Submission to the Australian Energy Regulator

Re: Guidelines, Models and Schemes for Electricity DNSP's

Service Target Performance Incentive Scheme for Electricity DNSP

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1 Introduction

1.1 Background to UED

UED is one of the largest Victorian electricity distributors and provides services to some 600,000 end-users in Melbourne's southern and eastern suburbs. The company is well-positioned to offer views on the development of regulatory frameworks and policy, having participated in three Victorian price reviews and has contributed to several ESC consultations on the development of electricity regulatory guidelines.

1.2 Opening Comments

UED has contributed extensively to the development of amendments to the National Electricity Law and Rules over 2006 and 2007 both with its individual submissions, and through the work of industry associations. UED welcomes the commencement of amended national legislation from 1 January 2008, which opens a new era of national regulation of electricity distribution networks, and begins a transition away from individual jurisdictional regulation.

The National Electricity Rules (NER) have established a significant place for specific AER guidelines in the new framework for both transmission and distribution. UED welcomes the AER's desire to undertake early consultation on the guidelines, models and schemes required by the distribution Rules, even though the consultation is outside the formal NER process for consulting on these matters. This early start should assist both the AER and distribution businesses to focus on the key elements of the guidelines, and their role in complementing the Law and Rules.

2 Key Issues

2.1 Principles for Guidelines, Models and Schemes[1]

2.1.1 Transmission as a Model for Distribution

The issues paper's proposal to use the AER's transmission guidelines as the 'default' option for distribution is not appropriate.[2] Consistency with transmission is a useful starting point, but replication of the transmission guidelines without full consideration of the nature of the differences between transmission and distribution networks will produce sub-optimal and possibly unworkable results.[3]

Some of the economic differences between transmission and distribution which should be taken into account in developing distribution guidelines are:

- Transmission networks have few customers, and on one view do not have customers at all, but provide services to the market as a whole. They have no relationship with end-consumers. . On the other hand, distributors have a long standing direct relationship with individually connected end-users.

- Transmission investment is focused on matters such as supply security, timely augmentation and avoidance of congestion. Distribution investment is focused on reliability, market growth and geographic expansion;

- Transmission and distribution networks are operated differently. Transmission transports electricity as a bulk commodity, while distributors transport electricity to individual supply points and can offer individual services (which will increase in number as metering technology advances);

- TNSPs and DNSPs have different commercial relationships (both technical and financial) with their stakeholders.

UED considers that these differences (particularly the greater closeness of distributors to end users) require distribution guidelines which are less inclined to impose uniform methodologies and procedures for all businesses than is the case in transmission. The guidelines should enable DNSPs to submit to the AER proposals which are responsive to individual business needs and drivers, and which will at the same time contribute to the interests of consumers.

[1] For simplicity, this submission uses the word 'guidelines' to refer to these three instruments as a group, unless the context implies otherwise.

[2] For example, the issues paper states or implies that the AER transmission guidelines will apply (unless DNSPs can demonstrate otherwise) in section 2.1.2 dealing with the post tax revenue model, section 2.2.1 on the roll-forward model, section 2.3.2 on the cost allocation guidelines and section 2.4.2 on efficiency benefit sharing.

[3] A transmission guideline may be worth consideration where it is clear that a better alternative is not available for distribution or where its adaptation to distribution may produce as reasonable an outcome as any other.

2.1.2 Key Design Principles for Guidelines

UED submits that the AER should follow a set of clear working principles in the development of its guidelines for distribution. The AER should:

- Distinguish between matters required to be dealt with primarily in a price determination and matters that can be left to guidelines;
- Produce guidelines, which are complete in themselves. Matters that properly belong in a guideline should not be additionally dealt with, or even relegated to, the AER's initial framework and approach document required under cl 6.8.1 of the Rules;
- Produce incentive schemes which are to the maximum extent possible simple and effective, and which do not seek to over-elaborate the regulatory framework;
- Take a realistic view of what can be effectively implemented by guidelines in the short term;
- Note matters for possible future guidelines which require further development and consultation;
- Not adopt consistency for consistency sake, to the extent it compromises other objectives;
- Recognise that previous commitments (explicit or implicit), that impact on recovery of costs/revenue, that have been created through previous regulatory treatments need to be honoured into the future (e.g. treatments of customer contributions and tax);
- Recognise that differences in matters such as geographic areas and customer bases give rises to different histories and needs of distributors, and that therefore an appropriate service incentive mechanism for each distributor will differ depending on its circumstances.

Following is a summary of how these principles can be applied to various matters raised in the AER issues papers.

2.2 Application of Principles in this Submission

2.2.1 Distinction Between Price Determination and Guidelines

The AER should draw a clear distinction between matters which, under the Rules, should be part of its revenue and price determination and matters that can be determined by the guidelines. Where necessary, particular parts of the guidelines should be drafted generally to allow alternative outcomes, thus ensuring that the guidelines do not lock in regulatory decisions. Matters that should be treated generally include:

   – The depreciation profile to be used in the PTRM;

- How capex should be recognised in the PTRM;
- The form of control in the PTRM;
- Whether actual or forecast depreciation should be used in rolling forward the regulatory asset base;
- Specific features of a service target performance incentive scheme.

2.2.2 Guidelines Which Are Complete

The Rules require the AER to produce a 'framework and approach paper' setting out its likely approach to a forthcoming distribution determination (clause 6.8.1). The AER is obliged by the Rules to make judgements on a wide range of specified matters which will also be the subject of guidelines. Many stakeholders, including DNSPs, have been critical of this 'double guideline' approach in the Rules. But now that cl 6.8.1 is in force, UED submits that each of the AER's guidelines should be 'stand alone' and that the same subject matter should not be dealt with partly in a guideline and partly in the framework and approach.

UED observes that the issues paper does agree with the 'stand alone' principle in respect of cost allocation. The paper notes (2 2.3.) that all substantive cost allocation provisions will be in the guidelines rather than in other regulatory instruments or guidelines. UED urges the AER to apply the same 'stand alone' principle to all its distribution guidelines.

2.2.3 Simple and Effective Incentive Schemes

The guidelines will inevitably have to deal with some complex issues. However, regulatory design can be overdone, and UED observes that the issues papers have raised a number of possible features of the incentive schemes required under the Rules (efficiency benefit sharing and service target performance) which appear unnecessarily complex. Some examples are:

- Seeking excessive precision in gauging achieved capital and operating efficiencies under an efficiency benefit sharing scheme (EBSS);
- Devising methodologies to detect (presumed) distributor incentives to propose inaccurate forecasts of operating and/or capital expenditure in order to 'game' benefits under an EBSS;
- Possibly excessive monitoring and information requirements associated with the incentive schemes;
- UED also suggests that an EBSS which provides for negative carryovers will have reduced incentive properties, and in fact introduces a bias against the DNSP.

In UED's view, there will always be imperfections in any EBSS. The introduction of design elements that deal with second and third order 'efficiency' issues and/or gaming concerns creates new complexity, and will be distracting to the focus of both the businesses and the AER. A misdirected approach will result in undue costs and a tendency to focus on the wrong issues in delivering cost reductions.

2.2.4 A Realistic View of the Short Term

Given that the AER's objective is to have its distribution guidelines in place by mid-2008, UED suggests there is a limit to what can be achieved in the time available. The aim should be to get the major foundations in place and build on these over time through the guideline consultation process under Clause 6.16 of the Rules.

