

Attachment 5.13

Key assumptions underlying capex and opex forecasts

May 2014



The National Electricity Rules (the rules) require the AER to make a constituent decision on whether to accept, or reject and substitute, the forecast capital expenditure (capex) and forecast operating expenditure (opex) that Ausgrid sets out in its building block proposal for standard control services. To enable the AER to make its constituent decision, Ausgrid's building block proposal must include the total forecast capex and forecast opex for the relevant regulatory control period which the Distribution Network Service Provider considers is required in order to achieve the capital and operating expenditure objectives.

Schedule 6.1.1 and Schedule 6.1.2 of the Rules require a DNSP's building block proposal to contain information and matters relating to capital expenditure and operating expenditure respectively. The purpose of this document is to meet the requirements of Schedule 6.1.1(4) and (5) relating to forecast capital expenditure, and Schedule 6.1.2 (5) and (6) relating to operating expenditure by identifying the key assumptions that underlie the capital and operating expenditure forecasts. We note that the certification of the reasonableness of the key assumptions by the directors of Ausgrid is in a separate attachment to the regulatory proposal titled, "Directors' certification of key assumptions".

The term 'key assumption' is not a defined term in the Rules. Accordingly, we reviewed previous regulatory proposals submitted by DNSPs and regulatory determinations of the AER. Our review process indicated that there was a diverse range of approaches used to identify key assumptions. Our view is that a 'key assumption' could be best defined as a small number of high level assumptions relating to facts or circumstances, the truth or correctness of which underpins or is highly material to the expenditure forecasts.

Based on this reasoning, we have identified the following assumptions which we consider are highly material to our expenditure forecasts.

Key assumption 1	The Legal Entity, Ownership and Organisational Structure are those in place at the time forecasts are finalised.
Key assumption 2	The capital program has been prepared on the basis of amendments to the NSW Design Reliability and Planning Licence Conditions that will come into effect on 1 July 2014.
Key assumption 3	Capex programs have been developed using a strategic management framework that prioritises expenditures for maintaining a safe, reliable and sustainable network.
Key assumption 4	Growth capital expenditure forecasts are derived from the spatial demand and customer connection forecasts included in the regulatory proposal.
Key assumption 5	Forecast labour cost escalation has been set consistent with our Enterprise Bargaining Agreement (EBA) for the period in which the EBA applies. For the period subsequent to the expiry of the EBA, we have set forecast labour cost escalation consistent with the advice provided by an expert independent consultant "Independent Economics".
Key assumption 6	The opex year 2012/13 has been adopted as the efficient base year for deriving a forecast of recurrent opex.
Key assumption 7	Ausgrid has engaged with stakeholders in developing its regulatory proposal in accordance with the stakeholder engagement process outlined in the National Electricity Rules.
Key assumption 8	Ausgrid has supplied Transitional Services to EnergyAustralia since the sale of its retail business in 2011. The TSA has a maximum term until 31 December 2015. The required six months notice of termination has yet to be given. A joint transition plan between the parties has a current target end date of 27 November 2014 with post migration support obligations until 28 Feb 2015. In the event of EnergyAustralia being unable to transition due to unforeseen circumstances, the TSA contract has obligations on Ausgrid to continue providing services where Ausgrid has maintained the capability to provide the service. Ausgrid's SRP is based on the assumption that the current joint transition plan time line is achieved.

In the following sections, we identify why we consider the assumption is material to our forecast capex and/ or opex. We also set out why the assumption is reasonable, with reference to the material that comprises our regulatory proposal.

Key assumption 1 – Legal Entity and Ownership

This is a key assumption as it provides clarity that capex and opex have been prepared based on current ownership and legal structure and do not incorporate any impacts associated with a potential change of ownership. We consider that this is a reasonable assumption basis given that there has been no formal announcement by the current owner that a sale of the company will proceed in the 2014-19 period.

Our current structure has also been important in providing strategic input into the objectives that have underscored the development of our capex and opex proposals. For instance, under industry reform there has been a greater focus on customer affordability through efficiency programs introduced across the 3 DNSPs. These have been instrumental in deriving efficiencies that have been incorporated our forecast capex and opex, and which have enabled us to meet our objectives of customer affordability while maintaining safety and reliability of the network. We consider that the level of efficiencies we have achieved are reasonable in our circumstances, as they have been based on a functional review of the costs we incur in providing services.

Further information on our organisational structure under industry reform can be found in Section 1 of the Attachment “Delivering Efficiencies for our Customers”, together with information which demonstrates that the level of efficiencies underpinning the capex and opex forecasts are reasonable in our circumstances.

