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Submission to the Australian Energy Regulator Issues Paper on the NSW Electricity Distribution Businesses' Regulatory Proposals

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Total Environment Centre's National Electricity Market advocacy

Established in 1972 by pioneers of the Australian environmental movement, Total Environment Centre (TEC) is a veteran of more than 100 successful campaigns. For nearly 40 years, we have been working to protect this country's natural and urban environment, flagging the issues, driving debate, supporting community activism and pushing for better environmental policy and practice.

TEC has been involved in National Electricity Market (NEM) advocacy for ten years, arguing above all for greater utilisation of demand side participation — energy conservation and efficiency, demand management and decentralised generation — to meet Australia's electricity needs. By reforming the NEM we are working to contribute to climate change mitigation and improve other environmental outcomes of Australia's energy sector, while also constraining retail prices and improving the economic efficiency of the NEM — all in the long term interest of consumers, pursuant to the National Electricity Objective (NEO).

Summary

The demand management (DM) plans contained in the NSW networks' regulatory proposals for 2015-19 are poorly presented and woefully inadequate. TEC recommends that the AER either requires these plans to be substantially expanded, or substantially reduce network capex and opex revenues. However, in order to justify this change of focus the AER must itself display a much greater interest in the benefits to consumers of network DM than it has done to date in this regulatory reset process, as well as in previous ones.

Introduction

TEC welcomes the opportunity to comment on the AER's Issues Paper on the NSW Electricity Distribution Businesses' (DBs) Regulatory Proposals. These proposals, and the AER's response to them, are of great significance to NSW consumers. In spite of declining volumes, over the 2009-14 regulatory period the total revenue earned by NSW DBs approximately doubled, and was the main driver of retail bills increasing by around 70 per cent on average during this period. This represents a gross failure of the regulatory regime that must not be repeated for the 2015-19 determination period.

The DBs' periodic revenue proposals are much more than forecasts of demand and expenditure. They set out and effectively lock in the strategic approach to network growth (or decline) and management that will be taken by the business, including any investments in innovations and alternatives to network augmentation over the longer term. This is especially important in the context of the radical shift that is now occuring from a centralised and fossil-fuelled electricity system to a decentralised one based around renewable energy and storage, complemented by a greater emphasis on energy efficiency and demand management.

For this reason consumers require and have a right to expect a high level of consultation, transparency, and accountability in the development of these proposals, as well as robust examination and scrutiny of these proposals guided by principles that support the National Electricity Objective (NEO), before they are accepted and implemented. In the past TEC has criticised the current propose-respond model of network revenue determinations, as well as the considerable risks to consumers in guaranteeing network revenues for 5 years, but we recognise that these are matters that are largely outside the AER's control.

We note that DM is an appropriate consideration by the AER in respect of both the current DM Incentive Scheme (Clause 6.6.3 of the NER) and in both the capex and opex part of the building block approach to revenue determinations, with Clause 6.5.7(e)(10) (and the equivalent clause in relation to opex) requiring the AER to consider as an expenditure factor 'the extent the Distribution Network Service Provider has considered, and made provision for, efficient and prudent non-network alternatives…'[1] We note that the section on the DMEGCIS in the AER's 2012 Framework and Approach paper gives relatively little direction to the NSW DBs in designing effective DM strategies, especially in relation to targets or project details.

Demand management

Due to limited resources and our interest in environmental outcomes, TEC has chosen to focus largely on the extent to which the DBs' regulatory proposals utilise DM to meet the long term interests of consumers.[2] DM utilisation in Australia has been historically limited when compared to international best practice. The current value of network and non-network DM in Australia currently equates to less than 2% of total peak demand.[3] In the US DM meets 4.3% of total peak, with many states currently setting targets for peak demand reduction between 5 and 15%.[4] In California the equivalent peak load reduction is 6 percent.[5]

As noted by the AEMC and the Productivity Commission in the context of recent reviews, there is significantly more opportunity for DM in the Australian system than is currently being pursued.[6] It is estimated that $2.2 billion per year of avoidable network costs are being passed on to consumers Australia wide[7]. While it is generally agreed that the current allocation of funds under the DM Incentive Allowance (DMIA) is too low, utilisation of the scheme has been even lower, with just 13% of the scheme expended in 2012.[8]

There is a strong imperative to utilise DM in order to reduce costs and therefore increase the affordability of energy for consumers, but also to improve the environmental performance of the electricity system. A substaintal body of evidence supports the position that a change in approach to network growth is needed:

[1] Productivity Comission, 2013, *Electricit y Network Regulatory Frameworks, Report No.62*, Canberra.
[2] For the purposes of this submission we note that there are two distinct ways of defining DM: broadly, as the variety of ways that overall electricity consumption may be reduced – ie, by increasing energy conservation, peak load management, energy efficiency and distributed generation; or more narrowly, as the variety of ways that network peak daily or annual demand may be reduced. This may also be achieved by increasing energy conservation, peak load management, energy efficiency and distributed generation, but in this case these projects or activities are undertaken specifically in order to reduce the need for network augmentation, where DM is the most economically efficient option. In this submission the term DM will be used in the broad sense, while 'network DM' will be used when we intend to refer to the second, narrower meaning. We note that the DBs' regulatory proposals use somewhat different terminology and while their 'targeted' programs focus specifically on areas of network constraint and are therefore network DM projects, implementation of some of their broad based initiatives may also be intended for implementation in specific locations in order to assist with peak demand reductions.
[3] Dunstan C, Downes, J & Sharpe, S. (2013).
Restoring Power: Cutting bills & carbon esmissions with Demand Management. Institute for Sustainable Futures, University of Technology Sydney. Prepared for the Total Environment Centre, p 57.
[4] Productivity Commission, 2013, op cit. ci ting Faruquiand Fox-Penner (2011), p 46.
[5] Productivity Comission, 2013, op cit., an d Australian Energy Market Commision, 2012, *Power of Choice Review – Giving Consumers options in the way they use electricity (Final Report).*
[6] Futura Consulting, 2011, *Power of Choice – Giving consumers options in the way they use electricity* . Cited in Dunstan c, et.al, 2013, op cit.
[7] Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power, p 27*. TEC notes that Ausgrid increased it's rate of expenditure in the 13/14 financial year, and is projecting a total spend of 4.1 m of the 5 m allocation.
[8] Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power.*

- Electricity prices more than doubled between 2007 and 2013.[9]
- Network charges make up half the average NSW residential consumer's bill.
- Networks are investing more than $43 billion in the current 5 year regulatory period.[10]
- The Grattan Institute estimates that $7.8 billion of network investment could have been avoided from 2009 to 2013 if prices had been used to encourage consumers to use less power in periods of peak demand.[11]
- An estimated one third of the current investment in the networks is to cater for growth, and in particular, growth in peak demand.
- The Productivity Commission estimates that peak demand events occur for less than forty hours per year (or less than 1% of the time) yet account for approximately 25% of the average residential bill.[12]
- The AEMC estimates that 'the economic cost saving of peak demand reduction in the NEM is likely to be between $4.3 billion to $11.8 billion over the next ten years'[13]. These savings include cost reductions associated with avoided network capital expenditure.

DM is critical to halting the unprecedented growth of network infrastructure that occurred in the previous regulatory period. Beyond this, there are technological and environmental imperatives to invest in DM. Australia has one of the most carbon intensive economies in the world and the electricity sector currently accounts for 35% of Australia's greenhouse gas emissions.[14] The continued supply side focus in this sector has exacerbated this. Peak demand is mostly met by fossil fuelled generation. Improving energy efficiency and reducing energy consumption, particularly at peak times, is one of the most cost effective ways of achieving carbon abatement. Technological change is also presenting challenges for electricity networks and their continued supply side focus. The widespread adoption of solar PV, improved energy efficiency of appliances and buildings, and the future possibilities of energy storage and electric vehicles is generating rapid changes that have led to a decline in average demand while widening the gap between average and peak demand.

If more DM had been supported during this period, consumers, the Australian economy and the environment could all have benefited. Despite the numerous reports (by the AEMC, Senate, Productivity Commission, etc) that have highlighted the gross errors in the AER's current determinations, the AER now seems set to make equally massive blunders. At the heart of this failure is the AER's refusal to take DM, energy efficiency and distributed renewable seriously as alternatives to network investment. There are increasingly loud warnings that the future will involve rapidly changing market conditions and technology including low cost solar and potentially afforable battery storage, carbon constraints, energy efficncy and more flexible energy management. DM is critical to this transformation. DB need to be incentivised to embrace and facilitate not resist and obstruct this future. However, after more than six years of responsibility for DB regulation, the AER still does not have an effective DM incentive scheme in place. The paltry DMIAs in the current regulatory period send a strong signal to the DNSPs that the AER does not take DM seriously. TEC has consistently regulators about these concerns in its reports over the past decade; in

[9] Speech by Andrew Reeves, Acting Chairman, Australian Energy Regulator, August 2014.
[10] Grattan Institute, 2014, *Fair pricing for power.*
[11] Productivity Comission, 2013, *Electricity Network Regulatory Frameworks, Report No.62*, Canberra.
[12] Australian Energy Market Commision, 2012, *Power of Choice Review – Giving Consumers options in the way they use electricity (Final Report).*
[13] Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, 2013. *Quarterly Update of Australia's National Greenhouse Gas Inventory, December Quarter 2012.*
[14] National Electricity Rules, Version 64, p 20.

particular, the risk of overinvestment arising from the failure of the AER and the DBs to take DM seriously. The AER did not take head of the warnings then and seems just as deaf to similar warnings now.

DM regulatory reform

The current barriers and disincentives to investment in DM are well understood. A reform program has been mapped out, and TEC acknowledge that there haVE been improvements, including changes to the Regulatory Investment Test for Distribution (RIT-D) and the requirement for businesses to implement a Demand Side Engagement Strategy. Reform of the DMEGCIS has been slow, however, despite it being identified by the AER as a high priority area under the Better Regulation program. The AER has indicated a rule change in relation to Clause 6.6.3 is necessary to progress this reform.