Certain design matters are optional for the AER under the Rules, and examples of matters which UED suggests should be deferred for the initial guidelines are:

- incentives to optimise capital expenditure (capex) under an EBSS;
- incentives to optimise distribution losses under an EBSS;
- A demand management incentive scheme.

These additional features raise complex implementation issues which would be distracting for the AER in developing and consulting on the remainder of its guidelines.

Regarding capex, UED suggests that it is likely that provision for actual capex and depreciation in an EBSS will provide a sufficient incentive to DNSPs for capex savings initially.[4]

Regarding distributor incentives for demand management and minimisation of distribution losses, these matters have been subject to extensive consultation under other AEMC and MCE/SCO processes. The consultations established that the introduction of these additional incentives into economic regulation requires a careful balance with existing incentives and service and reliability standards generally. Consequently, UED submits that the AER should observe how the basic EBSS operates in practice before incorporating additional incentives.

2.2.5 Matters Which Require Further Development and Consultation

In addition to the further development of efficiency incentives noted above, UED considers that a service target performance incentive scheme (STPIS) is also a major matter for future development.

The issues paper asks whether a national STPIS framework is feasible and canvasses a significant number of transitional issues in moving to a national scheme.

In UED's view, it is most likely that the development of a *convergent* national framework will be a long term process given the great disparity of existing jurisdictional schemes and service standards. The Rules oblige the AER to consult with the jurisdictions in developing its STPIS and it appears much will depend on the jurisdictions' willingness to wind back their existing schemes and how quickly they do so.

However, if national framework means a scheme flexible enough to adjust to existing jurisdictional schemes and allows businesses to propose individual incentive

[4] Noting that SA will be the only jurisdiction with a capex incentive in its EBSS.

arrangements particular to their circumstances, then UED agrees that a framework of this kind could be developed by the AER in the short term.

3 Post Tax Revenue Model

3.1 General

The Rules specify the high level content of the PTRM (cl 6.4.2). However, there are several individual rules which further specify the principles to be established at the time of a revenue and price determination and these principles determine the type of calculation to be performed by the PTRM. The depreciation profile is an example (cl 6.5.5).

UED submits that in all cases where the Rules provide for such a calculation, the PTRM must have the flexibility to accept any Rule-compliant outcome on that matter. In particular, where the Rules provide for the DNSP to choose between alternatives in preparing a building block proposal, the PTRM must not be hard-coded to reflect one particular outcome e.g. straight line depreciation. This would imply that the matter has been pre-determined, and presents an obstacle to the effective implementation of any alternative.

The PTRM must process inputs accurately. Given that a new version of the PTRM will be required for distribution, it is important that there be an opportunity for the logic and mathematical integrity of the new version to be tested thoroughly before it is published. UED suggests that a suitably qualified expert should be engaged to conduct an independent review of the new version and report to the AER and to industry generally.

3.2 Matters raised in Issues Paper

3.2.1 Basis and Policy Objectives

UED notes that the PTRM must be consistent with clause 11.17.2 of the Rules which is Victorian specific. The AER is required to adopt the ESC's:

- tax asset base;
- asset classification; and
- tax depreciation method

subject to any changes in tax law and rulings.

3.2.2 Consistency Between the PTRM for Transmission and Distribution Regulation

The issues paper (s 2.1.2) lists four matters that were considered by the AER in developing the PTRM for transmission:

- Depreciation profile, where the transmission PTRM has mandated straight line depreciation;

- Capex recognition, where the transmission Rules require a hybrid approach i.e. return on capital is calculated from the time of expenditure and depreciation from the time of commissioning;
- Treatment of inflation, where several recent gas and electricity reviews have identified that the former approach of estimating inflation produces a biased estimate (ie by applying the Fisher equation to the relative yields of nominal and indexed Commonwealth Government Securities (CGS)), and
- The assumptions regarding annual cash flow timing implicit in the PTRM formulation which may overestimate the revenue requirement. The AER indicated that it intended to further consider transmission timing assumptions in a future guideline consultation process.

Taking these points in turn:

Depreciation Profile

UED notes that the Rules do not bind the DNSP or the AER to a particular depreciation profile. The PTRM must have the flexibility to accept any Rule-compliant depreciation profile. It should not be hard-coded for a particular profile.

Capex Recognition

The PTRM must have the flexibility to accept either capitalisation as spent or the hybrid approach, with the choice to be made at the time of a price determination. It would be inappropriate to lock a capex recognition framework into the PTRM when this should be a matter for a revenue or pricing determination.

The hybrid treatment of capex may be appropriate for transmission where projects are generally large and expenditure may occur over two or more years before an asset is commissioned. For the majority of distributors, the bulk of capex is 'program' expenditure with little lag between capital expenditure and commissioning[5].

The revenue requirements for distribution under the hybrid approach are unlikely to be materially different from the results of capitalising all capex at the date of expenditure or using the 'as spent' approach.

The choice between approaches would need to recognise that the hybrid approach may involve additional costs in collecting and providing relevant data to the AER.

Treatment of Inflation

It is now well established that there is a bias in the observed yields for indexed CGS which, if used to forecast inflation, will produce a biased estimate.

[5] This is a good example of the differences between transmission and distribution economics.

There is a relative (downward) bias between the yield on indexed government bonds. In March 2007, NERA estimated that bias to be approximately 20bp, attributing it to structural changes in the market for government bonds that have increased institutional demand for the real government bonds at a time of limited supply of these instruments.[6] The ESC, the Reserve Bank of Australia (RBA), and the Commonwealth Treasury have all accepted that this bias exists.[7]

Based on commentary from the RBA and Treasury, the bias could be significantly greater than the 20bp estimated by NERA. For example, in October 2007, CECG recommended 2.5% as 'the best estimate of inflation over a ten year period' based on an analysis of independent forecasts of inflation.[8] The contemporaneous estimate of inflation from the yield spread on real and nominal government bonds is 3.4 per cent which suggests a bias of the order of 90bp.

This bias is relevant to and must be taken into account in estimating the CPI. In particular it is no longer appropriate to estimate inflation by applying the Fisher equation to the relative yields of nominal and indexed CGS.

Cash-flow timing (see 3.2.4 below).

3.2.3 Capital Contributions

Given their pervasiveness, there is a strong case for taking capital contributions into account in the PTRM.

The medium term goal should be that capital contributions are modelled in the PTRM in a way that mirrors their treatment for tax and so that, after tax, the DNSP obtains the full benefit of every dollar of contribution. Contributions are treated as revenue for tax. The DNSP's revenue requirement for the year in which the contributions are received is therefore increased to recover the tax payable on the contributions and on the revenue increase. The amount capitalised in the RAB is the DNSP's gross capex less contributions received. This approach best reflects the business's actual cash flow and has been adopted by the ESC.

The issues paper notes the different treatments of capital contributions in Victoria and in Queensland.[9] If a move to a common basis were to result in significant 'discontinuities' for DNSPs in some jurisdictions, then the treatment of capital contributions should involve a phased approach for those DNSPs to enable them to adjust to the change.

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[6] NERA, Bias in Indexed CGS Yields as a Proxy for the CAPM Risk Free Rate, A report for the ENA, March 2007.

[7] This issue has been dealt with extensively in the current Victorian Gas Access Arrangement Review.

[8] CECG, *A methodology for estimating expected inflation*, 26 October 2007.

[9] Where contributions are not deducted from in the RAB, and instead are netted off revenue in the year of receipt.

3.2.4 Cashflow Timing Issues

There may be a case for refining the modelling of cash flow timing but the end result needs to be reasonable, simple and transparent. Regulatory determinations have identified that the current PTRM (in which the return on capital is calculated by applying the cost of capital to the opening value of the RAB) may overestimate revenue in favour of the service provider because of the implicit assumption that capital-related costs and revenues occur at year-end whereas in fact they occur throughout the year.