Key assumption 2 – Amendments to NSW reliability licence conditions

This is a key assumption underpinning our forecasts of capacity and reliability compliance capex. On 13 January 2014 we received a letter from the Minister for Energy and Resources which notified of a variation to the existing Design and Reliability Performance Licence Conditions imposed by the Minister on the under the Electricity Supply Act 1995. The amendment will remove Schedule 1 of those conditions relating to design criteria. The remaining conditions in Schedules 2 and 3 are now termed the Reliability and Performance conditions. The amended licence conditions come into effect from 1 July 2014, and we consider it is reasonable to conclude that they will be in place for the entirety of the 2014-19 regulatory control period.

The amendment to the licence to conditions by the removal of Schedule 1 of means that Ausgrid does not have specified design criteria for when to invest in the security of the network. This has impacted our proposed forecast capex for the 2014-19 period as it has provided opportunities to defer capacity investment where we determine a prudent level of risks could be tolerated.

We have used a high level methodology to identify the cost savings we think will be attributable to the removal of Schedule 1 of the Licence Conditions. The resultant forecast is reasonable given that there are only limited opportunities to prudently reduce capex without deteriorating reliability, and that spot loads rather than organic growth are driving capacity investment.

In the supporting document titled, “Interim Planning Approach”, Ausgrid provides a view of how the amended licence conditions will impact planning standards on the network after 1 July 2014. The approach relies on a simple screening indicator based on value of \$/kVA determined by dividing the indicative cost of the most likely solution by the gap between forecast demand and the licence capacity limit. This is an indicator of the likely cost-benefit ratio of the project under any economic evaluation approach that provides a screening approach for undertaking further examination of projects that can be deferred. The approach was used when developing the forecast of capex for major projects in the Area Plans for the 2014-19 period and has led to the final capex proposed.

The same detailed approach could not be undertaken for capacity on the distribution network, as we have primarily relied on granular modelling to determine the forecast capex. In these cases we have made adjustments to our model to incorporate assumptions that take on more risk in our planning.

We note that Schedule 2 and 3 (which relate to average and individual feeder reliability) are consistent with the licence conditions in place for the 2009-14 period. The proposed capex in our Reliability Compliance plan sets out the required investments to comply with Schedule 2 and 3 of the amended licence conditions. .

Further information on how the changes to licence conditions have impacted our forecast capex is contained in section 5.2 of the regulatory proposal. The letter from the relevant Minister and the amended licence conditions are contained in the Attachment, “Reliability and Performance Licence Conditions for DNSP, Minister for Energy, commencing 1 July 2014” and in supporting document “Interim Planning Approach”.

Key assumption 3 – Strategic management framework including prioritisation

We consider that this is a key assumption as the framework has resulted in a significant reduction to Ausgrid’s forecast capex. A key aspect of our forecasting method was to apply the outcomes of a prioritization process that was centrally coordinated across the 3 NSW DNSPs.

The objective of the process was to identify prudent opportunities to defer or avoid capital expenditure based on an assessment of relative risk such that we could minimize our requirement for investment funding and better meet our goal of customer affordability. The prioritization process was conducted in parallel with Ausgrid's planning processes. The key components of the prioritisation process were:

- At several points in the development of the expenditure plans, Ausgrid identified a full suite of projects and programs that would comprise the proposed expenditure portfolio. This was at a granular level involving between 400 and 500 individual line items.
- Each project or program was assigned a risk ranking, based on a consistent methodology for assessing risk. The consistent application of a single approach by each of the NNSW businesses allowed us to objectively rank projects within each business in a consistent way.
- A process of feedback and iteration refined the plans and risk assessments as the expenditure forecasts were refined with multiple passes through the risk prioritisation tool.
- A board level review of the overall risk profile and the relationship between risk and different scenarios of expenditure identified the prudent level of capital investment which forms the basis of our expenditure forecast.

We consider that the outcome of prioritisation was reasonable, in that it reflected a prudent assessment of risks to achieve our objective of customer affordability. In this respect, the reasonableness can be demonstrated by the method used to rank relative risks of the program. This enabled us to prudently select programs that could be efficiently deferred.

Further information on our strategic framework to incorporate prioritisation of the program can be found in Section 5.3 of our regulatory proposal document, and in section 4 of the attachment "Delivering Efficiencies for our Customers".

Key assumption 4 – Demand and customer connection forecasts

This is a key assumption underpinning our capacity related capex including our Area Plans, 11kV Reinforcement plan, Low Voltage Reinforcement Plan and the Customer Connection Plan. Peak demand forecasts set out the expected increase in peak demand on locations of our network, while customer connections record the increase in the number of residential and non-residential customers on our network.

