



Oakley Greenwood

Response to comments on the peer review of WTP research submitted by SAPN

**prepared for:
Australian Energy Regulator**



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1. Introduction

1.1. Background

In accordance with new regulatory requirements, SA Power Networks (SAPN) developed and undertook *TalkingPower*, its Consumer Engagement Program (CEP), as part of the preparation of its 2015-2020 Regulatory Proposal.

Oakley Greenwood (OGW) was commissioned by the Australian Energy Regulator (AER) to review one aspect of SAPN's CEP: the Willingness to Pay research undertaken by the NTF Group.

OGW's peer review comments were taken into account in the AER's Preliminary Decision regarding SAPN's Regulatory Proposal, and SAPN made comments (and included comments prepared by the NTF Group) in response to OGW's peer review in its Revised Regulatory Proposal.

The AER has commissioned OGW to review and respond to the comments made by SAPN and the NTF Group as an input to its Final Decision. This document contains OGW's responses in accordance with the scope requested by the AER, which is discussed in the following section.

1.2. Scope

The scope of work commissioned by the AER that is addressed in this report was as follows:

- 1 *The AER seeks Oakley Greenwood's views highlighting any points of difference with the points made in the subsequent NTF Group report (Attachment C.7). In particular, there are two main points of difference, based around whether the recommendations of Oakley Greenwood could be applied in practice. That is:*
 - (a) *Oakley Greenwood stated that regarding the description of choices scenarios within a WTP survey should have stated outcomes. The NTF Group agree in theory but does not consider it feasible in this instance (e.g. verifiable links that every "x" km of undergrounding in bushfire areas would reduce the number of bushfires by "y").*
 - (b) *The NTF Group considered that the approach put forward by Oakley Greenwood to translating WTP findings into service improvements is 'interesting but untested'. Does Oakley Greenwood disagree on this point, and if so, is its proposed approach materially preferable to NTF's approach?*
- 2 *Comment on whether the weight SAPN has placed on the WTP survey in support of its undergrounding program and vegetation management program is warranted. In particular, comment on how the AER should have regard to the WTP survey findings, considering that OGW concluded that the WTP survey should only be interpreted as providing information on customers' WTP for specific service levels.*
- 3 *The AER has also asked that Oakley Greenwood comment on SAPN's broader customer engagement strategy, that is, the other activities undertaken by SAPN beyond just the willingness-to-pay survey that was the focus of the report prepared by Oakley Greenwood as an input to the AER's preliminary decision.*

In undertaking our review the AER directed us to have regard to the following documents:

- AER preliminary decision SAPN draft determination -- Attachment 6, section B.2.2
- SAPN revised regulatory proposal -- chapters 3 and 7, section 7.7

- Attachment C.6 to revised regulatory proposal -- The NTF Group -- report on AER discussion of willingness to pay research
- Attachment C.7 to revised regulatory proposal -- The NTF Group -- Report on Oakley Greenwood peer review
- Attachment C.1 to revised regulatory proposal -- Banarra -- Stakeholder engagement assessment -- final gap analysis report SA Power Networks
- Attachment C.2 to revised regulatory proposal -- The NTF Group -- Report on SACOSS consumer research
- Attachment C.3 to revised regulatory proposal -- The NTF Group -- Report on Business SA research
- Attachment C.4 to revised regulatory proposal -- The NTF Group -- Report on CCP2 comments
- Attachment C.5 to revised regulatory proposal -- The NTF Group -- NTF response to SACOSS

The AER also stated that the material provided to us as part of the peer review we undertook in April 2015 might also be relevant.

1.3. Limits and caveats

It should be noted that this review was limited to the documents above. The review did not have access to the datasets that resulted from the surveys or other research undertakings that were conducted throughout the course of SAPN's CEP.

1.4. Structure of this report

The remainder of this report is structured as follows:

- Section 2 provides our responses to the specific issues that the AER asked us to comment on in the scope they provided to us for this assignment, as quoted above.
- Section 3 addresses our conclusions and our thoughts more generally concerning the role and use of consumer engagement and WTP in the regulatory process and regulatory decision-making.