Work by Allen Consulting Group (ACG) in 2002 suggests that the bias relative to precise daily modelling may be 1.5 per cent to 2 per cent.[11] The extent of any bias depends on the service provider's actual intra-year cash flows.

ACG note that the current PTRM structure implies that O&M and the associated revenue allowance are precisely matched in time.

It must also be recognised that, while a relatively high degree of precision may be possible in defining the model, the principal inputs to the calculation will always be relatively imprecise. Any quest for 'perfect' precision of inputs will add little value. UED submits that there must be a sensible balance between precision on the one hand, and simplicity and transparency on the other. ACG acknowledged this in their report.[12]

Cash flow timing is presently dealt with in a number of ways by the jurisdictions:

- IPART's approach is to model on the assumption that all cash flows occur mid year. In the example considered by ACG, modelling cash flows on that basis produces a small bias against the service provider. IPART makes a separate allowance for the cost of working capital.

- The ESC's practice is to apply the WACC to the average RAB for the year. On ACG's modelling this approach produces a somewhat smaller bias than current PTRM assumptions. This compensates for the fact that the ESC does not make separate allowance for the cost of working capital.

In its recent GasNet Draft Decision, the AER proposed to recognise the different intra-year profiles of the components of cash flow by applying 'adjustment factors' to revenue and opex and including a half-year return on capex.[13] In UED's view, this would introduce an unnecessary layer of complexity. It would reduce clarity and transparency, and appears to be an unwarranted pursuit of precision.

UED's firm recommendation is that whatever approach is taken in the PTRM to modelling cash flow timing, the same 'benchmark' assumptions and approach should

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[11] The Allen Consulting Group (ACG), Report for ACCC: Working Capital – Relevance for the Assessment of Reference Tariffs, March 2002.

[12] ACG, op. cit., p3.

[13] ACCC, Draft decision—GasNet Australia—revised access arrangement 2008–12, November 2007, pp153-154

be adopted and applied on a consistent and predictable basis. This would be analogous to the treatment of taxation and gearing in the WACC calculation, where firm-specific circumstances are not modelled. The outcome must also be consistent with the NEL pricing principles which require among other things that "a regulated network service provider should be provided with a reasonable opportunity to recover *at least* the efficient costs the operator incurs …" (emphasis added).[14]

As to what assumptions should be adopted now for the distribution PTRM, UED notes that the AER intends to consider the timing assumptions in the transmission PTRM and may amend that PTRM under the guideline amendment process in the future. UED's recommendation is that the current transmission PTRM assumptions should be retained in the distribution PTRM in the first instance, and that any changes to the assumptions should be considered for both models concurrently.

Any changes to current cash flow timing assumptions for DNSPs are likely to result in "discontinuities", at least in some jurisdictions. A phased approach may be necessary to enable those DNSPs to adjust to the change, as this is one application where differences between transmission and distribution are not required.

3.2.5 Forms of Control

The AER notes that Chapter 6A requires that the PTRM for transmission include the calculation of X, but Chapter 6 does not include that requirement for the distribution PTRM. However clause 6.5.9 of the Rules requires that a building block determination include the X factor for each control mechanism for each year. Therefore, it would be sensible to provide for X values to be calculated within the distribution PTRM.

As suggested in the issues paper, the model could be structured so that it can accommodate the range of alternatives envisaged by Clause 6.5.9 of the Rules as a "menu of choices".

3.2.6 Linkages with Information Requirements

The AER lists a number DNSP information requirements related to inputs and outputs of the PTRM. UED is not aware of further items beyond those listed, but will bring these to the AER's attention if any are discovered.

[14] National Electricity Law, s7A(2)

4 The Roll Forward Model

4.1 Basis and Policy Objectives

The AER seeks comment on whether there are provisions beyond those listed in the Rules that are relevant to developing the roll forward model (RFM) for electricity distribution, and whether the provisions may require a different approach or have different meaning in the context of distribution and transmission regulation.

UED is not aware of any relevant Rule provisions, beyond those discussed in the issues paper.

4.1.1 Consistency Between the RFM for Transmission and Distribution

The transmission RFM appears an acceptable starting point for the distribution RFM. However, there are at least three actual or potential points of difference for distribution.

The AER notes that Clause S6.2.1(e)(5) of the Rules allow for the roll-forward calculation to be based on either actual or forecast depreciation as proposed by the DNSP. If follows that the RFM must have the flexibility to accept either approach.

The transmission RFM is built around the "hybrid" approach to modelling capex required by the Rules. In commenting on capex recognition in section 3.2.2 above UED noted that, for most DNSPs, the differences between the hybrid approach and the alternative of capitalising as spent may not be material. UED submitted that the PTRM should have the flexibility to accept either approach and (to be consistent) similar flexibility is reflected in the RFM.

The PTRM must provide for capital contributions. Depending on how capital contributions are modelled in the PTRM, it is possible that some changes will be required to the RFM. The RFM must be consistent with the PTRM and, where the Rules provide for alternative approaches to any element of a calculation, the RFM must similarly accept any of those alternatives.

4.1.2 Distribution Specific Issues

UED is not aware of any features of the current Victorian determinations that require special consideration in the first round of AER roll-forward calculations.

5 Cost Allocation Guidelines

5.1 General

The AER's cost allocation (CA) guidelines represent the pre-exercise of regulatory discretion under the Rules on this particular issue.

The issues paper (s 2.2.3) notes that all substantive cost allocation provisions will be in the CA guidelines rather than in other regulatory instruments or guidelines. This is in full agreement with the general principle which UED recommended in section 2.1.2 above, and UED urges the AER to apply the same 'stand alone' principle to all its distribution guidelines.

5.2 Proposed AER Approach to Cost Allocation Guidelines

Section 2.3.2 of the issues paper gives the AER's proposed working assumptions and principles for preparation of the cost allocation guidelines. These include:

- Consistency with transmission guidelines, where possible;
- Cost allocations and attributions will be down to the level of services only, not individual price categories;
- All revenues, costs, assets and liabilities will be based on statutory accounts, not regulatory accounts;
- Regulatory requirements take precedence over statutory requirements.

UED would agree that these are workable generalities[15], but notes that the Rules also set out specific jurisdictional requirements for the guidelines.

5.3 Specific Guidelines for Victoria

The issues paper notes that under cl 11.14.3, a DNSP remains subject to the old regulatory regime for a transitional period, and only becomes subject to the current (amended) regime at the end of that period. Nevertheless, cl 11.14.6 requires a DNSP subject to the old regime to additionally comply with the current clauses 6.15.1 (comply with the cost allocation method approved by AER) and 6.15.4 (submit a cost allocation method to the AER for approval). Thus, there will be a notional 'dual' cost allocation regime for DNSPs, but only until the next distribution determination (as stated in cl 11.4.6).

This dual regime will not apply in Victoria, where provisions requiring specific Victorian guidelines have been inserted at clauses 11.17.4 and 11.17.5 of the amended Rules, as follows:

[15] Subject to UED's earlier comments about the imperative for distribution-specific guidelines.

11.17.4 Cost Allocation Guidelines

(a) In formulating the Cost Allocation Guidelines under clause 6.15.3, the AER must include guidelines specifically applicable to Victorian Distribution Network Service Providers (the guidelines of specific application to Victoria).