In respect of the reasonableness of peak demand forecasts, we note that:

- Ausgrid's method relies on historical peak demand recorded at each of its 220 zone areas, and this provides an indication of trends in demand growth at different points in the network. Importantly, Ausgrid's forecast process is capable of excluding spot loads from trend growth, considering new connections in the short term, and weather correcting.
- We have had our forecasting methodology reviewed by an independent demand forecast expert (SKM), which further provides evidence on the reasonableness of our methodology.
- In developing our capex forecasts for the 2014-19 period, we have applied our methodology using most recent available historic data.

Similarly customer connections has relied on historical estimates, and take into account evidence on changes from historical levels due to well accepted drivers of connections such as economic activity and construction data. The data has been provided to reflect that

Further information on our demand forecast methodology and outcomes can be found in Section 5.3 of our regulatory proposal document. The forecasts of load growth by location are contained in the attachment: "Spatial demand forecast by zones and substations". The method used to develop those forecasts of load growth are contained in the supporting documents: "(INV-STD-10022) Planning Standard - Demand Forecast & related documents". We note that the supporting document, "SKM review of Ausgrid's peak demand forecast method" provides an independent external review of Ausgrid's method for developing forecasts of load growth.

Further information on customer connections can be found in Section 5.3 of our regulatory proposal document. The forecasts of customer connections is in the Attachment, "Customer number forecasts model" and the methodology for deriving these forecasts is in the document, "Customer number forecast methodology".

Key assumption 5 – Forecasts of labour escalation

This assumption is material to the forecasts of undertaking capital works and operating activities in the 2014-19 period. Real cost escalation refers to the movement in the price of labour relative to the Consumer Price index. A positive value denotes that the price of labour is expected to increase above CPI. The impact of the value of real cost escalation

enables us to estimate the likely cost of undertaking capital works or an opex activity in the year that the work is undertaken.

In deriving a value of real cost escalation for labour escalation, we have applied our most recent Enterprise Bargaining Agreement (EBA) for the period that it operates. We consider that the EBA is the most reasonable forecast to use as it provides a specific and accurate estimate of Ausgrid's future labour costs, based on strong negotiation between Ausgrid and its staff. We note that the AER has approved the duration of an EBA as a basis for determining real cost escalation when making regulatory determinations, which further demonstrates the reasonableness of this assumption.

For the period after the EBA has expired, Ausgrid has adopted the forecast of labour escalation advised by Independent Economics. To ensure that the changes in labour costs appropriately reflect the skills required and the market factors driving the demand and supply of labour, Independent Economics had provided expected changes in labour costs for the utilities sector. We have used the utilities sector real labour cost increase to forecast the likely labour costs we would need to undertake activities that require engineering and electrical technical skills which are essential in undertaking work on our electrical system and assets. For non-engineering related labour costs, we considered that labour cost changes in the general labour sector best reflect the efficient labour costs in the forthcoming regulatory control period.

We consider that our approach to adopt the values advised by Independent Economics is reasonable for the following reasons:

- Independent Economics is an expert economic firm with the expertise to provide a reliable forecast, taking into account our industry.
- The method used by Independent Economics has been the approach the AER has used in recent regulatory determinations.

Further information on our labour cost escalation is in sections 5.3 and 6.3 of our regulatory proposal document. The advice provided by Independent Economics is contained in the Attachment, "Independent economics - Labour escalation for NSW DNSPs". The inputs used for real cost escalation is in the Attachment, "Cost escalation inputs and model".

Key assumption 6 – Using 2012-13 as opex base year

This assumption is only relevant to our proposed forecast opex. The bulk of Ausgrid's forecast opex is derived using the base year approach under which the actual operating expenditure of the regulatory year 2012-13 is used as the opening starting point upon which 'change factors' are applied to derive the future opex requirements for the 2014-19 period.

The base year method is commonly used by the DNSPs and is the AER's preferred method to derive estimates of forecast opex. It is a reasonable method as the majority of our costs are largely recurrent. The 2012-13 base year is the last year of actual capex and is therefore the most current estimate of providing standard control services that are of a recurring nature. This current actual cost is then adjusted to account for future changes in Ausgrid's circumstances, operating environment, regulatory obligations and changes in demand and cost inputs in arriving at a forecast opex. This is to ensure that all known factors affecting Ausgrid's future opex requirements are appropriately accounted for.

