7 December 2007

Mr Mike Buckley
General Manager
Network Regulation North Branch
AER
GPO Box 3131 ACT 2601

Dear Mr Buckley,

Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009-2014 issues paper

Thank you for the opportunity to comment on the AER's issues paper concerning matters relevant to the distribution determinations for ACT and NSW DNSPs for 2009-2014.

Detailed comments in relation to the issues raised are attached. In summary, Integral Energy submits the following:

- with respect to the introduction of a demand management (DM) incentive scheme:
  - that IPART's D-factor scheme be retained and either broadened to include, or complemented by a "learning by doing" fund that incentivises, initiatives that either reduce energy consumption, are more global in nature or test customer willingness to modify their consumption in response to efficient pricing signals;
  - that the AER publish guidelines as to the type and nature of DM projects and programs that would qualify for funding under these mechanisms; and
  - that the AER must ensure that the scheme's incentives are protected from erosion through operation of the CPI-X control mechanism and any efficiency benefit sharing scheme;
- with respect to the control mechanisms for alternative control services:
  - that there should be a lighthanded control mechanism with respect to public lighting services involving the setting of a price path for each regulatory control period; and
  - for the upcoming control period only, that it would be appropriate that the AER undertake a limited building block analysis to provide confidence that the price path is appropriate; and

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- with respect to the AER's approach to determining materiality for possible pass through events:
    - that the existing test, based on a comparison of the average annual revenue impact over the remaining life of the regulatory period meeting or exceeding a percentage of average annual smoothed revenues, be retained but that the threshold be amended to 0.5 per cent; and
    - that the AER also retain the zero threshold pass through mechanism introduced by IPART for specific events that are foreseeable, but difficult to quantify, at the time of the regulatory determination.

Integral Energy looks forward to a further opportunity to consult on these matters upon release of the AER's preliminary positions paper early in 2008. Should you wish to discuss any aspect of this submission, please contact Michael Martinson on (02) 9853 4375.

Yours faithfully

R. Powis

Richard Powis
Chief Executive Officer

Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009-2014 issues paper

Attachment to submission

INTEGRAL energy

The power is in your hands

Introduction of a demand management (DM) incentive scheme

The Transitional Rules confer discretion on the AER to develop and publish a scheme or schemes to provide incentives for DNSPs to implement efficient non-network alternatives or to manage the expected demand for standard control services in some other way.

Integral Energy supports a continuation of IPART's D-factor approach but recommends that the AER make a number of changes to enhance the scope of, and level of incentives provided by, the scheme in order to improve its effectiveness. Integral Energy's responses to the specific questions raised by the AER appear below.

1. The scope and incentives for NSW and ACT DNSPs to contribute towards efficient DM

It is well understood that there are a number of structural issues that currently limit the effectiveness of demand side participation in the NEM and that those limitations can be partly overcome by encouraging DNSPs to undertake a range of DM activities. IPART's D-factor is one of several NEM jurisdictional schemes intended to provide a mechanism that attempts to remove disincentives to DNSPs to pursue DM solutions.

There are three broad observations to make regarding the scope and incentives of a DM incentive scheme.

The first relates to the disincentive on DNSPs to undertake DM activities. A key underlying concern is that non-network solutions may increase the risk of failure to meet a DNSP's network management and quality of supply obligations. Compared with network options, DM solutions often rely upon newer, less well proven technologies. They can also be complicated, involving multiple systems and dependent on a range of service partners, including customers, for delivery. Many of these concerns should be able to be mitigated via practical experience and it is part of the purpose of a DM incentive scheme to neutralise the risks associated with such projects by underwriting that learning[1, 2]. Note that, to provide an enhanced incentive to undertake DM, the compensation under the scheme would need to be demonstrably higher.

Conceptually, the incentive mechanism could be tailored to accommodate DM initiatives with differing risk profiles. For example:

- an IPART D-factor could be applied with respect to lower risk, more typical constraint driven projects where the capex deferral benefits are readily quantifiable; and

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1 Other risks may be uninsurable, given the relative immaturity of the DM solutions market, and require additional policy and/or regulatory mechanisms to manage.

2 The NSW DM Code of Practice assists DNSPs to identify the relevant network management and quality of supply requirements. However, the Code cannot itself assist in mitigating the risks associated with specific DM options. It should be noted that any incentive scheme implemented by the AER would need to be consistent with the Code.

- a "learning by doing" fund could be used to underwrite pilot projects that offer the potential to generate important DM savings for customers but where the risk profile is higher and/or the immediate benefits are harder to quantify.