(b) The guidelines of specific application to Victoria:

(1) must be formulated with regard to the ESC cost allocation guidelines; and

(2) must be designed to ensure, to the maximum practicable extent, consistency between cost allocation as required by the ESC distribution pricing determination and cost allocation in later regulatory control periods.

5.3.1 Summarising Clause 11.17.4:

- There will be specific cost allocation guidelines for Victorian DNSPs;
- The AER must develop these guidelines 'with regard to' the ESC guidelines;
- The AER guidelines must 'to the maximum practical extent' ensure consistency between the cost allocation required by the (current) pricing determination and cost allocations in "later regulatory control periods".

Some implications which UED draws from the above are that:

- If there is any inconsistency between the cost allocation principles in cl 6.15.2 of the Rules and the principles in the ESC guidelines, then presumably the ESC guidelines will prevail. However, the degree of discretion available to the AER in applying its own guideline principles when there is no inconsistency is not clear;
- The reference to 'later regulatory control periods' in the Rules would seem to indicate that the AER's Victorian-specific cost allocation guidelines will not simply apply for the next regulatory period but will have application to subsequent regulatory control periods. Thus, there appears to be an indefinite locking in period for the ESC guidelines.

Clause 11.17.5

This clause sets out Victorian transitional provisions relating to the submission of a cost allocation method by a DNSP under cl 6.15.4(a) and the AER's decision to approve or not approve it under cl 6.15.4(c).

Clause 11.17.5 Modification of requirements related to cost allocation method

(a) Clause 6.15.4(a) applies to a Victorian Distribution Network Service Provider as if, instead of requiring submission of the provider's proposed Cost Allocation Method within 12 months after the commencement of Chapter 6, it required submission of the proposed Cost Allocation Method together with the first building block proposal to be submitted by the provider after the commencement of Chapter 6.

(b) The references in clauses 6.5.6(b)(2) and 6.5.7(b)(2) to the Cost Allocation Method are, if paragraph (a) is applicable, to be read as references to the proposed Cost Allocation Method submitted with the building block proposal.

(c) The AER must include in its framework and approach paper prepared for a Victorian Distribution Network Service Provider, in relation to the first building block proposal to be submitted by the provider after the commencement of Chapter 6, a statement of its likely approach to cost allocation based on the guidelines then in force.

(d) The AER:

(1) must, in deciding under clause 6.15.4(c) whether to approve a Cost Allocation Method submitted by a Victorian Distribution Network Service Provider, have regard to previous cost allocation in accordance with the ESC distribution pricing determination; and

(2) must not approve the Cost Allocation Method unless it allows effective comparison of historical and forecast cost allocation between the period to which the ESC distribution pricing determination applies and later regulatory control periods; and

(3) may, subject to the relevant Cost Allocation Guidelines, refuse to approve the Cost Allocation Method if it differs from the method previously used by the Victorian Distribution Network Service Provider.

5.3.2 Summarising Clause 11.17.5

- The Victorian DNSPs are to submit their proposed cost allocation method to the AER with their first building block proposal after commencement of amended Chapter 6, and not automatically 12 months after that date as specified in the general Rules;
- The AER's framework and approach paper for Victorian DNSPs must include a statement of the likely approach to cost allocation based on the guidelines then in force (which as noted above will be based on the ESC guidelines);
- The AER must have regard to the previous cost allocation in accordance with the ESC distribution pricing determination, and may refuse to approve a DNSP's cost allocation method if it differs from the method previously used. Additionally, the proposed cost allocation method must allow effective comparison between historical and forecast cost allocation data;
- The wording of the above provisions again implies that they will have application to all subsequent regulatory control periods.

5.3.3 Comment on Victorian Transitional Clauses

UED notes that the majority of stakeholders may, at some stage in the future, judge that the prolonged locking in of a single allocation approach is not in the best interests of a sound regulatory framework. At that point, an approach to the AEMC to amend the relevant section of the Rules could be a consideration.

5.4 Transmission Issues

The AER's transmission consultation process revealed a number of stakeholder concerns with the proposed approach to CA guidelines which also appear relevant to distribution.

5.4.1 Collection and disclosure of information

Transmission stakeholders were critical of what were regarded as excessive requirements in the proposed guidelines for information to accompany a cost allocation method.

UED considers that the possibility of excessive information requirements is even more relevant under the recent NEL amendments that provide the AER with widened information collection powers via regulatory information instruments. These powers could operate in addition to cl 6.15.3 (c)(2) of the Rules which allows the AER to specify 'the detailed information that is to be included in a Cost Allocation Method'. For example, under section 28K of the NEL, the AER may require additional information to verify compliance with requirements for allocation of costs between electricity services under (i) the Rules; or (ii) a revenue or pricing determination.

UED acknowledges that cost allocation is a detailed exercise, and that sufficient information must accompany a DNSP's cost allocation proposal. But UED also submits that the design principles recommended in s 2.1.2 above should lead the AER to (a) be as economical as is possible with its information requirements; (b) state them all upfront in the guidelines; and (c) state in the guidelines the specific circumstances under which the AER might require further clarification of information submitted, rather than relying on its general powers to make subsidiary requests.

5.4.2 The use of Avoided Cost

The proposed initial transmission guidelines did not favour the use of avoided cost as a cost allocation method. The AER saw avoided cost as problematic, stating that there were potential difficulties with the concept under a full allocation approach since avoided cost attributes costs to one cost centre irrespective of whether the cost is shared. In these circumstances, the AER considered it prudent regulatory policy to require assurances from TNSPs that adequate safeguards were in place to prevent cross subsidisation of costs. The AER decided to allow the use of avoided cost attribution, but only with the AER's approval.

UED considers that concerns with cross-subsidisation under avoided cost should be minimal in the distribution context. Clause 6.2 of the Rules already provides for a detailed process to classify distribution services, and considerable weight is given to the previous regulatory approach used in this matter (which would have entailed a corresponding allocation of costs). Moreover, cl 6.2.8 provides that the AER may make guidelines on the classification of services, including 'the calculation of stand-alone, avoidable and long-run marginal costs'.

Economic efficiency recognises that efficient costs may lie between stand-alone and avoidable, and the potential use of the latter methodology should not be discouraged or marginalised by the AER guidelines.

6 Efficiency Benefit Sharing Scheme

6.1 Similarity with transmission

The issues paper proposes that an EBSS applied to operating expenditure (opex) for distribution should be the same as that for transmission, unless there are significant differences in the incentives facing DNSPs compared to TNSPs.[16]

The issues paper proposes a scheme which requires:

- efficiency gains (or losses) to be carried over for five years;
- the efficiency gain for any year to be incremental - the difference between the under-spend in that year and the under-spend in the preceding year;
- the scheme to apply symmetrically to gains and losses (positive and negative carryovers);
- the focus to be on controllable costs so that forecasts and/or out-turns can be adjusted for changes in capitalisation polices and changes in demand vs forecast;
- allowance for some classes of uncontrollable costs to be excluded (proposed by the DNSP and agreed with the AER in advance);
- allowed increases/decreases for pass-through events to be excluded.

UED notes that the above framework for an EBSS is similar to that operating in Victoria and SA. Generally, UED has been satisfied with the operation of the carryover scheme in Victoria, but observes that a number of difficulties and anomalies had to be overcome in the early design of the scheme, and draws these to the AER's attention in the following section.

6.2 Properties of Incentive Schemes

Initial regulation in Victoria used a simple price path as a means of encouraging distribution network savings, whereby DNSPs could retain opex savings made within the regulatory period.