In view of the slow progress on reform, in 2013 TEC commissioned a report from the Institute of Sustainable Futures at UTS to examine the barriers and opportunities to drive large increases in cost effective network DM in the Australian electricity industry. The report, *Restoring Power: Cutting bills & carbon emissions with Demand Management*, proposes five key measures:

1. AEMC to amend the NER to make it clear that providing incentives to network businesses is desirable to overcome barriers to effeicient network DM.
2. AER to establish an effective DMEGCIS that drives network DM wherever it will reduce costs to consumers.
3. DBs to set DM targets, in collaboration with regulators.
4. DBs to report clearly and consistently on their DM activities and outcomes.
5. AER to provide effective and efficient DM performance incentives to network businesses.[15]

TEC subsequently submitted a rule change request to the AEMC in November 2013. The key features of TEC's rule change proposal, which largely aligns with the proposal by SCER, involve providing more principles, criteria and an objective in to the rules on how the incentive scheme can be applied. Importantly ,it also includes a requirement for networks to monitor and publish the results of DM projects undertaken pursuant to the DMEGCIS, expanded criteria for applying the DMEGCIS, and recognition of the need for the DMEGCIS to include a calculation of the share of non-network market benefits to be retained by networks. The objective of the rule chage is to reform the current DM incentive scheme to support appropriate incentives for DBs to pursue efficient DM, and to give the AER more scope to provide greater incentives for networks to undertake more DM activities instead of building new infrastructure.

TEC considers that if such measures were in place the DM plans contained in the current regulatory proposals may have been stronger. TEC also believes the AER could still revise the DMEGCIS scheme operation/guidelines without a rule change. Both the AEMC and the Productivity Commission have implied that the AER has not used its full discretion in applying the current Clause 6.6.3 to the design of the DMEGCIS, noting that the AER has 'broad discretion with respect to the design and application of the DM incentive scheme." While TEC acknowledge that it was reasonable to refrain from amendments during the course of the various DSP reviews, the TEC urge the AER to use this scope and take the opportunity now to devise and apply sufficient financial incentive for networks to undertake DM as an alternative to investing in capex. We recommend that the AER follows the recommendation contained in *Restoring Power*, that networks be able to keep, for five years, up to half of the non-network benefits of network DM achieved

[15] AEMC, 2012, op cit. p 206
[15] Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power.*

above the targets set by the network itself.[16] In the absence of a reformed DMEGCIS we note that Ausgrid has also outlined a Demand Management Benefit Sharing Scheme (attachment 3.03), as an incentive for DM once the D-factor is removed and for implementation in this regulatory determination. Ausgrid proposes a $100 per kVA incentive with a 50% share of upstream benefits to the network. TEC find that this percentage should be an upper limit and only reached where the AER determines that the cost-benefit analysis of the proposed non-network solution is extremely favorable. We are unable to consider Ausgrid's proposal in more detail at this time but would appreciate the opportunity to consult with the AER in regard to it in more detail as soon as possible.

The AEMC will only this month, August 2014, begin work on the TEC and SCER DMEGCIS rule change requests. Meanwhile, the AER has indicated informally that it is unwilling to consider expanding the very limited DMEGCIS the AER implemented in the 2009-14 NSW DBs' regulatory determinations in light of likely impending reforms. In TEC's view it would be extremely disappointing if the development of new incentives were to be deferred until the next regulatory period, and TEC therefore urges the AER to revise and apply new guidelines and incentives within the course of the current determination.

We are particularly disappointed that in its 2014 Stage 2 Framework and Approach paper for this regulatory reset, the AER proposed a DMEGCIS for the next regulatory period that would actually be even less effective than that for the previous perdiod, since it eliminates the D-factor while not preplacing it with any additional incentive for networks to undertake DM.[17] The AER thus sent a clear message to the DBs that DM is not important to it: and the networks have responded with underwhelming DM plans.

TEC also believes that regardless of current regulatory disincentives, there is nothing to actively prevent NSW DBs from setting more ambitious targets for peak demand reduction and developing and implementing appropriate and innovative DM solutions where it is in the long term interests of consumers to do so. Indeed, it would be in line with the objectives of NEM reform which has been fully outlined in various reviews, if not fully implemented. To do so would also be consistent with the outcomes of network engagement with consumers for the networks to make all efforts possible to reduce costs that consumers will ultimately bear.

DM plans in the current Regulatory Proposals

TEC is greatly concerned by the limited focus on DM, and particularly network DM, in the networks' current regulatory proposals. Both the level of expenditure allocated to DM in each of the proposals and the level of capital deferral as a result of DM projects is extremely low, particularly when considered in relation to the overall forecast expenditure. For example, Ausgrid proposes to spend a mere $37.3 million on DM over the 5 year period, representing only 0.3% of total forecast expenditure of $12.2 billion. Ausgrid forecasts a total deferral of capital costs as a result of DM valued at $16 million over the period, a paltry sum in contrast with the total forecast capital spend of $4.4 billion. Even worse, Ausgrid has proposed the highest level of expenditure and outcomes of the three DBs, and its DM expenditure is the the highest proportionate to total forecast revenue requirements.