2. Responses to the specific items raised for comment by the AER

This section of the report provides our responses to each of the items on which we were requested to comment by the AER.

We note that the specific comments about our peer review of the WTP research that SAPN submitted as part of its initial Regulatory Proposal that the AER requested us to respond to were made by:

- the NTF Group, in Attachment C.7 to the Revised Regulatory Proposal, entitled 'The NTF Group Report on Oakley Greenwood Peer Review' (3 July 2015), and
- SAPN, in its Revised Regulatory Proposal 2015-2020 (July 2015).

All of the comments made in those two source documents appear in the NTF Report, while some are also noted in Chapters 3 and 7 of the main body of the SAPN Revised Regulatory Proposal. For simplicity, we have addressed our responses to the points as they were raised by the NTF Group in Attachment C.7 to the Revised Regulatory Proposal.

2.1. Presenting statements regarding outcomes in choice scenarios

In our peer review report we commented on the nature of the choices that were presented to respondents to the NTF WTP study in regard to the various service initiatives proposed regarding undergrounding and vegetation management in High Bushfire Risk Areas (HBFRAs) and Bushfire Risk Areas (BFRAs). Specifically, we noted that:

. . . the choice that is being provided is about inputs, not outcomes. Presumably, the objective of these service activities is to reduce the incidence of fires in bushfire risk areas. What is lacking is the relative reduction in fire risk that could reasonably be expected to result from the implementation of each service bundle as compared to the status quo. In effect, the respondent is being asked to choose between different cost levels without understanding what the benefit level is likely to be.¹

In the report it prepared for SAPN on our peer review the NTF Group states:

In relation to linking attribute levels to quantified outcomes, we agree this is desirable, but only where it is possible to do so robustly. In accordance with the philosophy of conservative prudence, SAPN did not include any content in the research it could not objectively verify. While in an ideal world we agree it would have been desirable to be able to state likely outcomes, it was not possible to establish causal links between the service improvements tested and real world outcomes. For example, it is not possible to establish a causal link between the number of kilometres of undergrounding in high-risk bushfire areas and the expected reduction in the number of catastrophic bushfires which will occur over the next decade. In the absence of robust, verifiable linkages between attribute levels and expected outcomes, these estimates were excluded from the research design, in line with the overriding principle of prudence and conservatism. Finally, it should be recognised that the attribute exhibiting greatest consumer willingness to pay was vegetation management and the aesthetic benefits of the service improvement were visually depicted for respondents, which to the largest practical extent possible, did indicate expected outcomes. So while NTF agrees with the theoretical principle espoused by Oakley Greenwood, it was not practically feasible in this instance. [SAPN Revised Regulatory Proposal, Attachment C.7, p 5]

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OGW, *Peer review of the willingness to pay research submitted by SAPN*, 20 April 2015, p 6.

We do not fault the NTF Group for not being able to establish a causal link between the amount of undergrounding and/or vegetation management undertaken and the probability (let alone the impact) of bushfires occurring. However, NTF goes on to say that “In accordance with the philosophy of conservative prudence, SAPN did not include any content in the research it could not objectively verify.” That sounds like a robust principle. However, they did leave out relevant, objectively verifiable content; namely, that there is no “causal link between the service improvements [being] tested and real world outcomes”.

Surely the construction of the question - with greater levels of treatment costing more and resulting in more kilometres of powerlines being undergrounded and more area subjected to vegetation management - would have led respondents to expect that the higher levels of treatment would provide greater protection against bushfires occurring.

But as NTF’s comments above indicate, this is not the case -- and that is known. In our view, a more prudent and conservative approach would have been to make it clear to respondents that:

- bushfires can start for a number of reasons; powerlines are only one potential cause, and most bushfires are not caused by powerlines;
 - in this regard, it would have been very useful if any information that is available on the proportion of bushfires in SA or Australia that have been caused by powerlines have been cited;
- powerlines can be a cause of bushfires in instances where a they emit a spark that ignites nearby vegetation
 - sparks can result from a number of causes, including lightning strikes or poles and wires breaking or being struck by objects
 - in this regard, undergrounding eliminates almost all potential for a powerline to start a bushfire, whereas vegetation management reduces the potential but does not in any way eliminate it.