In the 2001 price determination, the ESC discerned a theoretical (but not proved) incentive for DNSPs to defer savings in the later years of a regulatory period in order to benefit from greater savings in the next period. The ESC therefore introduced the carryover mechanism, which it regarded as better providing a continuous incentive for DNSPs to seek cost savings[17].

[16] Noting that the five requirements for an EBSS set out in cl 6.5.8 of the distribution Rules are similar to the requirements in cl 6A.6.5 of transmission.

[17] Cl 6.5.8 (c)(2) of the Rules also requires a continuous incentive to reduce expenditure.

UED notes that in moving from a simple price path within a single period to a more complex carryover scheme, information requirements inevitably expand. For example s 2.4.10 of the issues paper anticipates that DNSPs will have to provide similar information to that required under the transmission guidelines, namely:

- evidence of no 'cost shifting' between regulatory periods;
- details of changes in capitalisation policies in the current period;
- adjustments for changes in regulatory responsibilities in the next period; and
- evidence for consistency between forecast demand growth in the next period and demand in the current period.

In UED's view, these additional monitoring provisions can reduce business incentives to seek efficiencies. Excessive monitoring can end in debate about what is 'normal' versus 'exceptional' expenditure for a particular period, and finally result in the exercise of the regulator's judgement without establishing any clear principle for the business.

Further, the ESC carryover mechanism was applied to all businesses regardless of whether it was the best scheme to encourage savings for a particular business. No flexibility was built in for businesses to demonstrate that alternatives may have produced better results. For example, a simple price path using actual rather than forecast depreciation can provide an uncomplicated, low cost but effective incentive to achieve within-period capex savings.

This leads to the issue of risk profiles for individual DNSPs. The appetite for risk-taking may vary substantially between businesses. If a business is relatively entrepreneurial, it may well be prepared to accept a higher risk EBSS which offers it higher rewards to seek and achieve expenditure savings. At the same time, because the business is accepting the risk that the outturn may be negative (by not being 'adjusted' for a number of extraneous issues) then there should be little or no regulatory investigation of the outturn.

Conversely, if a business opts for a low risk/lower return EBSS, then it would have to accept a degree of regulatory inquiry into its costs. Nevertheless, as discussed below, regulators should not seek to adjust outcomes in order to attain excessive precision in gauging efficiencies.

6.3 Excessive Precision in Gauging "Efficiencies"

Although the issues paper cites the 'efficiency gains' which are 'rewarded' by an EBSS, this terminology is inaccurate and does not describe what is really happening.

With a carryover mechanism, businesses are being rewarded for underspending compared with forecast. This may or may not result in a level of efficient costs. If the forecast costs were certain of being 100 per cent efficient, then underspending would result in less than efficient costs. This would be contrary to the requirement in section 7A of the NEL that a service provider be afforded a reasonable opportunity to recover at least the efficient costs in providing network services. Conversely, an increase in spending above forecast is not necessarily evidence of inefficiency.

There is a degree of imprecision (generally acknowledged) in arriving at forecast efficient cost levels. An EBSS that purports to identify service provider efficiencies to an excessive degree of precision would be futile. For example, UED sees little value in the issues paper proposal that distribution should follow transmission by requiring service providers to demonstrate that there has been no evidence of 'cost-shifting'[18]. There are already extensive tests listed in cl 6.5.6 of the Rules for the regulatory assessment of opex.

6.4 Symmetric Carryover

The issues paper proposes (s 2.4.2) that efficiency gains and losses would be applied symmetrically, ie there will be both positive and negative carryovers. UED submits that to include this feature in an EBSS is not 'symmetrical' and that it is in fact biased against the DNSP for the following reasons:

- If the regulatory process has to a reasonable extent projected 'efficient' costs then the system is biased since the opportunities for efficient under-spending must be smaller than the potential for over-spending;
- As noted above, it is simplistic to interpret under or over spending (relative to what is only a forecast) as an accurate measure of efficiency or inefficiency;
- A negative carryover from one period to the next amounts to a double penalty – over-spending in the first instance goes directly to the DNSP's bottom line. By carrying over an aggregate negative to the subsequent period, the DNSP's revenue allowance would be less than the assessed efficient requirement. This would be contrary to the NEL requirement that a service provider be afforded a 'reasonable opportunity' to recover at least the efficient costs in providing network services.

6.5 Drivers of an EBSS

In UED's view, the emphasis should be on establishing the correct signals of an EBSS rather than excessive refinement of the scheme. One clear example is the proportion of benefits attributable to service providers.

The AER's analysis in transmission indicated that a five-year carryover results in a benefit-sharing ratio of about 30:70 between the service provider and network users. UED observes that recent low WACC figures in regulatory decisions could have reduced the low service provider ratio even further – perhaps to 20/80. This appears to represent neither a strong incentive or a "fair sharing". Given that the AER will be dealing with some businesses entering their fourth regulatory period (eg Victoria) it appears plain that additional efficiencies will be harder and more costly to achieve. An increase in the carryover period – or some equivalent technique to increase the proportion of benefits attributable to service providers closer to 50/50 – should be

[18] First dot point in section 2.4.10

investigated in the light of the additional investment which will be dependent on longer term returns.[19]

6.6 Possible Additional Elements of an EBSS

The issues paper notes that the distribution Rules allow the AER to extend an EBSS to incorporate allowances for capital expenditure (capex) and/or distribution losses.

Clause 6.5.8 (c) requires the AER to provide a continuous incentive to reduce capex, but not losses. The other requirements of clause 6.5.8 (c) apply equally to opex, capex and losses.

6.7 Capital Expenditure

In its discussion of capex incentives, the issue paper focuses on the incentives that service providers may have to:

- capitalise opex inappropriately in order to achieve an opex efficiency benefit (cl 6.5.8 (c)(4));
- produce contrived capex forecasts which (as a result of the inherent 'lumpiness' of capex) can provide service providers with unjustified financing benefits within the regulatory period; and
- contrive to defer capex (achieving a seeming 'efficiency' within the regulatory period) and then propose the same deferred projects in the next period.

In UED's view, these presumed incentives are more relevant to the design of the regulatory framework overall than to the design of a capex incentive scheme.

If the overall framework provides adequate criteria for the assessment of forecast capex and opex, then there should be no need for an EBSS to require another round of detailed investigation into these costs. This reinforces points made in section 6.3 above that there is a substantial degree of imprecision in arriving at forecast efficient expenditure levels. Attempts to design an EBSS that purports to identify service provider efficiencies with greater precision than 'reasonable forecasts' will permit are meaningless, and in fact will negate any incentive properties of an EBSS.

In this regard, UED wishes to respond to certain capex forecasting issues raised in the issues paper.

[19] In its final decision on the transmission EBSS, the AER noted that it would reconsider the appropriateness of the carryover period (and thus the sharing ratio) for TNSPs if presented with evidence that a TNSP is approaching the efficiency frontier.

6.7.1 Inappropriate capitalisation

This should not be an issue for an EBSS, given the ex ante nature of regulatory expenditure assessment and the likely within-period submission of reporting information, including any changes in capitalisation policy.

6.7.2 Incentives to Contrive Forecast Capex or Defer Capex

In UED's view, the concept of 'contrived capex' should not be an issue for an EBSS. It is a matter for the ex ante assessment of capex at the pricing reset. Given that the Rules require extensive testing of forecast capex (cl 6.5.7), including capex/opex substitution (6.5.7(e)(7)), the clear presumption should be that any capex forecast submitted by a DNSP will have been thoroughly tested before it is incorporated into an EBSS.

