9 February 2010

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

DRAFT STATEMENT OF APPROACH – REQUEST FOR ADVICE ON COST RECOVERY FOR MANDATED SMART METERING INFRASTRUCTURE

Origin Energy Retail Limited (Origin) welcomes this opportunity to respond to the AEMC's (the Commission's) Draft Statement of Approach (DSoA) to the cost recovery of mandated smart metering infrastructure (mandated SMI). Origin is Australia's largest integrated energy provider and a significant retailer of natural gas, electricity and LPG, with more than 3 million customers nation-wide.

Origin is keenly aware of the impact SMI (or AMI) technology will have upon its small customers (residential and small to medium enterprises) over the next decade. In our view, policy and rule makers need to ensure the cost of such infrastructure is provided at efficient cost consistent with the market objective and is as flexible as possible to accommodate future technology improvements, contestability of SMI and product innovation.

Appropriate form of regulation and cost recovery for SMI

Origin responds to specific matters identified in the DSoA in the attachment below, however, we take the opportunity here to set out some issues we believe the Commission needs to be cognisant of in assessing the regulatory framework for the regulation of SMI costs.

There is a view professed by some stakeholders that the nature of SMI technology presents significant risk and uncertainty to distribution network service providers (DNSPs, if they are charged with the responsibility to deploy SMI), and that this in turn should drive the choice of a cost-recovery framework.

However, the National Electricity Law requires that a jurisdictional Minister implement a mandated SMI roll-out when (and only when) the benefits outweigh the costs of such a mandate. In Origin's view therefore, any future Ministerial determination with respect to SMI pilots and trials and/or a mandatory geographic basis should:

- Not be committed to until robust cost benefit analysis has been undertaken under the Minister's direction;
- Supported by clearly targeted SMI pilots and trials which are designed with the objective of clearly defining, and then eliminating or reducing uncertainty if such risk is significant; and
- More generally, the focus of the cost recovery assessment should be in the first instance, on chapter 6 of the NER as the mechanism to recover costs of either SMI pilots and trials or a mandated geographic roll out of SMI. Chapter 6 is a well

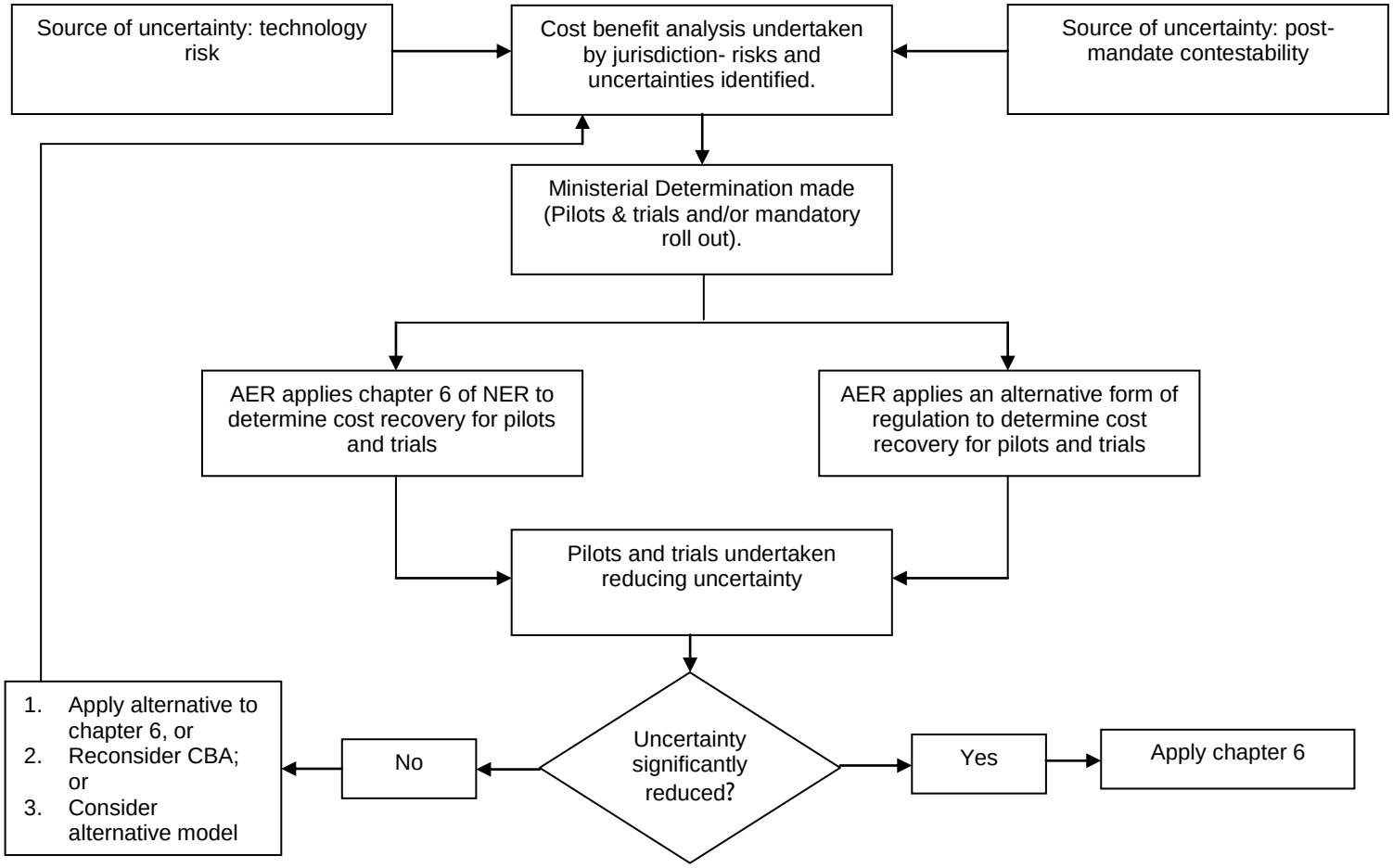
Origin Energy Retail Ltd ABN 22 078 868 425 • Level 21, 360 Elizabeth Street Melbourne VIC 3000
GPO Box 186, Melbourne VIC 3001 • Telephone (03) 9652 5555 • Facsimile (03) 9652 5553 • www.originenergy.com.au