We recognise that explanations of this type and detail pose a challenge for inclusion in a WTP survey due to the time they take to explain and the potential complexity they add to the respondent’s choice scenarios. However, asking customers to make choices where they are not as informed as possible of the consequences of those choices runs the risk of informing policy, investment or pricing decisions that may not turn out to be popular once the consequences are better understood².

It is also important to note, as pointed out by the AER in its Preliminary Decision, that in SA:

*several legislative amendments relating to bush fire safety were made as a consequence of the Ash Wednesday bushfire in 1983. In particular, SA is the only state that has legislated the authority to the electricity entity to turn off the power in extreme bush fire weather, which further reduces the risk of bushfire starts from network assets.*³

² As an example, a decision to impose a high reliability standard in the wake of power outages may seem a good idea and be popularly received. However, the impact on cost - which is unlikely to be fully understood and certainly not experienced at the time of the announcement - may engender as much or more negative reaction once it surfaces as the positive opinion the announcement to improve reliability received when it was announced.

³ AER, *Preliminary Decision, SA Power Networks determination 2015–16 to 2019–20, Attachment 6 – Capital expenditure*, p 6-53. The legislation cited is the SA Electricity Act, section 53 (1) and (2).

This ability for SAPN to suspend supply in the event of high (and presumably impending) bushfire risk clearly offers an alternative to other bushfire mitigation activities, including vegetation management and undergrounding of powerlines. Further, this is an alternative that could have been tested in the willingness to pay research. Such an approach might have:

- Presented information on the relative frequency of high bushfire risk events (e.g., average and possible number of times per year in HBFRAs and BFRAs)
- Asked people in HBFRAs and BFRAs:
 - whether they would prefer to be turned off on high bushfire risk days or pay X more per year for each bushfire mitigation
 - whether from a community perspective them being turned off Y times per year versus all consumers paying X more per year is preferable
- Asking customers in NBFRAs whether, from a community perspective, it would be preferable to turn people in HBFRAs off up to Y times per year or making all consumers pay X more per year is preferable.

The above are not intended to be actual survey questions, and some of those topics would almost certainly benefit from exploration in qualitative approaches (e.g., workshops, focus groups). They are offered as suggestions for the types of issues that could be - and probably should have been - pursued, given the specific legislation that exists in SA.

The point is that despite the fact that no one wants to have their power turned off, customers may prefer that to paying for undergrounding and vegetation management, taking into account the frequency of these events and the relative efficacy of the various mitigation approaches.

Similarly other combinations of supply suspension and technical solutions such as UPS systems could also have been considered on a technical and cost level by SAPN and tested in the WTP process as applicable.

Finally, as was also briefly discussed in our peer review report, the VCR (value of customer reliability) could be used to assess the value of the loss in amenity and productivity likely to be experienced in HBFRAs and BFRAs from the suspension of supply on high bushfire risk days with the cost of the proposed mitigation strategies, again taking into account the frequency of these events and the relative efficacy of the various mitigation approaches.

In summary, it remains our view that the presentation of the undergrounding and vegetation management scenarios in HBFRAs and BFRAs was not conducive to respondents making trade-off decisions that were *as informed as possible*.

2.2. Adoption of service improvements based on WTP research results

In its WTP research the NTF Group adopted the threshold of 55% of respondents being willing to pay as the threshold for determining that “a given proposal has community endorsement”⁴. They pointed out this was more stringent than the 50% threshold generally and stated that “in NTF’s opinion SA Power Networks has an evidence based case for improvement proposals where 55% of the community or more are willing to fund the proposal”⁵. Based on this, SAPN sought funding for the service enhancements that met this threshold in its Regulatory Proposal.

⁴ NTF Group, *SAPN Targeted Willingness to Pay Research - Research Findings*, July 2014, p 5.

⁵ Ibid.

We did not disagree that this threshold might be a reasonable basis for presenting research results as indicating that a specific service initiative had “attracted a significant majority of community support”. However, we rejected the notion that this threshold necessarily constitutes a sufficient basis for imposing the costs associated with that service initiative on what could be up to 45% of the customer base.