Regarding 'deferred' capex, UED agrees that capex can be deferred, but that:

- given the ex ante review of capex, any scope for significant deferral should be limited; and
- to the extent that capex can be deferred as a result of efficiencies achieved by DNSPs, this will increase economic efficiency[20] and should not be discouraged by an EBSS, even if a DNSP were to gain a measure of benefit at the same time.

UED submits that as long as the benefits from capex deferral attributable to DNSPs are not excessive, then potential deferral should not be an argument against including capex in an EBSS.

However, this still leaves open the question of whether capex should be included in the AER's first EBSS.

6.7.3 Should Capex be Included in an EBSS?

The issues paper cites divided views amongst regulators as to whether a capex component of an EBSS must complement an opex component (s 2.4.6). The ESC has a view that capex deferrals could skew the benefits of the scheme in favour of DNSPs, while ESCOSA has a view that inclusion of capex provides neutral incentives between seeking capex and opex efficiencies.

As noted, UED regards the issues paper's concerns with including capex in an EBSS as clearly overstated. Nevertheless, UED considers that a much more thorough consideration of effective capex incentives is required. Deferral of a capex incentive scheme should provide stakeholders with sufficient time to consider effective alternative approaches, and should avoid the danger of a hastily devised, but over-elaborate capex scheme, in the initial guidelines.

The issues paper notes (s 2.2.2) that the AER has a disposition to use actual depreciation to be rolled into the RAB (as in transmission) rather than forecast

[20] By reducing the call on required capital resources within the period.

depreciation.[21] UED suggests that it is likely that provision for actual capex and depreciation in the roll forward of the RAB could provide a sufficient incentive for DNSPs to seek capex savings in parallel with the initial EBSS.[22]

6.8 Demand Side Response Issues

The Rules provide that the AER may develop a demand management incentive scheme 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 (cl 6.6.3).

UED notes that the AER does not propose to develop a demand management incentive scheme under cl 6.6.3 at this time. This is a realistic option in UED's view, given the very considerable complexities of implementing the EBSS and the STPIS (and gauging their operating effectiveness) before even considering whether a demand management scheme is warranted. The immediate issue is for the AER to assess whether and how it can implement clauses 6.5.8 (b) and 6.5.8 (c)(5) to give due weight to DSR and DG considerations.

In their April 2007 paper for the MCE/SCO, NERA/Allen Consulting argued that the lack of an efficiency benefit sharing mechanism for capex was a 'moderate' barrier to the uptake of demand side response (DSR) and distributed generation (DG). As a result, the consultants recommended that the Rules should allow (but not require) the AER to include a capex efficiency incentive mechanism in the building blocks, and also require the AER to consult on any DSR and DG incentives in any proposed opex or capex incentive scheme.[23] These recommendations have since been reflected in clauses 6.5.8 (b) and 6.5.8 (c)(5) of the Rules.

The NERA/Allen papers were subject to extensive consultation by MCE/SCO and a significant recommendation from the Energy Networks Association was that:

> The fair sharing of efficiency benefits is a key component of the analysis of the relative costs and benefits of pursuing demand management. The development of appropriate mechanisms to allow this, as well as ensuring that incentives to pursue demand management are balanced across the regulatory period, requires further consideration. [24]

UED notes that the very complex issue of balancing all regulatory incentives against the requirement to take due account of DSR and DG opportunities has not been

[21] Although this is a discretionary matter in distribution but not in transmission.

[22] UED would be most concerned if the lack of a capex efficiency carryover induced the AER to conclude that there was an incentive to over invest and consequentially find it necessary to adopt a regime of ex-post reviews of capital expenditure. Such an approach would greatly increase the risk of regulatory error, and stifle innovation and necessary investment..

[23] NERA Economic Consulting, Distribution rules review – network incentives for demand side response and distributed generation, April 2007, p 84.

[24] Energy Networks Association, Network Incentives for Demand Side Response and Distributed Generation – Response to NERA Economic Consulting Papers, 25 May 2007, p 13

pursued in any depth since the initial NERA/Allen consultation of May 2007. The ENA recommendation at that time was to further investigate these important matters via a Rule change process[25]. UED considers that in view of the paucity of necessary analysis and data, including illustrative modelling under various regulatory scenarios, the AER should defer consideration of capex and other incentives as they may relate to DSR and DG until a much firmer analytical base has been established and consulted upon, either under a guideline consultation process or a Rule change process, or a combination of both.

6.9 Distribution Losses

NERA/Allen addressed the optimisation of distribution network losses in their August 2007 papers and recommended that the Rules should allow (but not require) the AER to develop an incentive mechanism for loss factor management guided by cost/benefit considerations.[26] Clause 6.5.8(b) of the Rules permits an EBSS for distribution losses.

NERA/Allen cited two regimes to optimise losses (which the AER has noted in its issues paper):

- the IPART scheme of recognising the economic value of investments in the regulated asset base by reference to the wholesale market price of avoided energy losses; and
- the Ofgem scheme of setting loss factor targets, and rewarding or penalising DNSPs for over and under performance relative to these targets.

NERA/Allen noted that the Ofgem scheme was similar to the approach used by the ESC for Victorian gas distribution. However, the ESC did not implement a loss incentive scheme in the 2006 electricity price review since it considered the level of losses and accuracy of forecast to be appropriate.

The issues paper observes that before implementing any EBSS for losses, the AER would need to assess whether the current level of losses is significantly greater than the economically efficient level. UED considers this to be a reasonable approach, since (in line with the NERA/Allen recommendations) the benefits of a loss optimisation scheme must outweigh its costs. A parallel principle is included in cl 6.5.8 (c)(1) of the Rules which requires that the benefits to consumers from an EBSS are sufficient to warrant a reward or penalty under the scheme for DNSPs.

As to whether either the IPART or OFGEM schemes would be appropriate, UED notes that both schemes raise issues of valuation and measurement.

[25] UED notes that there is a proposed AEMC Rule change process dealing with demand side issues in train at the moment, although at a very preliminary stage.

[26] NERA Economic Consulting and The Allen Consulting Group, Network planning and connection arrangements—national frameworks for distribution networks, August 2007, p. 106.

6.9.1 IPART

IPART noted a number of issues relevant to its scheme as follows:

- the NPV of losses saved as a result of the investment requires estimation;
- in principle, this value should be based on the long run marginal cost of generation but this is not directly observable.

To help resolve this valuation issue, the Tribunal established a working group in 2004 to identify:

- a framework for calculating the amount of energy loss avoided as a result of the investment;
- a methodology for calculating the per kWh value of energy loss based on an observable historic average of national pool prices for NSW; and
- how DNSPs could incorporate the estimates of the value of loss reductions into their capital expenditure planning assessment processes.

IPART's basic aim was to identify a methodology for assessing the value of loss reduction investments which was consistent with its approach to assessing the prudence of these investments as part of the roll forward of the asset base.[27]

UED would expect that the AER would have to develop a similar framework under a national scheme taking into account the factors identified by IPART and applying them to DNSPs in various jurisdictions. This could be an information-intensive exercise for the AER. Also, as noted by NERA/Allen, to retain ongoing neutrality with other network incentives, there may need to be a later adjustment to account for the difference between the cost and value of avoided energy loss.[28]

6.9.2 Ofgem

The Ofgem scheme appears to be relatively straightforward and is described by Ofgem as follows[29]:

- reported losses should simply reflect the difference between the estimated volume of electricity entering and exiting the system;
- the losses target will be fixed for the five years of the price control;

[27] IPART, NSW Electricity Distribution Pricing 2004/05 to 2008/09, Final Report, p 105.