Whichever mechanisms are involved, it will be crucial to the success of the incentive scheme that the AER provide clarity in advance as to the types of DM activities that are to be incentivised. Integral Energy recommends that this be by way of guidelines and that stakeholders have an opportunity to contribute to the development of such a document.

The second broad consideration is the potential scope of demand side substitution. In principle, an incentive scheme could compensate for managing, not merely peak demand, but also energy consumption. This would be entirely consistent with the NEM objective which is directed towards both the efficient use of, and investment in, electricity infrastructure. Benefits would be able to be generated both upstream and downstream. Whether this would be appropriate as part of the overall policy package for addressing NEM demand side limitations is a broader question. In principle, however, NSPs are well placed to make such a contribution.

Related to this issue is the third matter which concerns the overall level of regulatory risk as it may bear on any DM incentive scheme. There is a currently a large and ongoing program of work being undertaken by government and policy agencies regarding how best to address the shortcomings of the demand side over the longer term. By implication, this includes the extent to which, for example:

- it may remain appropriate to incentivise DNSPs to undertake DM activities and, if so, to what levels and in respect of what expenditure; and
- pricing signals associated with DM initiatives are able to be recovered through retail tariffs.

Changes in the broader policy mix may impact on DNSPs and affect the net value to consumers of any incentive scheme introduced by the AER. These are matters which the AER would need to take into consideration in developing such a scheme and the level of incentives provided. Clearly, where there is less certainty that a DNSP will recover its DM investment, this weakens the incentive to undertake those initiatives. Consistent with the above, this applies, not just in respect of specific DM projects, but also in building and retaining the capability to plan, evaluate and undertake those activities.

2. *The role and effectiveness of the D-factor scheme in the current regulatory period*

IPART's introduction of the D-factor has resulted in a moderate increase in DM activity. Integral Energy is implementing its twelfth DM program since the introduction of the scheme. The D-factor has arguably allowed the comparison between demand and supply side to be undertaken on a more equal footing and has reduced the financial disincentives associated with pursuing DM initiatives under a weighted average price cap (WAPC) control mechanism. The foregone revenue recovery component of the D-factor has been a crucial element of the incentivisation.

The scheme has benefited customers on a number of levels: financial assistance has been provided to help implement initiatives and electricity costs to customers have been reduced, largely through the deferral of capital expenditure.

Integral Energy has implemented DM Programs where load growth is within the scope of demand reduction potential and where customers have the capacity to implement demand and energy reducing initiatives. This has limited DM programs to industrial and commercial areas.

IPART suggested in its recent review of the scheme[3] that the D-factor has had only a small impact on network decisions to implement DM programs. For context, it is worth noting that only 20 per cent of Integral Energy's current capital expenditure program is not end-of-life asset replacement or "greenfields" site development and matches the above criteria. Further, the majority of the remaining 20 per cent comprises residential areas.

3. *Options for, and the effectiveness of, a DM scheme for NSW and ACT DNSPs moving forwards*

Integral Energy considers that the D-factor mechanism should continue into the next regulatory period. This will ensure that DM programs can continue to compete with supply side options on a more equal footing and consequently, be implemented where cost effective. Three additional types of initiatives should also be recognised in order to enhance the effectiveness of the current scheme. These are:

- high energy reduction initiatives;
- global programs; and
- wider tariff-based initiatives that test the ability and willingness of customers to modify their consumption patterns when faced with efficient pricing signals in order to help reduce peak demand (and therefore capital expenditure).

The structure of the current mechanism means that DM projects can only be implemented where a capacity constraint exists and a capital expenditure project has been identified and costed in order to determine the Avoided Distribution Cost (ADC), which represents the maximum value of potential cost recovery. This results in the financial remuneration value to the customer being based on dollars per kVA of demand reduction.

However, many high energy reduction initiatives, such as lighting upgrades, result in a comparatively low kVA demand reduction. This results in a lower incentive payment towards these types of initiatives. Given the cost of energy, these projects generally have long paybacks, beyond acceptable levels for many customers. If there were a mechanism to recognise the energy reduction of these initiatives, more could be implemented, providing broader efficiency benefits that would be consistent with the NEM objective.

Sampling three DM programs currently running, 125 lighting initiatives have been identified attracting 1,029 kVA of peak demand reduction. These types of initiatives also attract the highest level of energy reduction (3,725 GWh). Unfortunately, less than ten per cent of these initiatives will be implemented due to payback being 4.5 years on average because the benefits are established by reference only to the peak demand deferral.