established and tested approach to assessing cost recovery in a regulated monopoly business, and should be relied on unless there is clear and compelling reason to do otherwise.

Origin would also highlight, in the alternate, the difficulties and risks to consumers of the AER moving to an alternative approach for regulation of a monopoly service. Of these the major policy concern arises from the granting of an exclusive monopoly over a hitherto competitive service with very limited drivers for efficient and effective expenditure.

The diagram below summarises the questions that should be considered in determining the value of Chapter 6 of the National Electricity Rules (NER) as an appropriate means of regulating SMI cost recovery and potential alternatives.

Figure 1: Decision making approach to SMI cost recovery



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Discussion

Regulatory model

In Origin's view, wherever a monopoly over the provision of a service is granted (at the expense of competitive forces), then chapter 6 is the instrument to ensure appropriate cost recovery for the monopoly service unless there are clear and compelling reasons for not using chapter 6.

To date, the arguments for not applying chapter 6 of the NER in any instance rests largely on the claimed level of uncertainty about the implementation of the mandate, although the relevant level of uncertainty has not been clearly defined and quantified.

The first action therefore that must be enacted before a mandated monopoly is decreed must be on the jurisdictional Minister to ensure there is a minimum of uncertainty so that regulatory instruments for assessing efficient cost recovery under chapter 6 can be applied for the mandated period

Origin would contest that not applying chapter 6 (or using a hybrid that deviates significantly from it) is an indication that:

- Uncertainty and risk remains significant and the underlying cost-benefit analysis should be revisited;
- That the proposed SMI infrastructure is not of itself monopolistic in nature (in the same way the poles and wires infrastructure is) and therefore commercial (unregulated) provision should be seriously considered; and
- Technology solutions proposed are the source of the uncertainty and that alternative platforms should be contemplated.

A hybrid model that significantly departs from the framework set out in chapter 6 of the NER will not provide policy makers, industry participants or consumers with the comfort that either the disciplines of market forces or regulatory oversight are being applied to SMI cost recovery. In Origin's view, departing from the cost recovery approach contained in chapter 6 in a mandated environment will result in SMI deployment costs well in excess of any forecast promulgated in the cost-benefit study used to justify a roll out decision.

Technology risk

Pilots and trials (where specified in a Ministerial determination) should have a central objective of reducing risk associated with technology selection. In ours view, a key source of uncertainty has been the deployment of communication technologies that have not been applied in the Australian energy sector previously, in preference to using existing (public access) telecommunications networks where third parties bear the technology and operational risks (assuming adequate trials have been conducted), rather than the network.