[28] NERA Economic Consulting and The Allen Consulting Group, Network planning and connection arrangements—national frameworks for distribution networks, August 2007, p. 105.

[29] Office of Gas and Electricity Markets, Electricity Distribution Price Control Review: Final Proposals, November 2004

- the losses incentive rate will be fixed for the duration of the next price control period;
- an explicit adjustment to the level of reported losses may be made to reflect the impact of distributed generation;
- expenditure on low-losses equipment will be treated as any other capex, i.e. it will be eligible for inclusion in the [regulatory asset base] and subject to the rolling capex incentive; and
- [distribution businesses] keep the benefit and penalties of performance against the losses target for five years through the application of a rolling retention mechanism.

An obvious issue for any target scheme is setting a realistic target in the first place, although this may already have been considered to some extent in evaluating whether existing losses are efficient.

In addition, the AER issues paper notes that network design and operation are not the only factors affecting losses; other influences include consumer demand and weather factors. Consistent with UED's earlier discussion on incentives, reliance on a carryover scheme can require a very significant increase in information requirements to account for atypical outturns, since the latter can be matters of considerable debate. The scheme would need to strike a balance between information refinement and providing a realistic incentive to reduce losses. This further indicates the need for the AER to undertake adequate data collection and analysis, together with wide consultation, before developing a loss optimisation scheme.

7 Service Target Performance Incentive Scheme (STIPS)

7.1 Purpose of STIPS

UED agrees with the issues paper that the purpose of a STPIS is to balance any incentive to reduce expenditure with the need to maintain and improve service quality for customers through establishing a direct financial link between revenue and service standards for regulated services.

7.2 Requirements of Rules

In developing a STIPS, the AER is required under cl 6.6.2 to:

- Consult with the authorities who administer jurisdictional electricity legislation;
- Since the STIPS would operate concurrently with jurisdictional legislation, the AER is required to ensure that its service standards and targets, including guaranteed service levels (GSLs) do not 'put at risk' the DNSPs' compliance with the relevant service standards, targets and GSLs set in jurisdictional legislation.

UED agrees with the generalisation in the issues paper that s-factor schemes are aimed at maintaining/improving average network performance, whereas GSL schemes are aimed at maintaining service to the worst served customers.

7.3 National Framework

7.3.1 Current Practice

UED notes that jurisdictional practice varies widely. For example, only Victoria and SA have ongoing s-factor schemes, which are service target schemes integrated into economic regulation. A feature of such schemes is that they place regulated revenue at risk if the specified targets are not met. All jurisdictions have GSL schemes, which set threshold levels of performance for individual customers. However, the schemes are implemented legislatively in diverse ways, and the services subject to the scheme also vary considerably. Most jurisdictions require DNSPs to collect and provide service quality information, which may be published.

7.3.2 A common approach?

The issues paper asks whether a common approach is feasible under a national framework (s 2.3) and it appears that the AER is contemplating 'best practice' schemes which will somehow take account of the relative maturity of each of the jurisdictional schemes.

Whether a 'national framework' can be developed depends very much on what AER intends the purpose of such a framework to be.

If such a framework means a common (inflexible) approach to setting service incentives regardless of the circumstances and the risk/rewards faced by a particular business, then this outcome is unlikely to be achieved for the medium term. Given the great disparity of existing jurisdictional schemes and service standards, a convergent national approach will depend very much on the jurisdictions' willingness to wind back their existing schemes and how quickly they do so.

However, if national framework means one flexible enough to allow each DNSP to propose an incentive arrangement taking account of:

- the specific jurisdictional service performance scheme to which it is subject;
- the geographical and market circumstances of its network; and
- the risk/reward preferences of the business

then such a framework may be possible.

Where service standard regulation has been established outside the economic regulatory framework such as in NSW[30], a national framework would have to adapt by having significantly more muted incentive signals. In jurisdictions where the service incentive scheme is tied to economic regulation (Victoria and SA) developing a consistent national approach is likely to be more feasible. However, service incentive schemes require collection of key information about historic service performance and customer willingness to pay, which raises issues of data availability and comparability amongst jurisdictions.

7.4 Public Reporting, GSLs and S-factor

UED is comfortable that a scheme that involves public reporting, s-factors and GSLs can work satisfactorily, both for the businesses and in achieving the intended public policy outcomes. However, existing schemes of this kind could be improved by providing flexibility for individual businesses to propose an incentive arrangement within the scheme that reflects the DNSP's geographical and market circumstances and allows the business to manage its risk/reward preferences.

7.4.1 Public reporting schemes

UED agrees that public reporting delivers information so that both the regulator and the wider public are properly informed about service reliability, and that comparative reporting can act as an incentive to improve performance. Importantly, public reporting also inhibits the propagation of misinformation about service quality.

Performance measures should provide a complete indication of service performance, but as noted in the issues paper, there are geographical, environmental and other factors which affect comparison between businesses, and these must be allowed for.

[30] In NSW reliability standards are established by Regulation under the Electricity Supply Act as part of the technical regulation and licensing arrangements

7.4.2 GSL schemes

GSLs signal a need for improvement at the localised level (in general, the worst-served customers) and give customers assurance that repeated poor performance is recognised by a penalty payment.

UED agrees that the DNSP should automatically make a GSL payment to customers once it is clear that the payment is due (ie the customer should not have to apply). However, the cost of setting up or amending such a scheme may be significant, and this must be recognised in the DNSP's cost base as part of any pricing determination.

Given that all jurisdictions have GSL-type schemes in place, the development of a national framework involving some elements of commonality should, in concept, be feasible. Nevertheless, there appear to be several complexities:

- As noted earlier, the jurisdictional schemes are implemented legislatively in diverse ways, and the services subject to the schemes also vary considerably;
- In some jurisdictions, customer payments are made automatically, while in others payment is on request;
- In some jurisdictions, service standards and targets are mandated in non-economic or technical regulations and these standards have been taken up into the jurisdiction's GSL schemes;
- GSL schemes in Victoria and SA operate in parallel with s-factor schemes.

The issues paper (s 3.2) observes that the Rules apparently permit the AER to develop a national GSL scheme in addition to the jurisdictional schemes, subject to the requirement under cl 6.6.2 (b)(2) of the Rules that such a scheme must not 'put at risk' the DNSPs' compliance with the relevant GSLs set in jurisdictional legislation.

UED submits that if a jurisdictional GSL scheme is already in place, then in the short/medium term the AER should not need to develop an additional layer of regulation. Over time, it would then be possible for the jurisdictions to wind down their schemes, subject to satisfactory resolution of any issues they may have with regard to service levels.

UED cannot at this stage offer a definitive view on how such resolution can occur, except to observe that:

- It must involve the AER negotiating and agreeing with the jurisdictions on any changes to their current GSLs. UED also notes that industry should be consulted in this process;
- Any such negotiation and resolution will take time;
- In the meantime, and as recognised in the issues paper (s 9.3), there will be a number of transitional issues to be addressed;

- UED welcomes assurances in the issues paper (s 9.3) that DNSPs subject to existing GSL schemes should expect these to continue in the transition to any full national approach.

7.4.3 S-factor schemes

The issues paper notes that s-factor schemes operate symmetrically, offering rewards and penalties linked to DNSP revenue via an additional factor incorporated in the price control formula.

The issues paper also notes that s-factors can take two forms:

- Target based, where actual performance is measured against a current or previous year target, and then weighted appropriately into the price control formula (this applies in Victoria); and

- Performance based, where (as in SA) performance bands are defined around the target and rewards/penalties accrue according to which performance band is attained in practice.

