's decision are careful to focus

on the revenue and costs associated with providing defined services in defined periods, therefore, should not be seen as out of step with other disciplines.

We also note that it is standard in financial accounting to take account of the intra-year timing of revenues and expenses. The stock of working capital, as conventionally calculated, reflects the additional finance that an entity must carry compared to the situation where revenue and expenses occur continuously over a year, and the required return on working capital is the additional financing cost associated with this financing requirement.[4] Thus, again, Envestra's decision to take account of the intra-year timing of revenue and expenses should not be seen as out of step with other disciplines.

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4 If a revenue requirement was calculated on the assumption that revenue and expenses were continuous over each year of the regulatory period, then it would be appropriate to add a working capital requirement as conventionally calculated (after excluding irrelevant items, such as tax related entries).