In our peer review report we presented an alternative means for making capital and operating expenditure decisions based on WTP research results. The key features of this approach were to identify that option that:

- (a) met the threshold test for acceptance in the sample group (properly weighted), while
- (b) minimising the cost imposed on the proportion of the members in the relevant population as a whole (as extrapolated from the sample group) that would be expected to be unwilling (whether due to lack of interest or lack of ability) to pay for the service initiative.

Our view was that such an approach might be preferable, because, as we stated in our peer review report:

our view is that it is important to balance the desire among some customers for higher service levels with the amount of cost that desire imposes on other customers who are not willing to pay for the higher level of service. This would allow the majority to affect the collective outcome while seeking to minimise the impact of the majority will on others.⁶

The NTF Group found this to be an ‘interesting alternative’ (SAPN said it was ‘interesting but untested’⁷), and noted that the “conventional” rule is to use 50% of a sample being willing to pay as the threshold for endorsing a program, citing research conducted by the Environmental Economics Research Hub and Australian National University, as examples of the use of this convention⁸. The NTF Group went on to state that:

any departure from accepted practice would require endorsement by decision makers, such as the AER. It is important to stress that in line with the principle of prudence and conservatism, NTF imposed a more stringent test than the generally accepted 50% threshold. NTF required a 55% majority in all three key behavioural segments, including hardship customers. [SAPN Revised Regulatory Proposal, Attachment C.7, p 6]

As a first point, we do not think that the fact that the approach we put forward has not been used before is a reason to reject it – it may still be a good idea, and if so, should be considered for adoption.

We also note that neither of the sources cited by the NTF Group indicate whether the results of the WTP research were adopted in any policy or actual program funding decision. In the case of the EERH study, which concerned the willingness of Brisbane households to pay for additional frequency of kerbside recycling, a 50% threshold was mentioned in the questionnaire.

Specifically, the questionnaire included the following statement prior to the presentation of the WTP questions:

⁶ OGW, *Peer review of the willingness to pay research submitted by SAPN*, 20 April 2015, p 10.

⁷ SAPN, *Revised Regulatory Proposal*, July 2015, p 33.

⁸ See SAPN, *Revised Regulatory Proposal, Attachment C.7*, July 2015, p 6 for references to these studies.

*Kerbside recycling would only continue to be provided if more than 50% of households across Brisbane region are willing to pay for it. If a decision is made to continue providing kerbside recycling it would be compulsory for all households.*⁹

The authors explained the inclusion of this statement as follows:

*A provision rule can improve the incentive compatibility of non-market valuation studies as it provides a connection between respondent choices and actual outcome (Hoen and Randall 1987) and removes ambiguity about how respondent choices will impact policy. It provides an incentive to respond truthfully. The majority decision rule combined with the nature of the good (it is able to be provided to each individual household separately) results in there being no incentive for respondents to provide a "yes" response if they do not want the scheme: If there are enough votes then the good will be provided to each household at a cost to all respondents. Similarly, there is no incentive for respondents to provide a "no" response if they do want the scheme as insufficient votes will lead to the service not being provided.*¹⁰

Therefore, while the 50% threshold may be a 'convention' with regard to the hurdle for presenting research results, and may be a means for improving the reliability of survey responses, we did not find anything in either of the sources cited by NTF that documented the use of the 50% hurdle as a recognised basis for policy decisions being made. Doing the research and presenting the results with the use of a specific threshold may be very useful conventions, but they cannot be taken as providing a binding basis for policy or investment decisions. They remain inputs to good decision-making. The approach we recommended was in regard to the use of WTP results in decision-making.

In addition, we note that:

- We did not take any exception to the threshold used by the NTF Group for considering that a particular service initiative had received a sufficient level of acceptance by the survey sample to warrant consideration for implementation. In fact, what we said on this point in our peer review report was "we find the threshold criterion plausible - it is intuitively persuasive."¹¹

- However we also stated that

We do not agree that service bundles that achieve higher acceptance levels are necessarily better than those that achieve lower levels (but that still exceed the 55% acceptance threshold).