Despite all DBs acknowledging that a less than economically efficient level of DM has been conducted to date[18] and that performance in relation to DM has been under par in the previous period,[19] their proposals

[16] Ausgrid, 2014, Attachment 6.12, *Demand Management Operating Expenditure Plan*, p 5.
[17] AER, Stage 2 Framework and approach: Ausgrid, Endeavour Energy and Essential Energy, January 2014.
[18] Essential Energy, 2014, Demand Management Strategy, p 18.

lack ambition and only focus on extremely low risk, high cost benefit opportunities. There is a paucity of information about the detail of DBs' future plans for DM, and it is therefore difficult to see the extent to which, if at all, DM and particularly non-network alternatives feature as part of their broader network strategy. This is despite common statements in all three proposals that prudent non-network alternatives had been considered in developing capex and opex forecasts. While it is noted that Essential Energy's strategy contains comparatively better detail than the other two, the overall limited emphasis and spending on DM is completely unacceptable particularly while forecasting capital expenditure requirements linked to areas of network constraint, and overall continued growth in peak demand in the 2015-19 period.

There is also a lack of detailed and consistent information or reporting on DM outcomes over the previous regulatory period, although it is noted there is a better level of performance reporting in the Ausgrid expenditure plan. This makes it extremely difficult to quantify performance outcomes clearly or compare the performance of the NSW DBs against networks in other jurisdictions. For example, it is not possible to easily identify the total spend on DM by NSW distribution businesses over this period, the value of this activity in terms of capex deferral, and the reduction in demand achieved. Nonetheless, the available information suggests that the networks' performance on DM falls well short of best practice. A survey of Electricity Network DM in Australia showed consistently higher reductions in demand was being achieved by Queensland DBs compared to those in NSW in all three years examined – ie, 2008-09 to 2010-11.[20] While Queensland DBs increased their level of effort each year, NSW efforts remained the same or even declined. In 2010-11 Queensland DBs achieved a reduction of 328 MW of peak demand compared to a mere 32 MW in NSW. In this context, the targets set by the NSW DBs for the current regulatory period (where they exist) are very low. For example, Ausgrid believes it will deliver 84 MVA in peak summer demand reductions through their broad based DM strategies over the next 5 years. Energex in Queensland achieved more than half of this 5 year target in 2011 alone with a 42.6 MVA reduction in peak demand.[21]

Ausgrid

Ausgrid's Demand Management Operating Expenditure Plan details a DM spend of $37.3 million over the five year regulatory period with the majority of this (approximately $22 million) focused on 'broad based' strategies, mostly involving load control and power factor correction. They state this strategy will deliver 84 MVA in peak summer demand reductions and $38 million in market benefits over 5 years. The remaining expenditure includes $2 million on targeted or area specific DM, $8.7 million on technical support and reporting and an inclusion of $5 million for projects under the DMIA. The overall DM effort equates to 0.3% of the total proposed revenue over the five year period.

TEC acknowledges that the broad based program of activities did not exist in the previous previous regulatory period and in this regard is a clear improvement and step up of investment in this area. However, as Ausgrid itself has recognised, the investment in the previous period was well below optimal, and for this reason it would be disappointing if the previous period was used as a benchmark. It is our view that the investment in broad based programs could be significantly higher, with a greater range of activities being pursued. While there is no question that the DM activities outlined in the broad based strategy are of high value – the experience and evidence of such strategies in NSW and elsewhere supports this – the

[19] Dunstan, C., Ghiotto, N., Ross, K., 2011, Report of the 2010 survey of Electricity Network Demand Management in Australia. Prepared for the Australian Alliance to Save Energy by the Institute for Sustainable Futures, UTS.
[20] ibid.
[20] ibid.
[20] Dunstan, C., Downes, J. & Sharpe, S, 2013, p 55.
[21] Productivity Commission, 2013, op cit.

program is limited in its scope, with Ausgrid admiting it is 'modest' and that they have only selected low risk, high cost benefit actions. Ausgrid justify this based on the volatility of demand in the upcoming period, and the possibility that lower growth in demand than forecast will occur. While acknowledging a low growth scenario does not prohibit DM, indeed the demand reduction requirements to achieve capital deferrals are lower (making them easier to achieve and more cost effective), they argue the opportunities for DM would not be as frequent. TEC finds it curious that in this context Ausgrid is cautious about the demand forecasts they have provided, while the same doubt is not evident when forecasting the capital and operational revenue requirements over the next five years.

TEC is also concerned by the low level of investment in targeted DM in this proposal: $2 million compared to $8 million in the previous period. If their forecasts for demand growth are correct, lower overall demand combined with an increase in peak demand will see the load factor for Ausgrid's network continue to decline. It is well understood that DM targeted to specific areas of network constraint is the most effective way to shave peak demand and respond to a declining load factor. [22]

TEC is also disappointed with the limited planning and detail that have been provided on how the revenue allocated for targeted DM will be spent. Ausgrid states that these targeted DM projects have been included in their preferred Area Plan strategies and that related capex project deferrals of approximately $16 million have been built into capital plans. It is hard to see how this is possible given the limited planning for spending this money that it admits to. Only $500,000 has been allocated to specific projects. The remainding $1.5 million is allocated to 'Distribution (11KV) of its $2 million budget for targetted programs projects.' However, Ausgrid does not know the specific demand driven capital investments they will make in the 11KV distribution system and has estimated expenditure based on similar expenditure in the previous period scaled back to the relative level of growth. Its expenditure plan states that 'at this point in time we do not know the exact location and type of DM options that will be implemented to defer 11kV capital investments in 2014-19.'[23]

Given the lack of planning at this point, TEC is concerned that the DM options adopted under this program will be less than optimal. In the 2009-14 period the majority of the targeted DM (D-Factor) projects consisted of temporary diesel generator installations. [24] TEC would hope to see some higher level of innovation and cleaner, less emissions intensive solutions being deployed.

