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Australian Energy Market Commission
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Distribution Network Pricing Arrangements Rule change

The Energy Supply Association of Australia (esaa) welcomes the opportunity to make a submission to the Australian Energy Market Commission (AEMC) Distribution Network Pricing Arrangements Rule change.

The esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of 34 electricity and downstream natural gas businesses. These businesses own and operate some \$120 billion in assets, employ more than 51,000 people and contribute \$16.5 billion directly to the nation's Gross Domestic Product.

Tariff reform is one of the most pressing issues facing the electricity supply sector. The way consumers currently pay for electricity was designed in the 1960s and 1970s. It was based on a relatively simple electricity system, with power being dispatched from centralised utility scale generators to homes and businesses via the network. Most of the cost of paying for this network was just added to the price of each kilowatt-hour of electricity used. It was a relatively simple system that served energy consumers adequately in a simpler time.

Recently we have seen the start of a transformation in the electricity system. The big changes have been the rapid uptake in energy-hungry domestic appliances . especially air conditioners . and the rapid uptake of distributed generation - rooftop solar PV panels. Together these technologies have done two things: drive new costs in upgrading the capacity of the electricity network and rendered the old flat rate network charging scheme redundant and inequitable.

Most participants recognise the importance of moving towards more cost reflective tariffs to deal with these new challenges. As part of this process the Standing Council on Energy and Resources (SCER) has submitted a rule change request on Distribution Network Pricing Arrangements.

The esaa believes it is important to have rules that support the development of cost reflective tariffs. But it is not clear that the current rules have been the most significant barrier to tariff reform. The necessary metering infrastructure is not present in most distribution network areas and even in the areas where more cost reflective tariffs can be delivered, they have often been limited by government decree.

Further it is not clear that the proposed rule change is the best approach for driving more cost-reflective pricing, as it focuses on a very narrow definition of economic efficiency: long-run marginal cost (LRMC). Determining the LRMC for different customer types who use a shared network is complex and involves many decisions that entail trade-offs, including: demand versus energy pricing; level of geographical granularity; consistency of price signal (having a spike in charges in an area that is getting close to capacity may not be the most efficient way to elicit customer responses); determining what period peak charges apply, given that some networks have significant spikes for only a few hours during a year; the emergence of two-way flows on the network; and shifting patterns of demand. It is not clear that the proposed rule change creates a framework for evaluating these trade-offs. As such, it would be useful to spend time at the start of this process to model/examine the implications of these questions so that market participants can identify what the rule change would actually mean in practice.

There are two key goals from network pricing: sending price signals about future incremental costs to encourage efficient customer responses and recovering efficiently incurred sunk costs. There may be difficulties in reconciling these two objectives. While the rule change requests acknowledges this tension, the proposed solution to have a residual amount of revenue that is to be allocated to tariffs in a non-distortionary way doesn't resolve the tension.

The rule change request is predicated on the principle of customer choice. It is unclear how this menu approach to tariffs can be reconciled with a rigid requirement to price according to LRMC. How can a range of different tariffs all be consistent with long-run marginal pricing? And if they are each consistent with a different definition of LRMC, noting the issues listed above, then how does the injunction to use LRMC provide any real guidance to DNSPs as to how to set tariffs?

While we think it is important to work constructively with the AEMC to improve the rules, unless SCER works to resolve metering issues and builds necessary community support for new tariff structures, any improvement in the rules may be for naught. Worse still, a lengthy rule change process may inhibit progress being made independently by DNSPs who will not want to go to the trouble of developing a more cost-reflective pricing approach if there is a risk that it may not be consistent with the eventual pricing rules.

Given the request is an outworking of a recommendation from the Power of Choice review, we do not expect the Commission to reject the rule change outright. But in developing a more preferable rule change the practical ability of DNSPs to improve cost-reflectivity must be given greater consideration, along with the abilities of retailers and consumers to respond to tariff changes. Any such rule change should also be designed so as not to penalise early movers if they have developed a workable, cost-reflective tariff structure that may not exactly align with the new rules.

Please see Additional Information for our views on the elements of the rule change.