*Our reason for this is that once the initiative has been deemed to be acceptable by dint of exceeding the 55% acceptance threshold, all customers will be required to bear the additional cost associated with the initiative. This amounts to an impost on customers who did not choose a particular service bundle by those who were willing to pay more. And the amount of that impost is the same amount that those who were willing to pay accepted.*¹²

⁹ Gillespie, R. & Bennet, J. Environmental Economics Research Hub Research Reports (2011), *Willingness to pay for kerbside recycling in the Brisbane Region*, p 11.

¹⁰ Ibid.

¹¹ OGW, *Peer review of the willingness to pay research submitted by SAPN*, 20 April 2015, p 10.

¹² Ibid.

In summary, we did not object to the way in which the NTF Group presented the results of the WTP research. Rather, we felt that the way in which the results were used to determine the preferred service option had some relatively obvious equity consequences that could and should have been more carefully considered. Specifically:

- The approach adopted by the NTF Group for determining the threshold conditions at which a service option should be considered to be a **candidate** to be considered for adoption based on community-wide WTP (the 55% WTP level) is sound.
- However, the decision process to be used in selecting the preferred option from the set of candidate options should consider and seek to minimise the financial impact on customers (and specific customer segments) that were unwilling (whether due to lack of interest or lack of ability) to pay for the service initiative.
- In short, we do not believe that the 55% WTP threshold on its own is a sufficient justification of capital expenditure that will impose costs on all customers.

3. Conclusions and thoughts on the role and use of consumer engagement and WTP in the regulatory process and regulatory decision-making

This section of the report provides thoughts that have occurred to us on areas of potentially more general concern regarding the role of the learnings that come out of the consumer engagement process (including any WTP studies undertaken within it) in the regulatory process and regulatory decision-making.

These thoughts have been sparked by our review of SAPN's WTP and broader consumer engagement program, and we draw examples from that research and the SAPN CEP in our discussion of these points.

We note that SAPN commissioned an independent review of its CEP by Banarra, an independent certified sustainability assurance expert, to undertake an assessment of its CEP¹³. Banarra assessed the consumer engagement work that SAPN had done against the principles and other process requirements of the AER's Consumer Engagement Guideline and other relevant standards (such as AA1000SES).

Banarra's report states that:

SA Power Networks' TalkingPower program was comprehensive and largely met both the principles and process requirements, with some gaps. Key strengths of the TalkingPower program included: the use of collaborative, accessible and timely engagement mechanisms; the transparent disclosure and reporting of key information and consultation outputs to stakeholders; and a clear commitment by SA Power Networks to using the consultation outputs to assist its decision-making and to inform the design of the 2015 20 Regulatory Proposal.

*Gaps identified relate primarily to aspects of the TalkingPower program that were designed or completed prior to the publication of the AER Guideline in November 2013.*¹⁴

¹³ Banarra, *Stakeholder Engagement Assessment - Final Gap Analysis Report*, 24 April 2015, which appears as Attachment C.1 in SAPN's *Revised Regulatory Proposal*.

¹⁴ SAPN, *Revised Regulatory Proposal, Attachment C.1*, 24 April 2015, p 3.

Our comments that follow are not based on a compliance review of SAPN's CEP centered on formal process or quality guidelines. Rather, our comments are based on what we *would have expected to see* in a consumer engagement process undertaken in the Australian electricity industry. That is, our comments concern how the specific characteristics of the electricity industry should be taken into account in the design and implementation of a distribution business' CEP, drawing on examples from the SAPN determination process to illustrate our points.

We also provide our conclusions regarding the use to which WTP was put in the SAPN regulatory proposal, drawing on the discussion in section 2 as well as our thoughts on these broader issues.

3.1. Broader considerations regarding SAPN's customer engagement process

3.1.1. Defining whether issues identified by consumers are core electricity matters

Any service improvement that is proposed that is not clearly a core distribution business requirement, should be tested in the CEP as to how it can best be funded. This testing should be undertaken with both customers and other stakeholders that could be expected to be involved or associated with that service improvement.