The current regime requires evidence of a network capacity constraint and identified capital expenditure savings to be considered valid in terms of cost recovery. This results in localised DM initiatives targeting relatively few areas. A global program that offers incentives to implement both energy and demand reducing initiatives would have the effect of slowing the overall growth rate of electricity consumption and defer future constraints from occurring. It would capture those infrequent opportunities when companies change or upgrade equipment and decisions can be influenced towards more efficient alternatives. This would have longer term benefits of implementing energy efficiency on an ongoing basis rather than only during a limited time while a two to three year DM program is running. Finally, it may also serve to generate similar benefits upstream as well as downstream.

Finally, the D-factor scheme should be expanded to facilitate wider tariff-based initiatives. At present, the scheme limits recovery of the associated costs[4] and excludes key expenditure needed to develop the initiatives, such as customer willingness to pay studies.

An alternative (or complementary) approach would be to include the above types of costs in a "learning by doing" fund. Such a fund could either operate on a capped basis or in a way similar to the TNSP contingent projects regime. The fund would provide a useful means to incentivise DNSPs to undertake DM projects or programs that have the potential to generate important demand and/or energy savings for customers but where:

- the immediate capex deferral benefits are less readily quantifiable; and/or
- the project has a higher risk profile (such as a pilot project based on a new technology).

Interaction between incentive schemes

The benefits noted above allow efficient non-network alternatives to compete with supply side options on a more equal footing. The imbalance arises from the fact that the supply side option is normally largely capital expenditure and treated very differently to the predominantly operating expenditure of the non-network option. Under the AER's regulatory control regime, opex above the levels required for delivering core network services is typically considered to be inefficient. Thus, in order to ensure an effective DM incentive, DM program expenditures would need to be quarantined when applying the CPI-X control mechanism and any efficiency benefit sharing scheme. Depending on the way the service target performance incentive scheme is

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3 IPART, *NSW Electricity Information Paper no. 2/2007.*

4 IPART, *NSW Electricity Distribution Pricing 2004/05 to 2008/09, Final Report*, p 96.

established, it may also be relevant to exclude aspects of the impact of approved DM initiatives from the calculation of performance under that scheme.

Control mechanisms for alternative control services

Currently, NSW DNSPs are, under IPART's Excluded Services Rule (ESR), required to comply with a number of pricing principles in setting prices for the construction and maintenance of public lighting infrastructure. Within those principles, the DNSPs are able to submit pricing proposals to IPART outlining the proposed price changes, the costs of providing the services, the service standards supporting those costs and an assessment of the impact of the changes on customers.

Broadly, all three of the NSW DNSPs submitted their most recent proposals calculated on the basis of a building block approach and with a set of price controls designed to continue the transition to revenue recovery on a fully-cost reflective basis. Of the three, EnergyAustralia's proposal set out a price path over the five year period from 2004 to 2009. Integral Energy's most recent street lighting application was lodged with IPART in June 2007. IPART's review of that application has not yet been completed.

Noting that public lighting accounts for a very small proportion (some two to three per cent) of its regulated revenues, Integral Energy strongly favours a lighthanded control mechanism with respect to such services. This should involve a price path across the five year regulatory control period. In principle, application of the control mechanism should *not* involve a detailed cost buildup: this would fail to distinguish the regulation of alternative control services from that of direct control services and would be difficult to justify in terms of the value delivered to customers.

However, recognising the emphasis in the Transitional Rules on ensuring consistency with IPART's current approach, Integral Energy considers it reasonable that the AER undertake a limited building block analysis for the upcoming regulatory period only. The appropriate form of regulation should then be reconsidered for future regulatory periods. The upcoming regulatory period should include a five year price path. The combination would maximise the consistency, transparency and efficiency benefits while limiting the administrative burden. Integral Energy's responses to the AER's specific questions appear below.

1. *Would continuation of the ESR meet the requirements of the Transitional Rules to determine a control mechanism consisting of one or more of a number of specified price or revenue controls?*

Broadly, the construction of the ESR is similar to that required by the Transitional Rules in that:

- the DNSP must:
  - propose a control mechanism that will allow for full cost recovery and seeks to attain the cost reflectivity of prices;
  - identify any consumer impacts and provides appropriate transitional arrangements;
  - provide sufficient supporting information to explain the basis for the changes; and
- the regulator must then accept or reject that package.

However, the Transitional Rules include several additional requirements. A number of these are matters for the AER. For example, the control mechanism must comprise one or more of the forms of control specified in cl 6.2.5(c2) and, in deciding upon the mechanism, the AER must have regard to the specific factors identified in cl 6.2.5(d) (although similar factors can be identified in the ESR).