Two other aspects of Ausgrid's DM operating expenditure plan are concerning. Ausgrid has allocated $8.2 million to 'technical support and reporting,' which, it points out, include the operating costs of meeting its obligations to consult as part of the RIT-D and implementation of the DM stakeholder engagement strategy. TEC questions whether such costs are not already covered by the $1.58 billion requested for operations and support in their revenue proposal, particularly given the significant increase in opex from the previous period. TEC notes that the other DBs have not made similar claims, at least in the context of their DM plans, and we would ask the AER to scrutinise these cost claims carefully.

Another area of concern is the limited detail provided on DMIA expenditure in the new regulatory period. Ausgrid explains that the under-expenditure of DMIA in the previous period occurred because it was a new allowance that was not planned for and there was a time lag in implementation, and because many of the possible initiatives were being pursued through the *Smart Grid Smart City* program trials. This is

Ausgrid, 2014, Attachment 6.12, *Demand Management Operating Expenditure Plan*.
[23] ibid.
[23] Endeavour Energy, April 2014, *Dem and Management Strategy 2014-2019.*

understandable, but surely there is no excuse for not having detailed proposals for expenditure under the DMIA in the current period, given the amount of attention that has been paid to the allowance and the need for greater DM in the later part of the previous regulatory period. Like the other NSW distributors, Ausgrid has not sought to bid for any more than their basic $1 million per annum allowance under the DMIA, and it appears almost casual about whether or not it will actually be expended, noting several times that it is on a 'use it or lose it' basis. It does not outline any specific projects under this scheme, nor does it provide any indication that it is concerned to ensure better utilisation of this scheme in the current period compared to the previous. We also note that it has added further criteria in addition to that required by the AER for their own internal approval processes for DMIA projects. These criteria include that projects are repeatable, able to be geographically focused at the level of a zone or substation footprint, and that they are potentially cost effective compared with probable network alternatives. The later criterion in particular seems at odds with the purpose of the allowance, which is to trial and test the efficacy of approaches which would otherwise be unknown, and TEC is concerned this will unnecessarily restrict potential projects to move forward.

Endeavour Energy[25]

Endeavour Energy outlines a total DM spend of $13m in their Demand Management Strategy 2014-19. This is even lower than Ausgrid at 0.25% of its total revenue proposal, but otherwise there are many broad similarities to the Ausgrid proposal. Endeavour outline a broad based DM program of $6.2 million with 29 MVA in demand reduction for two activites which include converting pools to off peak and power factor correction. Like Ausgrid it has targeted low risk projects with 'material demand reduction' for this program while allocating higher risk projects for further pilots and trials.

Endeavour has allocated a greater amount than Ausgrid to targeted DM strategies with $3.8 million for 4 individual projects identified. Unfortunately, while capital deferrals for each project are noted, there is no detail available about the length of the deferrals and the type of DM treatment being proposed. The Endeavour Strategy is effectively a Powerpoint presentation with only high level information available. This makes it difficult to provide comment on the strategy other than at a similarly high level, and it should surely raise questions about whether AER can be satisfied that the business has considered prudent non-network alternatives in putting forward their capex and opex plans for the period.

Like Ausgrid, Endeavour is content with its annual DMIA allocation and has not sought additional funds over the period. Endeavour has allocated the $3 million over the 5 years to a range of pilots and trials including a third of it to residential energy storage. TEC is pleased that there is a plan for these funds and that residential storage is one of the areas being investigated; however, we are disapointed with the businesses' lack of ambition and failure to propose a greater level of innovation and investment in their plans. We are also disappointed with the failure to detail the existing plans with any level of specificity, particularly given the enormous amount of detail contained in the regulatory proposals in general.

Essential Energy[26]

The Essential Energy DM strategy outlines a total revenue proposal for DM over the period of $16.2 million. This represents the lowest expenditure of the three DBs at 0.23% of total revenue. Essential does not outline any targeted DM programs at all as part of its strategy, in spite of it being required to identify emerging network constraints in its Distribution Annual Planning Reports. Instead it includes a broad based

[25] Essential Energy, May 2014, *Demand Management Strategy* (CEOP1121).
[26] Ausgrid, August 2013, *Demand Side Engagement Strategy.*

DM program of $13.7 million and a pilots and trials program of $3 million. This is disappointing given that regional areas should provide opportunities for targeted DM programs. Traditional network solutions servicing remote areas are also significantly more expensive than in high density urban areas. However, TEC is pleased that Essential outlines a vision for DM to guide its strategy that includes five separate components, including, firstly, that decreased network expenditure costs are achieved through efficient implementation of DM, and importantly that DM is used as the first option for planning to meet peak capacity requirements. Essential's strategy acknowledges that the business's past DM performance has failed to achieve this vision to date, and they outline some of the reasons, as well as strategies to address this in future. In this regard the Essential plan is much more a strategy document than the other documents reviewed, which were in effect overly brief expenditure plans.