For example, one interesting issue that arose in the SAPN proposal related to the WTP analysis of undergrounding parts of the network for road safety reasons. The capex associated with these service improvements was not approved in the AER's Preliminary Decision and was subsequently dropped by SAPN and did not appear in its Revised Regulatory Proposal. In rejecting the capex associated with this service initiative the AER stated the following:

The AER was of the view that the capital expenditure objectives provide that SA Power Networks' forecast capital expenditure should only include expenditure to maintain the safety of the distribution system through the supply of SCS, and to comply with regulatory obligations or requirements, including in relation to reliability. The AER considered the driver behind the road safety undergrounding program is to improve road safety rather than maintaining network safety or reliability, therefore the proposed expenditure was not justified.

In addition, the South Australian Minister for Mineral Resources and Energy submitted that road safety initiatives should be the responsibility of the relevant Government agencies, not the South Australian electricity customers and SA Power Networks.

SA Power Networks accepts the AER's Preliminary Determination in relation to this program and has not incorporated the road safety program into this Revised Proposal.¹⁵

Before testing such issues with customers it would have been prudent from a stakeholder expectation perspective for SAPN to have entered conversation with government to determine whether this is in fact a service that should actually be paid for by the community through its electricity network charges.

As it turned out, the view of the SA Government was that this should not be the case, but they do not seem to have had the opportunity within the CEP process (or any parallel undertakings) to make this observation. Further, while SAPN's CEP reported that this was an area of keen interest to customers that participated in the CEP, it is not clear whether customers' views were sought as to whether the cost of such improvements should more logically be funded by electricity tariff payers or taxpayers.

Had this been explored earlier in the CEP process, a decision could have been made to remove this area from the process or to continue assessing its importance to customers with:

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SA Power Networks, *Revised Regulatory Proposal 2015-2020*, page 74.

- an understanding of the government's position on the matter and what it was prepared to do regarding it, and
- the ability to educate customers about the locus of responsibility for services in this area as well as their willingness to pay for these service improvements as either electricity customers or taxpayers.

In general, we would consider that where service improvements that are at the margins of a distribution business' responsibility are identified, the distribution business should, as part of its customer engagement process, formally seek to consult with those other stakeholders that have responsibilities relating to the service improvements in question. This consultation should address how best to conceptualise the options for improving service in this area, the roles to be played by the distribution business in improving service in this area, and how any such improvements would be funded.

3.1.2. Defining whether customer concerns should be treated as substitutes or additions

There is also the issue of considering whether a new service or a significant change in the level of a service currently offered by the distribution business:

- should be undertaken as an activity over and above its current suite and level of services, or
- should be considered as possibly substituting for a current service or as a trade-off against a potentially lower level of service in an area currently being provided by the business.

To our mind it is not sufficient that simply because customers express a concern or expectation in the CEP that it is then automatically seen as being in some way additional to the distributor's business-as-usual case.

Rather, the customer engagement process should include a means for assessing the level of value that customers place on the services currently being offered by the business, and how the value of those services compares to the value of any new service areas or enhancements to existing service areas arising from the CEP.

Leaving this step out

- fails to recognise that just as certain things become more important to customers, other things may become less so, and
- runs the risk of unnecessarily increasing costs where a better overall level of service provision may have been able to be delivered at less cost in absolute terms or at least less cost than the full incremental cost of the new services or service enhancements.

We think this is an area in which the AER and SAPN have come from different perspectives - and therefore not surprisingly arrived at different views. In its preliminary decision the AER more than once cited reasons or mounted arguments for expenditure as more a core activity (or not directly attributable to network provision, or not proven to be otherwise) rather than a new marginal cost to the core activities.

In some cases, these may also be areas that should be addressed by - or at least with - other agencies, as outlined above. Notably in our view, in the SAPN determination process it appears that the issues of major disagreement related to *community issues* rather than those easily identified as being core customer-based power supply issues.

The traffic blackspot issue discussed above is one example, the vegetation amenity issue is another. Where such issues become less readily identifiable as core to power supply, it is just as important that the CEP process investigates *how the service should be funded*, as it is to conceptualise and test customers' willingness to pay for specific service improvement initiatives.

That said there may well be areas in which customers do want increased service that are above and beyond the regulations or core supply requirements. For example, in the SAPN research the "top three" community safety and reliability initiatives - inspecting, maintaining and upgrading networks; bushfire prevention activities; and hardening the network against lightning storms - fall into areas of core concern to a network business.