Importantly, as noted in the issues paper, the Transitional Rules also differ from the ESR in terms of process in that, under the former:

- the DNSP must:
  - include in its regulatory proposal the proposed control mechanism for the alternative control services, a demonstration of the application of the proposed mechanism and the necessary supporting information (cl 6.8.2(c)(3A)); and
  - provide annual pricing proposals shortly ahead of the regulatory year in which they are proposed to take effect (cl 6.18.2); and
- the AER must:
  - decide on the control mechanism as part of its distribution determination (cl 6.12.1(12)); and
  - approve, require resubmission of, or amend the pricing proposals annually (cl 6.18.8(a)).

This process gives rise to a potential transitional issue as the AER is obliged to publish its statement concerning the control mechanism no later than 1 March 2008 or one month after the commencement date of the Transitional Rules, whichever occurs later (cl 6.2.5(e)). Depending on how cl 6.8.2(c)(3A) is interpreted, this may leave the NSW DNSPs an insufficient period of time to review the AER's decision and prepare and lodge their own proposals as to the

appropriate mechanism, including the required supporting information, by the required date of 2 June 2008.

This is less likely to be the case if that clause is understood to require only that the regulatory proposal identifies the mechanism, demonstrates its functionality and contains information sufficient to support that demonstration to a "proof of concept" level over the regulatory control period. This would presumably include the proposed basis for the escalation used to generate the five year price path. The potentially more detailed information appropriate for establishing the basis for reviewing the subsequent pricing proposal could then be provided at a time agreed between the DNSP and AER on condition this was suitably far in advance of the due date set down for lodging the first annual pricing proposal.

The alternative to this staged approach would be that the regulatory proposal potentially contain a full, ground-up building block cost analysis in support of the nominated mechanism and/or the indicative prices submitted under cl 6.8.2(c)(4). There are three reasons why this approach would be undesirable:

- effectively, it would mean submitting prices for the first year of the regulatory control period at least 13 months ahead of when they are scheduled to take effect — doing so appears to run counter to the obligation that DNSPs provide their first annual pricing proposal after the AER makes its distribution determination (cl 6.18.2), something the regulator must do by no later than 30 April 2009 (cl 6.11.2);
- as noted above, it would fail to differentiate the regulatory treatment of alternative and standard control services as provided for in the Transitional Rules — the administrative burden of doing so would be difficult to justify in terms of the value delivered to customers, something that the AER is required to take into consideration in making its decision (cl 6.2.5(d)(2)); and
- it would be complicated by the fact that there may soon be a price change arising from IPART's current review of Integral Energy's most recent public lighting pricing proposal.

Integral Energy therefore submits that, for the regulatory period covered by the Transitional Rules, the appropriate approach is a staged one where:

- "proof of concept" information is provided as part of the regulatory proposal;
- the detailed pricing proposal is lodged separately and close to the start of the first year of the regulatory control period as required under cl 6.18.2; and
- information to provide the basis for supporting the detailed pricing proposal is provided at a date between the two to be agreed by the DNSP and AER.

2. *Should the current mechanisms applied to each DNSP to control revenue and/or prices be maintained?*

As noted in the issues paper, there is at present limited potential for competition in the market for public lighting services. There is also limited scope for generating efficiencies by providing tariff flexibility. Further, as these services comprise a relatively small part of both the NSW DNSPs' asset bases and revenues, the administrative costs of applying more sophisticated control mechanisms would likely outweigh any benefits to customers so derived. Taking these factors into account, Integral Energy considers that the current schedule of fixed prices approach should be continued. This would also minimise transitional costs.

3. *In determining allowances for the next regulatory control period, should the AER escalate current allowances or undertake a building block analysis?*

As noted above, Integral Energy's preferred approach, consistent with the requirements of the Transitional Rules, is that the allowances be determined by a limited building block approach undertaken at the start of the regulatory control period then adjusted annually using the escalators identified as part of the regulatory proposal. The actual escalations would be contained in Integral Energy's annual pricing proposals. This would provide an appropriate combination of a periodic review of underlying costs, annually updated tariffs to reflect changes in those costs and maximise cost reflectivity while maintaining a clear and transparent process and without incurring an unduly high administrative burden.

4. *If a building block analysis is undertaken, should the AER adopt the approach to the building block analysis outlined in section 3.5.2.4 of the issues paper or use an alternative approach?*

Integral Energy agrees with the limited building block analysis proposed in section 3.5.2.4 of the issues paper. However, consistent with its comments above, Integral Energy also considers that the timing requirements for preparing and lodging even a limited building block analysis for the upcoming regulatory control period make it sensible to provide the AER with the relevant information with respect to public lighting in a staged way rather than concurrent with the regulatory proposal itself.