The material increase in the cost of the Victorian SMI roll out is in many respects due to uncertainty generated by the uncertain performance of communication technologies (rather than meter assets themselves) and the inadequate testing of various options prior to commitment to them in the roll-out. To this end, we concur with the Commission's

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view that SMI pilots and trials will address the uncertainty associated with the technology selected.[1]

The deployment of proprietary communications networks may also reduce the viability of competitive SMI provision following a mandate. Where such decisions are made, in the knowledge that there will be future contestability, then the costs and risk of that decision needs to be borne by the party choosing the communications technology, rather than retailers and customers.

Non-regulated revenue streams

Origin supports the potential product innovations that SMI technology will enable. We understand that DNSPs are considering the development of supply capacity-based products (that may involve payments to a customer for allowing direct control of specific appliances and enabled by the SMI technology deployed). If such services are provided in the future by the DNSPs, the revenue such services generate is relevant to the approach adopted to determine the regulated cost recovery of SMI in an environment where SMI is delivered on a mandated basis by a monopoly provider.

To illustrate, if a particular DNSP is required to roll out SMI infrastructure and cost recovery is regulated under chapter 6 provisions or some other means and then markets an unregulated service (from a pricing perspective) using the same infrastructure, Origin would ask how the revenue stream generated from this service reconciles with the regulated cost recovery determined. By way of example, if a DNSP marketed supply capacity control services to 10 per cent of its customer base, how might the following issues be dealt with under a regulated cost recovery process?

1. The effective cross-subsidy paid by customers who are not marketed to, or who do not accept the supply capacity control service (enabled by spare bandwidth capacity in the SMI system).
2. The impact of the unregulated revenue stream upon the cost recovery required under the selected regulatory model.
3. The potential need to ring-fence the operations of the monopoly service provider and those of the DNSP marketing SMI-enabled services on a (cost) unregulated basis to end-use customers.
4. The allocation of any "benefits" (such as demand shift) under the cost-recovery mechanism.

These issues are made more pertinent if access is unavailable or limited to third parties and barriers to contestability exist following any mandate period.

Risks generated by post-mandate contestability of SMI

Following a mandate period for SMI deployment and operation, the regulatory model may need to account for the impact of asset stranding where third parties (including other DNSPs) are able to compete with existing monopoly provided SMI and services. In Victoria, Orders in Council require the AER to determine "exit" and "restoration" fees to be paid to a DNSP in the event that assets are stranded.

[1] AEMC (2009), Draft Statement of Approach, page 8.

This has two immediate implications for the degree to which the claimed "uncertainty" around the post mandate period should be considered in the cost recovery determination as a special factor:

1. The risk to the service provider that assets are economically stranded after the mandated period is minimised by the exit/restoration fee which is designed to recover the residual value of the assets affected by the decision;
2. The risk is minimised by taking into account the requirement to restore contestability post the special monopoly mandate period, at the commencement of the roll-out, and in the associated choice of technology.

As an example of the latter point, if a DNSP acknowledges the prospect of future competition then that might point towards a decision to use third party public access communication technologies (such as the proposed National Broadband Network) in preference to proprietary technology that is more likely to be stranded by competition. The cost recovery methodology should in turn acknowledge the overall costs and benefits of a DNSP proposing this type of solution when compared to alternative technology decisions. Origin does not believe that consumers and third party new entrants should bear the cost of technology choices made by DNSPs when the prospect of post-mandate contestability is known in advance.

Origin believes that exit and restoration fees may be amplified by the choice of technology selected when the original mandate determination was made. To a large extent, the risk of technology selection should be considered by the industry participant directed to roll out SMI and the cost recovery model should factor in the threat of competitive provision up front, rather than create a barrier to entry post mandate. Technology selection and the costs that may occur based on its relative vulnerability to contestable SMI provision is a risk that should be assessed during pilots and trials. Any new data generated from pilots and trials should then be included in a new cost benefit analysis if material.

Summary

Origin considers that the form of regulation of cost recovery under a mandated SMI roll out should follow chapter 6 requirements to the maximum possible extent as this will:

- Provide consumers, industry participants and policy makers with confidence that appropriate incentives are in place (absent competitive disciplines) to ensure that efficient cost recovery related to SMI take place;
- Incentivise DNSPs to forecast and budget SMI deployment costs under a known framework, taking advantage of reduced uncertainty provided by pilots and trials;
- Provide other jurisdictions and third parties with benchmark information on the costs of SMI that can assist future decision making.