The level of service now wanted by customers could be such that they can be delivered through trade-offs with other areas of expenditure, or they may be such that they require new expenditure which may or may not be funded wholly or in part by electricity network tariffs. In such cases, it would be very valuable for the CEP to:

- provide the information required to determine whether the service enhancement could be funded in part by a trade-off in the costs of other services, or whether it is an area in which new and incremental expenditure is required, and
- in the case of service areas or service levels that require additional funding, provide evidence that they cannot be funded by reducing expenditure in other areas without a material negative impact on those areas or other drivers of customer satisfaction.

3.1.3. More direct correlation of expenditure proposals with customer engagement responses

There is no doubt that the customer engagement process can and should identify customers' expectations and the drivers of customer satisfaction - and SAPN's *TalkingPower* is successful in this regard.

However, where the information gleaned from the customer engagement process is used to support or form the basis for a capital expenditure, it becomes imperative that the activities to be funded be shown to be aligned with the customers' priorities and expectations, and the drivers of satisfaction identified in the CEP research. Without this, the CEP cannot be used to justify selected expenditure initiatives.

In the case of the SAPN proposal, the relationship of the WTP research to the proposed capital expenditure proposal was clear, but, as we noted in our peer review report:

The genesis of the WTP study makes it clear that its results cannot be construed as providing information on anything other than customers' willingness to pay for different levels of undergrounding and vegetation management in three specific areas:

- *High Bushfire Risk Areas and Bushfire Risk Areas*
- *Non-Bushfire Risk Areas*
- *Traffic Blackspots (undergrounding only).*

No conclusions can be drawn regarding whether customers would prefer SAPN to undertake other activities instead of activities related to undergrounding and vegetation management, and no conclusions can be drawn regarding consumers' willingness to pay for other services.

Furthermore, the WTP study did not ascertain whether customers who expressed a willingness to pay for at least one option in more than one of the safety and reliability initiatives would actually be willing to pay for both (or all three) of the safety and reliability initiatives - which was essentially assumed in SAPN's conclusion from the study.¹⁶

This point is important when assessing the results of a WTP research design of the type conducted by the NTF Group for SAPN. The research design works by asking customers to state their preference to a series of different options about a particular service. For example, in the NTF Group's WTP questionnaire customers were asked to state their preferences regarding:

- Vegetation management in bushfire risk areas
- Vegetation management and undergrounding powerlines in high bushfire risk areas
- Vegetation management and undergrounding powerlines in non-bushfire risk areas to improve visual amenity
- Undergrounding to address traffic blackspots.

In each case, at least one of the service improvement enhancements - and in three of the four cases, more than one service enhancement - exceeded the 55% threshold. But customers were never asked if they would be willing to pay for service enhancements to be undertaken in all four areas at once.

The point here is that identifying that a majority of customers would be willing to pay for service enhancements in a number of different areas does not necessarily mean that they would be willing to pay for all of them. Nor does it actually assist in determining in which area they would *most* prefer to pay for a service enhancement.

As a result, the conclusion that its customers are willing to pay for all - or even several - of these being undertaken at the same time cannot be said to be warranted based on the research that was undertaken.

In the same section of our peer review report we also said:

While the decision to test consumers' willingness to pay for these services is not illogical, there would seem to be equally valid reasons to widen the focus of the willingness to pay study.¹⁷

In this case, our point was that the choice of service improvements to be included in the WTP did not reflect the full range of service improvement areas that had been revealed by the work undertaken by SAPN in its CEP as being of priority interest to its customers.

In this regard, we noted that the Stage 1 research of the CEP had identified 13 areas in which its customers desire service from SAPN, seven of which have nothing to do with undergrounding of powerlines or vegetation management. These included services in areas such as:

- developing a variety of channels through which customers can interact with SAPN,
- maximising opportunities to improve customers' service experience
- considering the installation of smart meters,
- continuing upgrades to support customers' use of new technologies,
- developing cost-reflective tariffs, and

¹⁶ OGW, *Peer review of the willingness to pay research submitted by SAPN*, 20 April 2015, pp 7-8.