While specific projects for Essential Energy's DMIA spend do not seem to be firmed up, it does outline in some detail a range of options for pilots and trials that is much more thorough than those of Ausgrid or Endeavour Energy. Like Endeavour, it includes some work on residential storage which TEC agrees is needed. We also question whether all of the pilots and trials are 'innovative,' as some of them have been trialed by other NSW and Queensland DBs, and there should be enough information sharing to obviate the need for each network to repeat trials in its own area.

While Essential has not sought an expanded DMIA allocation from the AER for the period, its strategy document does suggest it has allocated an addition $2.3 million in capex to DM related research to supplement the DMIA. This amount does not appear to be included in the totals presented in the DM strategy, however, and as we were only recently able to obtain and examine the Essential Energy strategy we have not been able to confirm whether this is included elsewhere in the broader capex proposal. TEC welcomes this additional investment in research and innovation, although we would question whether it is an appropriate to include such costs as part of the capex forecast.

Responses to questions in the AER Issues Paper

Consumer Engagement

Compared with previous determination processes, in the currently regulatory reset process a greater effort has been made by the DBs to provide clear and digestible summaries of the key components of each of their revenue proposals. This is evidenced by the summary documents provided alongside each substantive proposal. The AER's Issues Paper similarly provides a useful plain English summary of the key issues under consideration, and is clear about the matters on which it is seeking input. The DBs' references to their engagement with consumers, what they have heard, and their reflection on the importance of restricting price increases is both new and welcomed, though it has clearly come from significant external pressure and resulting changes to the regulatory regime, and unfortunately too late to mitigate the significant price impacts that consumers have experienced.

However, other than at AER meetings, TEC has had no engagement whatsoever with any of the NSW DBs in relation to the current regulatory prososals, and we were not made aware of any other meetings or events in which we could have participated. We contrast this with our experience with Transgrid, which has done a much better job of informing us and listening to our views. TEC attended the AER forums at which the DBs presented the outcomes of their consumer engagement. While we have not had time to examine the detail of the reports on their consumer engagement, from these presentations we have gained the impression that their consultation process was largely limited to input from their customer councils and running focus groups and 'willingness to pay' surveys. Our sense is also that the issues may be simplified in such focus

groups, and the questions that are asked may not be presenting the full range of options, rather presenting a simple choice of tradeoffs, for example between price and reliability, and with limited options and information. It seems that there has been little exploration of the possible alternatives or scoping of opportunities for decentralised energy, such as small-scale home storage for peak shaving. We would appreciate a much greater level of engagment around the network plans in particular in relation to energy efficiency and demand management.

There remains a need for consumers to engage in the substantive detail of these proposals in order to have any real impact on the outcomes, and in this regard the barriers to consumer participation in these processes remain very real. In particular, TEC notes the difficulty of piecing together (and sometimes even obtaining) detailed and specific information on the DM strategies of the businesses, the demand and capacity forecasts detailed in the Distribution Annual Planning Reports and network and area capex plans, in order to gain a picture of how DM plans impact, if at all, on capex and opex. We were surprised that the AER did not publish all of the attachments to the businesses proposals on the website, and that of the three businesses only Ausgrid published a full set of documents on their website. After some time searching for the remaining two DBs DM strategies, we had to request these from the AER.

In relation to consultation on DM specifically, the current requirements of DBs to consult on non-network alternatives is inadequate to the extent that the processes are disconnected from the 5 year regulatory price resets. The current rules require the networks to publish Demand Side Engagement Strategies (DSES). These are available on the DBs' websites, with the objective to 'help identify non-network solutions that offer credible alternatives to investment in network infrastructure and lead to lower costs to maintain network reliability.'[27] Ausgrid's DSES is 12 pages and outlines the processes used at Ausgrid to conduct DM screening tests, undertake investigations and community consultation, and select and implement options. The strategy also outlines a process for involving consumers. While the DMES is welcomed, it is not of great assistance in relation to assessing the five year forward regulatory proposals of the DBs. Like the RIT- D processes, consideration of non-network alternatives and consultation on these considerations are disconnected from the broader processes leading to the approval of 5 year regulatory forecasts. In this regard the processes do not provide opportunity for interested parties to provide input when it matters: at the time that capital allocations are being made.

What would be more useful would be the opportunity to comment on a set of standard and comparable DM plans which form a key part of the regulatory proposal processes. Ideally these plans would be central to the process and clearly connected with other planning documents. They would include an assessment of performance over the previous regulatory period using standardised measures, and would set targets for the next period.

Capital Expenditure

TEC does not consider the distributors' capex proposals to have been presented in adequate detail. We note that there has been a significant decrease in the proposed capex in this period relative to the previous, with the aim of limiting price increases to consumers at no more than CPI each year over the period. However, we also note that the previous 5 years saw an unprecedented growth in network assets resulting in a doubling of revenue over the period. The massive increase in previous years should therefore be regarded as a peak, and not as the starting point for a new step change, albeit one limited to CPI.