We would further emphasise that well specified pilots and trials with clear objectives are an important mechanism in reducing uncertainty and thereby increasing the effectiveness of chapter 6 as a means of regulated the costs of an AMI roll out. It is critical that under an exclusive mandate of SMI provision that the regulatory model contain sufficient incentives to ensure efficiencies and to the maximum possible extent reflect outcomes that might be expected in a competitive market. Applying a cost recovery model that relies on efficiency of the tender process where the relevant regulator is then required to

disprove any of the costs that emerge from this process is unlikely to minimise the cost or maximise the benefits of an AMI roll out.

Origin would encourage further discussion of our response to the DSoA. Please contact me in the first instance.

Yours sincerely

Beverley Hughson
National Manager- Regulatory Relationships
Retail
(03) 9652 5702 – Bev.Hughson@Originenergy.com

Attachment 1: Response to specific questions raised in the DSoA

Proposed approach and decision making criteria

1. Are our proposed decision making criteria appropriate for the development of our advice? Are there any additional criteria that should be included?

Origin supports the criteria presented. In relation to criteria 1, we would add that as well as providing incentives to minimise cost in deciding upon the design, purchase and implementation of the SMI system, the decision making criteria should also provide the DNSP with incentives to consider future SMI contestability when deciding on (in particular) the design of the system and choice of communication technologies.

In terms of additional criteria, Origin would suggest that the regulatory framework not impede the development of contestable provision of SMI following an exclusive mandate period. The Commission states this in section 2.1.7 of the DSoA, however Origin believes it should be made explicit in the decision making criteria.

2. Do our proposed scenarios capture the relevant range of potential circumstances that should be considered in preparing this advice? Are there other scenarios or variables that should also be considered?

Origin does not propose additional scenarios or variables, however, costs and benefits need to focus on the mandated elements of a Ministerially determined roll out of SMI; the assessment of benefits (or costs) flowing from commercially provided services requires careful treatment and interpretation. This is particularly necessary if access to new services and products utilising the SMI rolled out is limited to certain parties and those services are incremental to the minimum functionality, performance and service levels determined. The recovery of AMI costs should not include costs that are associated with commercially provided services.

Issues for consideration

3. What issues may arise in regards to the recovery of the 'stranded costs' associated with DNSP's existing metering infrastructure, following a mandated smart meter roll-out?
4. Are there any other issues that we should consider when assessing the current cost pass through provisions in the Rules, particularly in regards to the materiality threshold and timeframes that apply?

Stranded assets

Stranded asset costs are an issue that needs to be considered in the cost-benefit analysis preceding a mandatory roll out of SMI. Origin understands that in Victoria, the cost of SMI will be rolled into the regulatory asset base of DNSPs for the 2016-20 price determination. The challenge for the regulator arises in assessing how stranded asset

costs should be recovered. In Origin's view, the cost of SMI needs to be separated from general use of system charges, but remain a prescribed charge. If a customer's smart meter installation was changed out to a third party, the customer would no longer pay the DNSPs "regulated" SMI charge.

It may not be the case that the DNSP needs to re-sell existing SMI assets, but it may be necessary to alter or upgrade the communications technology supporting meter assets, likely on a contestable basis. Such outcomes will lessen the 'stranding' of fixed meter assets, but to the extent that alternative communications networks are utilised (for example), an existing mesh radio communications system may suffer some asset stranding.

As previously noted however, in the context of future mandated roll-outs, DNSP's will have to make decisions about the use of closed or open communications technology. For instance, when faced with a choice of a private mesh radio system of a public third party technology provider such as a Telstra, one of the criteria for consideration is the degree to which risks and uncertainty can be usefully moved from the DNSP to the third party, and the degree to which the decision has an impact on future contestability in the provision of services.

Future provision of smart meters by third parties would, arguably, be less of a threat to a DNSP's infrastructure performance, if the DNSP had chosen in the first instance to use open access communications networks (such as public broadband). Pilots and trials should inform this decision.

Cost pass through

Origin believes that if a DNSP is directed to undertaking a pilot/trial or a mandated roll out, subject to the scope and objectives being defined in a way that supports the minimisation of costs and maximisation of benefits, a materiality threshold should not apply to the cost recovery process.

To the extent a pilot and trial or roll out determination are considered regulatory change events, the DNSP should expect full cost recovery and should not be expected to carry this cost in its normal revenue stream from the provision of distribution services.