¹⁷ Ibid.

- educating customers about new technologies, changes within the electricity industry and SAPN's role within it.

We also cited research undertaken by NTF that identified the contribution of various drivers to customers' satisfaction. The most significant driver was found to be interruption frequency, contributing 35% of customers' overall satisfaction level. The next two most important were speed of restoration of power following an outage, and call centre responsiveness, accounting for 21% and 17% of customers' satisfaction levels respectively. Overhead/undergrounding was of itself only a 4% driver for example.

Our point was that WTP could have been undertaken regarding potential service improvements in any or all of these other areas as well. We agree with the NTF Group that any individual WTP study cannot address more than a limited number of service improvements. This is because doing so (while still using enough questions on each service area to get statistically robust answers) will almost certainly make the questionnaire very long, potentially resulting in respondent fatigue, survey abandonment and/or a reduction in the quality of the responses received.

However, this limitation, valid though it is, does not explain why the specific service initiatives included in the WTP were chosen *instead* of other candidate service initiatives, many of which had much higher satisfaction weightings.

The WTP research has provided information on the level of interest among SAPN's customers in various levels of undergrounding and vegetation management (as revealed by their willingness to incur the costs of those service levels). But it provides no information at all on whether customers would prefer these services as compared to services in other areas - such as services that might directly support customers that want to install and use distributed generation technologies, or services to restore power more quickly after outages.

Ideally, therefore, it would be desirable for the proposal to make clear how the customer engagement process was used to:

- identify those service initiatives that were of most importance to the customers,
- which of those service initiatives the business is proposing to undertake (based on customer engagement findings and taking into account the points raised in the following two sections), and
- the proposed capital and operating costs associated with those initiatives based on the above and any WTP research that was undertaken.

3.2. Whether the weight placed by SAPN on the WTP survey in support of its undergrounding program and vegetation management program is warranted

Based on the thoughts above and those provided in section 2, our view is that SAPN relied too heavily and exclusively on the WTP survey in deciding on the nature and scope of the undergrounding and vegetation management program it proposed in its original Regulatory Proposal.

The key inputs to this view are:

- The WTP research did not address many of the areas linked to customer satisfaction and in which customers, based on the results of earlier stages of the CEP, might have been willing to pay for service improvements. Without a clear link between customers' priorities and expectations and the items investigated in a WTP survey, those research results cannot be seen as sufficient or even potentially relevant to decisions regarding the selection of service initiatives to receive additional capex funding.

This is discussed further in section 3.1.3 above and in pages 7 through 9 of our peer review report.

- The service initiatives tested in the WTP had not been established as core and sole (or even primary) responsibilities of SAPN as an electricity distribution business. While customers may be interested in these services and express a willingness to pay for them, it is not clear that these services should be paid for by electricity tariff payers as compared to taxpayers.

This is discussed in section 3.1.1 above.

- The service levels presented in the WTP research did not provide quantified outcomes that customers could use in evaluating the costs and likely delivered benefits of the different service levels presented. The construction of the service levels offered as means for reducing the risk of bushfires in certain areas would have led respondents to expect that the higher levels of treatment would provide greater protection against bushfires occurring. However, this is not strictly the case.

This is discussed in section 2.1 above.

- The service initiatives tested in the WTP did not in all cases include all relevant options. This was particularly the case regarding undergrounding and vegetation management in bushfire and high bushfire risk areas, as discussed in section 2.1.
- The decision regarding the level at which to fund the undergrounding and vegetation management program proposed in SAPN's original Regulatory Proposal for bushfire risk , high bushfire risk and non-bushfire risk areas:
 - did not consider ways in which the interest expressed by the majority of survey respondents could be addressed,
 - while not imposing excessive costs on customers who might be less interested in, or less willing (or perhaps unable) to pay the additional costs that were acceptable to that majority of the customers.

We further note that SAPN or the AER could have adopted this approach as the basis for the cost and therefore level of the program to be considered for capex funding without changing any conventions regarding the structure or presentation of WTP research results.

These is discussed in section 2.2 above and section 2.3 of our peer review report.