[27] AER Issues Paper, 34.
[27] *Future Grid Forum: change and choice for Australia's electricity system*, CSIRO, 2013.

Consumers have a right to question why the level of capex should not be brought down to a level prior to 2009, in particular given that the demand forecast for the previous period was considerably overstated and a significant amount of the forecast capital (some $2.96 billion) spend did not eventuate.

In respect of peak demand, if it falls over 2015-19 instead of rising slightly as projected, networks will not require as much capex spending as planned in their revenue proposals: a total of $8.74 billion for the 3 networks and still a huge investment paid for essentially by price rises for consumers. The three networks attribute one-third to two-thirds of their capex spending to asset replacement, and only 11-28% to growth-related spending, and state that 'their proposed augmentation investment is driven by pockets of growth on their respective networks, rather than system wide demand.'[28] However, total new capex spending is still over $1.5 billion for 2015-19, nearly half of it it by Essential Energy. Should this need not eventuate, the networks would benefit, as they have in the current period, from significant excess allowances for a return and depreciation on this capital over the next regulatory period. TEC notes that Ausgrid and Endevour both project an overall increase in summer demand during the next five year period. This is despite that in the prior period Endeavour's actual overall demand fell while Ausgrid's demand was flat (when weather corrected).

While being supportive in principle of revenue caps because they incentivise networks to reduce volumes, TEC recognises that using revenue caps introduces a degree of risk for consumers around the accuracy of demand projections. If actual demand is lower than projected, networks will be able to recover the same revenue, and make higher profits. TEC recognises that minor variations in demand will not result in significant differences to the cost base as most costs are fixed and unrelated to demand. Importantly however, customers bear the risk of lower than forecast demand as their prices are likely to be the same regardless of these changes. A five year determination period can create problems where the regulatory framework is not flexible and adaptable to changes (such as declining demand). This occurred in Queensland over the period of the last reset.

Our larger concern with the accuracy of demand projections is unrelated to profits, but focuses rather on longer term changes to the energy market. In short, the NSW networks expect the next 4-5 years to be much like the last five, in spite of the radical changes to generation technology as well as demand – not to mention the frequent unpredictable changes to government climate and energy policy. The NSW networks participated in the CSIRO Future Grid Forum,[29] so are aware of the various scenarios for radical change to distribution networks through the adoption of smart grid technologies and the introduction of more cost-reflective tariffs, but most importantly, the move to a more decentralised energy system that is likely to accelerate the decline of the traditional energy supply model. We see no recognition of this problem, let alone a plan to adapt to it, whether by getting into the business of distributed storage to reduce the need for network augmentation to meet peak demand, or writing down the value of existing assets to prevent substantial price rises for consumers remaining on the grid. This is despite recent public comments from AER Chairman Andrew Reeves in which he said,

> …we need to re-consider network services so that we make the best use of existing assets. This 'new world' means we will utilise the network in different ways. The network is no longer only about transporting energy from 'A to B'. The vision of the network that I have outlined … is a platform for the two-way trade of electricity.[30]

[29] Speech by Andrew Reeves, Acting Chariman, Australian Energy Regulator, August 2014.
[30] AER Issues Paper, 40.

This lack of forward thinking and planning is reflected in the serious deficiencies we see and have outlined above in relation to the networks' DM plans. If the networks' forecast of of rising peak demand is correct, surely it is more important than ever that their regulatory proposals incorporate detailed DM strategies and plans to ensure we do not see a repeat of the network building of the previous 5 years in future regulatory periods. Surely now would be the time, with a much slower capital program to manage, to shift effort in this direction. While the DBs claim that the impact of their proposed broad based DM activities has been factored into their forecasts including peak demand, and while there is some level of reporting on total demand reduction anticipated, there is limited granular detail of this let alone consideration or modelling of an optimal level of DM to alleviate peak demand growth altogether.

In view of this TEC asks the AER to scrutinise:

- Whether or not the network's overall consumption and peak demand forecasts are reasonable given the experience of falling demand over the last period.
- Whether or not peak demand related capex can be considered reasonable in view of the lack of consideration in the networks' DM plans of targeted (ie. localised) strategies for non-network alternatives to cope with demand.
- Whether forecast capital expenditure for the regulatory control period reasonably reflects the capital expenditure criteria, having regard to capital expenditure factor 10, 'the extent the Distribution Network Service Provider has considered, and made provision for, efficient and prudent non-network alternatives.'

Further observations

We have concerns that new capex is being shifted onto replacement capex and opex. Essential is explicit about this, claiming simultaneously that 'growth related capex will lead to a step up in opex of $31 million of the 2014–19 period,'[31] and that reduced capex program will lead to an increase in opex of $70 million 'to reflect the costs associated with a reduced capex program.'[32] The sense of entitlement in the latter statement is extraordinary; consumers are being asked to pay the supposed costs associated with Essential not being allowed to build as much new capex as previously. Even if this additional opex is in part due to extra maintenance for older assets, networks should be pursuing cost efficiencies in their businesses. We ask that the AER to examine the reasonableness of this assertion closely, given that opex revenues have grown at the same time that the capital program has been scaled back.