The key principle, particularly in relation to pilots and trials, is that the scope and objectives of such activity is focused on addressing uncertainties, including the effectiveness of communications technologies, rather than testing commercial services that are incremental or superfluous to the central technology proposed to be rolled out.

5. With the exception of the current arrangements in the ACT, are there concerns with metering services becoming classified as alternative control services in other jurisdictions that we should consider in developing our advice?

Origin would seek consistency of regulation of metering services where provided by a single participant within a geographic region. To the extent that metering services are to be classified as alternative control services, Origin believes it is important for the regulator to apply a consistent approach in each jurisdiction and network area.

6. What issues may arise in regards to the recovery of retailer costs via distribution charges for mandated smart metering pilots/trials?

Origin believes that where a mandated SMI pilot/trial calls for the involvement of a retailer (it is our expectation that most trials and pilots will require retailer involvement), DNSPs will be granted the recovery of costs incurred by a retailer. The cost of any pilot/trial would then be distributed among all customers within the electricity distribution network where the pilot/trial was to take place. Origin would emphasise here that to date there has been no mechanism recognised by regulatory authorities to recover retail costs for pilots and trials or for the roll out of smart meters generally. Retailers cannot be expected to continue to support pilots and trials if there is no prospect of cost recovery either through the regulated tariff, or via the adjustment of the DNSP's charges.

Origin appreciates that the Commission intends to consider related party contracts where the DNSP and retailer taking part in a trial have the same owner. More generally however, while we recognise such parties may be related, we also consider that the principles of ring-fencing will apply (particularly in the retailer is a standard retailer subject to retail price regulation). The financial relationship between retailers and distributors under pilots and trials should be subject to the same separation and ring-fencing disciplines that would be expected under their normal functions.

Procurement of retail services for pilots and trials should be upon a commercial basis. Origin would be concerned if a retailer with a related distribution business agreed to undertake a pilot/trial process if the process of selection was not transparent.

7. How will the time delay between when smart metering costs are incurred and when benefits are realised, affect the distribution determination and cost pass through process?

Origin accepts that the benefits of SMI deployment will not be realised immediately and will take time to become evident to the regulator, consumers and other industry participants. In terms of the regulated recovery of SMI costs, whether via cost pass through or a more formal process prescribed under chapter 6 of the rules, we would expect the cost per customer to be higher at the beginning of the roll out and decline as offsetting benefits flow through. These benefits in the short to medium term clearly relate to operational expenditure. Over the long term, avoided capital costs may also arise in addition to operational benefits. Depending on the length of an exclusive mandate, a DNSP may have some incentives to ensure that the benefits factored into its cost recovery process if the threat of competition post-mandate is present.

Pilots and trials will go some way to addressing uncertainty in relation to the realisation of benefits. Some classes of operational benefits will be clearer than others, which would allow these to be assessed under the provisions of chapter 6 of the NER.

8. What are the implications of the expected uncertainty, in relation to the quantum of benefits that can be achieved through a mandated smart meter roll-out, for the effectiveness of the existing Rules?

The NER requires DNSPs to set out expenditure forecasts including operational expenditure under the building blocks approach. As we have previously indicated, pilots and trials will assist DNSPs understand where operational benefits lie and also assist the regulator to prioritise these. Similarly, it is possible that uncertainty can be reduced by transferring the risk to third parties such as telecommunication providers, and the DNSPs assisted by the pilots and trials process can make these choices based on the most efficient short and longer term outcomes (including the post mandated period of contestability).

The NER will remain effective if sufficient experience can be gained through pilots and trials. Alternative cost-recovery processes in Victoria have not proven effective nor have provided certainty around the pass through of operational benefits.

9. What type of information may be required by the AER to assess whether operational network benefits are being realised within a reasonable timeframe? Should the AER be required to adopt a monitoring role to assess whether the benefits anticipated at the time of a roll-out determination are being realised?

As automated services become widely available during the roll out of SMI, DNSPs should be able to provide information about the penetration and availability of these services (and the AER should request it).

The type of information that may be required could include:

- The number of customers within a particular area (by zone substation for example), fitted with SMI capable of automated meter reading, remote energisation and de-energisation and other services;
- The cost of delivering these services relative to other 'excluded' services;
- The DNSPs forecast of when other areas will be ready to receive services; and
- Whether a DNSP will reduce excluded service charges to all customers, whether or not SMI has been rolled out to their area, or if the charges are to be applied at the margin.