Any questions about our submission should be addressed to Shaun Cole, by email to shaun.cole@esaa.com.au or by telephone on (03) 9205 3106.

Yours sincerely

A handwritten signature in blue ink that reads "Kieran Donoghue". The signature is written in a cursive style with a long, sweeping tail on the letter 'e'.

Kieran Donoghue
General Manager Policy

Additional Information

The rule change request has two elements:

- the basis on which network prices are set; and
- the process for changing prices.

Distribution Pricing Principles

It is suggested one of the key reasons why small customers are not facing cost reflective prices is a lack of prescription in the rules for distribution network service providers (DNSPs) to set prices using long run marginal cost (LRMC). While this may have played a role, we argue that suitable metering and a lack of social licence have been much more decisive.

Without advanced metering options it is not possible to deliver cost reflective tariffs. As such, it is not surprising DNSPs have not developed the tariffs. Recent history in Victoria shows necessary technology and willing DNSPs are not sufficient if there is not customer acceptance. More cost reflective tariffs¹ were discussed in the media without much information, customers responded negatively and the government reacted, placing a moratorium on time of use pricing that lasted for three and a half years.

The greater customer focus and consultation will in part address this issue. But it is unlikely consumer advocates will have sufficient reach to gain broad acceptance across the community. To deal with this, state governments will need to help in building the case for change, noting governments still own networks in most states.

LRMC

Network tariffs serve two purposes: recovery of sunk cost and signalling the cost of future augmentations. Basing prices on LRMC would signal to customers the cost of further expansions. But setting tariffs just based on LRMC will typically not by itself allow a distribution network to recover all of its historical capital costs. The balance of the costs will need to be recovered through a residual charge.

If LRMC is to be determined at specific locations on the network, then on the face of it, it is only relevant on parts of the network approaching a constraint. In areas that are not constrained LRMC could be approaching zero. This would mean tariffs would be nearly completely made up of the residual. It is quite likely that this would be the case for significant portions of the network at any given point in time. The rule change offers little guidance as to how the residual should be allocated to customers. This is one of the practical issues that should be explored before any rule change is made.

Requiring prices to be set based on LRMC also raises the question of how cost elements not related to peak demand should be dealt with, such as replacement of aging assets, metering costs and most operating expenditure.

¹ Time of Use tariffs are a slight improvement on two part tariffs, but still fall a long way short of being cost reflective.

If the rule change is adopted, DNSPs should have as much flexibility as possible in determining how to apply LRMC, due to the range of ways to calculate LRMC and to give effect to it through tariff structures. If DNSPs are supposed to own their tariffs, they will need flexibility to choose the method and approach to develop LRMC tariffs that are appropriate for the given circumstances of the network. To ensure this flexibility, any Australian Energy Regulator (AER) guidance needs to avoid prescription.

Locational pricing

LRMC pricing implies the use of locational pricing, as the available capacity varies throughout the network. Locational pricing is theoretically more efficient than network wide pricing. But when designing pricing principles, practicalities need to be taken into account, for example jurisdictional willingness to have widespread variation in pricing². There is limited value having pricing principles in the rules if every jurisdiction prevents their application.

Another issue to consider is the level of granularity for locational pricing. Depending on what basis LRMC is set, for example if the locational component is at the granularity of individual zone sub-stations, it could impose material costs on retailer offerings and may reach a point where it makes more sense just to split out the network component.

Further, while theoretically efficient, it is debatable to what extent customers have an ability to respond to the signals sent by locational pricing. Existing customers in particular are hardly likely to move because they are in a more expensive location to service.

Locational pricing is a significant step from current pricing arrangements and may prove challenging to gain community acceptance at the same time as tariff structures are changing.

Additional issues

There is likely to be conflict between the requirement for networks to design tariffs based on LRMC and many customers not having meters that can implement this tariff. How is this to be resolved? Would a network design the tariff and simply require the retailer to ensure it can be delivered?

It is not possible to design new cost reflective tariffs that leave everyone better off. It is not clear what would happen if a network designs a more efficient tariff and governments effectively ban them because some groups will be worse off. Would the network be required to continue offering a non-cost reflective tariff and allow the customer to choose? If this was to eventuate, customers benefiting from a cost reflective arrangement would switch to new tariffs, the non-cost reflective tariffs would progressively become more expensive.