Integral Energy agrees that expenditure proposals for public lighting should be tested against whether they represent the efficient costs of providing those services rather than the full set of criteria and factors that would be relevant for the assessment of expenditure in relation to standard control services.

5. *What is the likely magnitude of the administrative costs of modifying current practices?*

In practice, under the ESR, each time that Integral Energy has submitted a pricing proposal, it has also provided a detailed cost buildup in order to ensure that public lighting tariffs are

appropriately cost reflective as required under IPART's guidelines. This is not dissimilar to the approach mandated under the previous "prescribed services" reviews. This practice has proven to be a substantial administrative burden. As noted above, Integral Energy:

- considers that the AER should adopt a more lighthanded approach to the regulation of public lighting services and that this should involve setting a price path over regulatory control periods combined with the opportunity to vary the price escalation annually; and
- recognises that, for the upcoming regulatory period and, as required under the Transitional Rules, to ensure consistency with IPART's current approach, it reasonable that the AER undertake a limited building block analysis to provide confidence that the proposed five year price path is appropriate.

This approach would lower the administrative burden of complying with the Transitional Rules compared with current practice and would also provide increased certainty for stakeholders.

Approach to determining materiality for possible pass through events

The Transitional Rules provide that a pass through event that has a material impact on the costs of providing direct control services may, subject to the AER's approval, be passed through to consumers. The Transitional Rules provide that the AER may publish a guideline as to the AER's likely approach to determining materiality in the context of possible pass through events. The guideline is not binding, however, if the AER's distribution determination is not in accordance with the guideline, the AER will be required to state its reasons for departing from the guideline.

Integral Energy supports a simple percentage threshold approach. This has the advantages of simplicity and transparency of application and thus minimises the related regulatory burden. Any more complicated approach would need to be justified in terms of the additional benefits that it would provide. Integral Energy is comfortable with the existing threshold test where the average annual revenue impact over the remaining life of the regulatory period must meet or exceed a specified percentage of average annual smoothed revenues.

Integral Energy also recommends that the specific pass through mechanism introduced by IPART for the current regulatory control period be retained. This mechanism provided for the pass through of events that are foreseeable, but difficult to quantify, at the time of the regulatory determination[5]. Such events are not subjected to a materiality test[6]. The specific events or types of events would need to be identified as part of the DNSPs' regulatory proposals and DNSPs would need to demonstrate that the relevant costs would not otherwise be recovered.

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5 Examples of the events included by IPART were changes to OH&S requirements governing live line working procedures and amendments to the Electrical Supply Act that seek to clarify the definition of 'electrical installation and point of supply".

6 The alternative, under the new regime, would be to subject them to a materiality test with a zero threshold.

Integral Energy's responses to the AER's specific questions appear below.

1. *Should materiality should be assessed based on the costs or revenue impact of an event during the regulatory control period?*

Materiality should be assessed by reference to the revenue impact with this term understood to refer to both the opex and capex implications of the event. This is particularly relevant in the absence of a specific contingent capex projects regime for DNSPs.

Taking this into account, Integral Energy considers that 0.5 per cent represents a more appropriate threshold than the one per cent identified in the issues paper. 0.5 per cent represents approximately $3m in opex and $30m in capex[7], both amounts that Integral Energy considers material to the NSW DNSPs' businesses in the context of potential pass through events.

2. *Should the cost or revenue impact of an event be measured on an average annual basis or as the total costs or revenue impact of the event for the remainder of the regulatory control period?*
3. *What should the costs or revenues of the event be compared with eg average annual revenues, on an individual yearly basis or the total costs or revenues measured against the total revenue requirement for the regulatory control period?*
4. *Should the total revenue requirement over the period be averaged to derive an average annual amount?*

Provided the time value of money is incorporated into the calculation of the average annual figures, there should be no difference between a comparison of annual figures and a comparison of total figures. Average annual figures are preferred to totals simply to preserve continuity with the current regulatory approach. Average annual figures are preferred to individual yearly figures as this reduces the incentive to artificially shift costs within years in order to meet the threshold.

5. *What is the likely magnitude of the administrative costs of modifying current practices?*

The administrative costs associated with current practices are small and would be expected to remain so under Integral Energy's preferred future approach.

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7 This assumes a smoothed revenue in 2007/08 of approximately $600m, a rate of return on capital of seven per cent and depreciation of three per cent per annum.