At present, the Order in Council in Victoria under its advanced meter roll out program does not require remote acquisition of data (where SMI is deployed) for some years. A consideration in future cost-benefit analysis (used to justify the roll out of SMI) should factor in the timing of benefit delivery and determine what is optimal (balancing DNSP deployment challenges against securing benefits at the earliest possible opportunity).

10. Is an EBSS appropriate for a mandated roll-out of smart meters, considering the MCE's requirement for the prompt pass through of benefits to consumers?

It may be inappropriate for an EBSS to apply to a mandated roll out due to the pattern of cost recovery for the DNSP (consumers will pay more for metering services in early years). Given the lack of discretion for consumers, delaying the pass through of benefits would not likely meet the policy objective of the Minister making the decision to roll out SMI.

11. To what extent are the current incentive mechanisms in the Rules likely to be effective in facilitating the revelation of recovery of efficient costs associated with a Ministerial determination?

The incentive mechanisms contained within chapter 6 of the NER may require some further work to accommodate the circumstances of a SMI roll out. Absent the application of chapter 6, it is not clear what form an alternative incentive mechanism might take.

12. What types of technology risks may DNSPs face in rolling out mandated smart metering infrastructure? What incentives do DNSPs have under the current regulatory regime to manage these risks?

A key technology risk associated with SMI is choice of communications technology. The degree to which its performance might be superseded and the ability for it to be bypassed are important considerations. The current approach in chapter 6 requires that the capital expenditure be efficient and reflect decisions that would be made by a prudent investor in network services. SMI is a special case (relative to other network investments) as it is not monopolistic in nature. As such, choice of technology should be informed by the potential for competition in the future. To ignore this possibility would indicate that:

- An investor in SMI believes exclusivity will be granted permanently and there is no need to factor competitive considerations when making technology choices; or
- The investment is not prudent as it has not considered these risks.

The AER may need to consider the technology chosen when assessing cost pass through applications put to them, including whether these risks and costs could be minimised by using alternative telecommunication service providers rather than developing proprietary solutions.

The incentive to manage such risks are not likely to be effective unless clear and unambiguous commitments are made to future competition in SMI services delivered to customers.

13. What alternative regulatory approaches should be considered in regards to the cost recovery of expenditure required to comply with a smart meter roll-out or pilot determination?

Origin notes the Commission's discussion of uncertainty on page 29 of the DoSA. Addressing this uncertainty outside of the current regulatory model may create further uncertainties. Alternative models of cost recovery imply that SMI could be rolled out by a number of stakeholders, including DNSPs and non-energy industry participants (particularly in relation to communications networks). Alternative approaches such as that applied in Victoria do not provide sufficient oversight powers to the regulator, in an environment where the investment itself is shielded from competitive pressures. Therefore, Origin would encourage a thorough assessment of the appropriateness of chapter 6 of the Rules before alternatives that suspend or significantly vary its application are considered.

14. Are there any particular mechanisms for smoothing tariff impacts over time that we should consider in developing our advice?
15. What potential issues may arise from unbundling metering charges from DUOS charges?
16. What incentives are there under the current regulatory regime for DNSPs to alter their tariff methodologies, to facilitate the realisation of the potential demand side benefits of mandated smart meters?

Origin addresses questions 15 and 16 in this section of our response.

Origin strongly supports unbundling of metering charges from DUOS as this provides clarity for consumers and a benchmark for third parties (and competitively sourced SMI provided by DNSPs outside or inside their own distribution network). The Commission identifies these benefits on page 30 of DoSA.

With regard to tariff methodologies, Origin notes that one Victorian distributor in particular has proposed new time of use tariffs that would appear to have as a primary aim sending demand side management signals to small use customers. As the Commission well understands, Victorian retail electricity prices are deregulated. Therefore, retailers may be able to pass through the network tariff structure as required. While it is the retailer who decides the extent to which the network tariff structure is preserved and passed through to end-use customers, Origin believes effectively competitive markets will determine the optimal outcome in this regard. Where retail energy prices are not deregulated, Origin is concerned that some constraints may be placed on retailers to pass through the full amount. Origin remains of the view that a universal deployment of interval meters is likely to be incompatible with any form of price regulation due to the inherent unwinding of cross-subsidies, many of which are to the benefit of vulnerable customers.

While Origin understands it may be desirable to preserve the network tariff structure to send demand management signals, we would also contend that demand side management signals for energy itself (the electricity, non-network component) needs to be given

significant (if not greater) weight in this debate, since it determines the need to construct new power generating assets and transmission links.