In UED's view, a target-based scheme is considerably easier and less complex to administer, since it requires potentially less subjectivity in defining the relevant performance 'bands'.

A well designed s-factor, coordinated with a GSL scheme and public information, can provide the appropriate tension in incentives between individual service quality and overall cost reduction. Key design issues are:

- an appropriate choice of service measures;

- the benchmark levels of service; and

- the strength of the incentives.

These are matters which the DNSP should be able to incorporate in its revenue and pricing proposal for approval consistent with the Rules, given some broad overarching guidance from the AER in its STPIS.

7.4.4 Appropriate measures for s-factor schemes

The issues paper notes that s-factor scheme would need to rely on standard measures of service quality that are clearly defined, reliable and auditable.

The issues paper observes that there are generally three aspects of service quality:

- Reliability;

- Quality of supply; and

- customer service.

7.4.5 Reliability

In UED's view, a national s-factor scheme cannot be implemented overnight. There must be an adequate history for each service measure to be measured and tailored to each DNSP before it can be included in an s-factor scheme. This is an obvious requirement for such 'traditional' reliability measures as SAIFI, SAIDI, CAIDI and MAIFI.

The issues paper (s 4.1) suggests that most jurisdictions should have sufficiently accurate historical data to set targets for these indicators (except MAIFI). Nevertheless, UED would expect this observation to be conclusively demonstrated by the AER before it attempted to develop a national framework. It would not be in the interests of improved service quality to develop a framework and populate it with inadequate data. The issues paper itself notes the many qualifications that need to be made to indicators of 'average network performance' before meaningful inter-business reliability comparisons can be made.

7.4.6 Quality indicators

The issues paper observes (s 4.2) that no s-factor scheme in Australia includes a quality of supply measure, and that there are no commonly used indicators for measuring the average quality of supply to customers.

In UED's view, measurement of service quality has not been undertaken in a meaningful way to date. Until this occurs, and the trade-off between cost and quality improvement can be reliably quantified, quality should not be included as part of the service measures in an s-factor scheme.

One option to avoid undue complexity in a STPIS is to simply account for service quality through a GSL scheme.

7.4.7 Customer service

The issues paper lists a number of potential customer service indicators (s 4.3) but notes that only one – call centre response – has been included in the SA and Victorian schemes. This suggests the potential difficulty in objectively measuring customer service requirements.

As with the issue of quality of supply above, it may be best to avoid undue complexity in an s-factor scheme, and to simply account for customer service quality through a GSL scheme.

7.4.8 S-factor rewards and penalties

UED agrees with the issues paper that there are several issues in selecting appropriate rewards and penalties to apply in an s-factor scheme, and that the relationship between cost of service improvements in reliability and customers' willingness to pay may be difficult to establish. Each measurement approach (marginal cost, economic loss and customer surveys) poses individual problems. In UED's view, regulators have simply adopted practical approaches to setting rewards and penalty levels, evident in the fact that many approaches have been tried over time.

Nevertheless, rewards/penalties must be strong enough to provide genuine incentives, but should neither encourage over-investment nor over-penalise the business.

UED would expect that the setting of reward and penalty levels would respond to better and more relevant information emerging over time.

7.5 Risks and exclusions

7.5.1 Risks

The issues paper notes a number of risk-mitigating devices used in its transmission STPIS, namely;

- 'Deadbands', where performance variations around a target have no effect;
- An overall financial penalty limit; and
- 'Collars', which remove outlier performance.

UED acknowledges that these devices can remove some risk on a DNSP, but that they should be considered in the light of historical data for a particular DNSP. If there are unacceptable risks to a DNSP from not including such devices, such as historically very asymmetrical and/or volatile outcomes, then these devices should be capable of being proposed by the DNSP as apart of its pricing proposal.

7.5.2 Exclusions

Exclusions are essential to ensure that DNSPs are not inappropriately penalised in the case of extreme events which they cannot be expected to manage, or respond with optimal action in order to avoid supply outages. The issues paper notes two broad approaches:

- Qualitative measures, such as defining a 'rare' event. As noted, such a definition can be difficult and contentious;[31]
- Quantitative measures, which are statistically based. The issues paper lists a range of benefits of such measures, including:
  - Ease of use;
  - No need to investigate particular events;
  - Ease of calculation; and
  - Consistency in reporting.

UED favours a statistical technique along the lines of that developed by the US Institute of Electrical and Electronics Engineers Standard IEEE 1366-2003 (noted in s

[31] As past Victorian experience has demonstrated.

8.2 of the issues paper). It is to be preferred over that which the ESC adopted for the 2006-10 Victorian EDPR.

The ESC's more recent approach is in UED's view significantly more difficult to quantify, and has led to contention with Victorian DBs that would have been avoided under the IEEE approach.

7.5.3 Limiting the contribution of an excludable event

In the event that an exclusion threshold has been exceeded, the issues paper notes three options for the regulator:

- Remove the event from the incentive scheme;
- Limit outcomes to the threshold value; or
- Substitute a value in the performance measure – eg average performance.

UED submits that removal of the event provides the simplest and most generally useful solution.

7.6 Transitional issues

The issues paper (s 9) sets out a range of transitional issues that would be relevant to the AER in developing a national STPIS. Given the complexity of possible issues, UED observes that this is unlikely to be an exhaustive list. Three broad categories of issues are noted:

7.6.1 Issues for jurisdictions currently without an s-factor scheme

- Availability of data. The issues paper notes that date limitations may influence the AER's ability to implement exclusion criteria for service measures;
- Data accuracy. Where data is unavailable, there are estimation issues. Improved reporting would likely show a deterioration in performance;
- There are difficulties where jurisdictions already have mandatory performance conditions for electricity supply. An s-factor scheme and the existing scheme may be viewed as substitutes;
- There are possible perverse incentives for DNSPs from the concurrent operation of jurisdictional and national schemes.

Section 7.3.2 above raised several matters pertinent to a national scheme. In UED's view, given existing jurisdictional diversity, a narrowly contrived and short term scheme cannot produce effective service incentives for DNSPs. A national scheme must recognise and adapt to:

- Jurisdictional service schemes, targets and preferences;
- The geographical and locational features of businesses within jurisdictions;
- Different market features;

- Different risk/reward preferences of business; and
- Most importantly, the lack of relevant information to support a workable EBSS for the jurisdiction.

Additionally, UED considers that the AER would need to develop objective criteria to evaluate the adequacy of existing jurisdictional schemes.

7.6.2 Issues for Jurisdictions Currently with an S-factor Scheme

UED agrees that in jurisdictions where the service incentive scheme is tied to economic regulation (Victoria and SA) developing a national approach is likely to be more feasible. UED considers these schemes to be a good foundation for the AER to build upon, but would caution against making significant and too rapid changes to them. Some factors that would be important are:

- Ensuring that an adequate history of data is available to support any proposed changes in service measures;
- Ensuring that any change to the structure of existing mechanisms resulted in equal or improved incentives to DNSPs compared with existing schemes;
- Appropriate transitional arrangements to ensure DNSPs were not disadvantaged by any proposed changes to existing schemes.

7.6.3 Transitional issues in relation to GSLs

The issues paper notes that the AER is obliged to consider current GSL schemes in jurisdictional arrangements when assessing whether to develop a national GSL scheme, and there would be a range of transitional issues to be addressed. As noted, UED welcomes assurances that DNSPs subject to existing GSL schemes should expect these to continue in the transition to any full national approach.