² For example Queensland has a policy of uniform tariffs across the entire jurisdiction, which is currently funded by a Community Service Obligation.

Conclusion

Using LRMC as effectively the sole pricing principle is likely to produce undesirable outcomes. As such, we support the AEMC exploring if there is a more preferable rule that achieves SCER's objectives. The first step would be having network prices better reflect the underlying costs of delivering network services, large sunk costs and augmentation costs. Pricing principles should facilitate a shift away from energy based charges towards demand based charges³. In the absence of advanced metering there may be a need to rely on a higher fixed element of tariffs in the short term, as a proxy for demand charges. The current weighting of tariffs towards energy volume charges does not reflect the underlying cost of supply electricity.

Process

The rule change proposes mandating a consultation process and the development of a document that sets out information on tariff design and direction (Pricing Structure Statement). esaa supports minimum standards for consultation and information to be provided in the PSS. That said, just because there is not currently any such requirement does not mean DNSPs do not engage. A number of DNSPs undertake a range of stakeholder engagement activities, with the current Ergon tariff design process being a good demonstration of what already happens.

Developing the PSS in the lead up/as part of the revenue re-set process has merit, as it would afford time for informed consultation and meaningful stakeholders input. The level of detail in the PSS must reflect the progression of the revenue re-set process. The PSS could include information on tariff classes, charging elements, how network costs are allocated to the charging elements and price level. It should set out the direction and end point the DNSP is aiming to achieve over the five year period.

While higher level elements of tariffs could be made binding it is not clear it is realistic to have binding prices for the duration of the five year determination. Networks do not have information on where large load devices like air-conditioners are being installed, or where PV is likely to be installed. This will affect the price path. Both air-conditioners in the 1990s and PV in late 2000s increased their penetration very rapidly over a few years. In the future we could see the rise of other technologies that impact the grid significantly⁴ or continue to see existing technologies affect price paths. Further the AER approval process for the PSS should be limited to the distribution tariff component only, as DNSPs do not have sufficient control or oversight to add on components such as transmission costs and jurisdictional costs.

Timing

esaa agrees there is an inherent tension in trying to balance the timing aspect of annual pricing approval process, as the process involves a chain of interdependent pricing steps. That said there does appear to be scope to ensure retailers receive network prices earlier than they currently do.

³ Given the underlying cost structure of supplying electricity demand based charges are better suited to delivering cost reflective prices.

⁴ Such as electric vehicles and induction cooktops.

The ultimate aim of the tariff setting process is to have well designed, cost reflective tariffs. To achieve this each party needs sufficient time to develop their tariffs. As the last step in the process, under current arrangements retailers can have insufficient time to fully develop their tariffs. If retailers are not afforded sufficient time it will limit their ability to design the best tariffs, set tariffs at an efficient level and to engage in the necessary communication with customers about any changes.

The current timeframes can add to a retailer's cost, as they have to set prices without full knowledge of network costs, or delay setting prices. This can have a material impact as network tariffs make up 35 to 50 per cent of the overall retail price. Costs are also added in reorganising system, process and collateral updates at short notice. Greater advance notice of final changes to both structure and level of prices is important in this regard.

But it is not costless to bring forward the notification of network prices. The further the network price notification is brought forward, the greater the risk of inaccuracies by both DNSPs and transmission network service providers (TNSPs) relying on estimates of parameters.

The impact on the DNSPs will vary depending on the control mechanism adopted. DNSPs with a revenue cap and TNSPs face limited risks from using estimates to design their network tariffs, as the unders/overs mechanism will balance out the revenue over the regulatory period. However, if errors get too large this may blunt the price signal for customers. Bringing forward the notification process will be more challenging for DNSPs with a weighted average price cap, as they bear more risk in the price setting process.

If the timing requirements are brought forward for DNSPs and TNSPs, arrangements will need to be put in place to ensure retailers benefit from the extra notice. This entails an obligation on the Australian Energy Regulator to approve network tariffs promptly.