TEC has limited resources and capacity to scrutinise the regulatory proposals to the level that is required to critique any of the specific cost items. However, we would ask that the AER closely examine:

- Whether or not capital expenditure projects deferred (and therefore paid for by consumers in the previous period), were efficient deferrals or whether they have been included again in the current period (and thus will be paid for twice).
- Whether replacement capex for 'ageing' assests and 'reliability capex' is warranted given the average age of assets could be expected to have come down given the significant new investment over the previous period.

[30] AER Issues Paper, 39.
[31] Public Interest Advocacy Centre, Moving to a new paradigm: submission to the Australian Energy Regulator's NSW electricity distribution network price determination, 8 August 2014.

- Whether the costs allocated to 'growth' capex is reasonable given that much of the costs of growth capex is paid for by developers.

Operational Expenditure

TEC is concerned by the proposed level of forecast opex for the three businesses, particularly for Ausgrid and Essential Energy who have proposed an increase of 18% and 11% respectively on the previous 5 year period. Ausgrid cites an increase in maintenance costs as the primary cause, along side increases in demand mangement initaitves and one off costs for initiatives aimed at driving longer term efficiency. While maintenance are indeed high comprising $1.26 billion over 5 years, citing DM costs seems ludicrous given it is only $37.3 million. Essential energy have similarly cited maintenance costs (the costs associated with a declining capex program) and the costs of removing vegetation around power lines particiularly in areas of bushfire risk as the primary driver of increased opex. As raised in the previous section, TEC asks the AER to closely examine whether the increase in opex expenditure linked to declining capex is justified, particularly given the lower demand projections and the significant improvements in reliability and the investment in new assets that occurred in the previous regulatory period.

We also note that opex allowances were also underspent in the previous period by $313 million and that the DBs are now also claiming significant benefits for this period under the Efficiency Benefit Sharing Scheme. We understand the underspend on opex results is retained by the DBs as profit and that customers have paid for this. We therefore cannot see why customers should pay again in this period under the EBSS, even if the underspend by DBs resulted from efficiency. Unless there is benefit to customers from such efficiency it is difficult to understand why the DBs should be rewarded.

We also ask the AER to disallow 'dis-synergy' costs associated with the sale of the retail businesses and separation from the distribution businesses. Such costs should not be borne by consumers but rather provision for these costs should have been made through the profits on the sale.

Rate of Return

TEC has decided not to focus on the rate of return questions in responding to this issues paper. However, we note that the rate of return (RoR) as proposed by the businesses is even higher than the upper range suggested by the AER's rate of return review. We also note that the businesses propose to deviate from the approach outlined in the AER Rate of Return Guideline. These guidelines have been developed as part of the Better Regulation Program which has involved considerable consultation with industry and consumers. Given the transparent, consultative and detailed approach which has been taken toward the development of these guidelines, we believe the threshold for justification of departure from the guidelines must be placed very high, and are dismayed that the DBs have not followed the relevant Guideline.

We are aware that PIAC has taken a particular interest in this aspect of the regulatory proposals and support its views in relation to this aspect of the distributor's regulatory proposals.[33]

[33] Public Interest Advocacy Centre, Moving to a new paradigm: submission to the Australian Energy Regulator's NSW electricity distribution network price determination, 8 August 2014.

Recommendations

The AER should:

1. Make it clear to the DBs, consumer groups and other stakeholders in future publications and fora, and especially in its Draft decision in November 2014, that that it is taking DM much more seriously in the current reguatory reset than it has for previous resets, or up till now in the case of the curent reset for the NSW DBs.
2. Require each of the NSW networks to plan for substantially more DM projects and activities for 2015-19 than is contained in their revenue proposals. An appropriate target, permissable under the existing DMEGCIS, would be at least 1% of total forecast revenue.
3. Anticipate the new Rule 6.6.3 (DMEGCIS) and allow greater returns on DM projects and activities.
4. Engage with TEC, Ausgrid and other stakeholders around the Ausgrid proposal for a Demand Management Benefit Sharing Scheme.
5. Require the networks to be far more specific about the nature of both their broad-based and targetted DM plans.
6. Reduce network revenue should the networks fail to substantially increase their DM plans.
7. Require Endeavour and Essential to explain why they are not planning to spend $1 million pa under the DMIA, and reduce new capex revenue by at least the same amount where there is no adequate explanation.
8. Consider whether Ausgrid's request for $8.2 million for 'technical support and reporting' in relation to its DM strategy is warranted in light of the unambitious nature of this strategy and Ausgrid's $1.58 billion opex proposal.
9. Reject Essential's unjustifiable opex claim for $70 million 'to reflect the costs associated with a reduced capex program' and so-called 'dis-synergy' costs associated with the sale of the retail businesses and separation from the distribution businesses, since neither produces any benefit to consumers.
10. Require networks to develop a strategy to deal with a potential fall in peak demand and overall consumption in 2015-19, including a continued high uptake of rooftop solar and distributed storage.

Yours sincerely,

Jeff Angel
Executive Director