We note that the manner in which we have used 2012-13 data as a basis for forecasting is also fit for purpose and reasonable in our circumstances. This includes:

- Adopting alternative methods than the base year approach to forecast certain categories of opex. For instance, we have not applied a base year approach to forecast non-network alternatives as this is not likely to reflect a recurrent cost. In other cases, we have used a variant of the base year, for instance longer term average costs for breakdown opex as the nature of this cost item is variable from year to year, and a longer term average would likely derive a more reasonable basis for forecast opex.
- Removing non-recurrent end of year adjustments - Our base year opex also contains year-end adjustments to reflect actuarial gains and loss in the assessments of our employee entitlements obligations. Actuarial gains and loss are changes in the present value of these obligations. These gains and loss resulted from adjustments made to reflect the differences between the previous actuarial assumptions and what had actually occurred as well as the effect of changes in actuarial assumptions. These adjustments are included in our actual opex for 2012-13 as required by Accounting Standards; however, they have been excluded from the base opex to ensure that the base opex amount, upon which cost escalation and change factors are applied, reflects the underlying ongoing opex needed to undertake the required activities to provide standard control services. This approach is consistent with that used to forecast our current period opex allowance approved by the AER.

Further information on why our approach to deriving forecast opex, including the manner in which we have applied 2012-13 data can be found in section 6.3 of our regulatory proposal document.

Key assumption 7 – Engaging with customers

Our engagement activities have influenced the development of our opex and capex proposals. The findings of our customer engagement activities support the key objectives of our regulatory proposal and resultant expenditure forecasts, and demonstrate that our proposals are reasonable in the context of giving effect to the views of our customers:

- Reliability – Customers were generally satisfied with the reliability of their service, in fact, many felt it had improved over recent years. There was little willingness to pay more for a higher level of reliability. Our proposal has sought to maintain the reliability performance standards of our licence conditions, and has not sought funding for additional reliability.
- Affordability – This is a significant number of our customers had seen increases in their electricity bills over the past few years. Customers understood the need to spend money to maintain the electricity network. However, there was a clear preference that if prices needed to increase, they should do so in a steady manner over a number of years rather than a one-off “bill shock”. Our capex proposal has sought all available opportunities to prudently defer expenditure and incorporate efficiencies. Our opex program ensures our opex profile remains relatively flat over the 2014-19 period which will provide a solid platform for ensuring price stability for the 2019-2024 period.. Further information on how the program has taken into account price pressures of the proposal can be found in Section 5.2 of our regulatory proposal.
- Safety – Customers expected that electricity was supplied in a safe manner and believed that this should be taken into account when constructing and operating the network. In this respect, our replacement program continues to remove assets that deteriorate the safety of services we currently provide and our maintenance opex program is aimed at ensuring the network is safe.

Chapter 2 of our regulatory proposal provides further information on our customer engagement activities. The attachments “Ausgrid’s customer engagement strategy” and “Customer engagement survey” show the activities we undertook in engaging customers on a range of issues including reliability, price, construction and design standards, metering technology, demand management and energy efficiency, support for vulnerable households, and communication and engagement. The attachments also show the findings of our customers in these areas.

Key assumption 8 – TSA expiry

The cessation of the Transitional Services Agreement (TSA) between Ausgrid and Energy Australia has been a key assumption in deriving our forecast opex in the 2014-19 regulatory control period.

In terms of background, we note that prior to 1 March 2011, Ausgrid (formerly known as EnergyAustralia) was an integrated business that provided both network services (as a DNSP) and retail services. Ausgrid provided these services using integrated IT systems and business processes whilst maintaining ring fencing arrangements. EnergyAustralia’s retail business was sold to TRUenergy on 1 March 2011. This sale involved the sale of the EnergyAustralia’s brand, EnergyAustralia’s retail customers and wholesale contracts to TRUenergy (now EnergyAustralia). Under the terms of the sale, a transitional services agreement (TSA) was agreed between Ausgrid and TRUenergy.

The TSA stipulates the provision of retail related services to TRUenergy’s retail customers (i.e. previously EnergyAustralia’s customers) on behalf of TRUenergy by Ausgrid. Ausgrid provides these services to TRUenergy’s customers using the same resources, systems and process that it employed to provide services to its own retail customers prior to the sale to TRUenergy. That is, there has been no substantial change to the way Ausgrid operates in providing retail related services to TRUenergy as opposed to its own retail customers prior to the sale.

These services are scheduled to end on a specified date unless TRUenergy chooses to terminate them early in accordance with the agreed conditions. At present, unless extended by TRUenergy, Ausgrid anticipates that these services will end in November 2014, with an additional period of a few months to cater for any further transition issues.

Upon termination of the TSA, Ausgrid’s operational and fixed support cost of providing standard control services will increase due to the loss of scale and scope of being an integrated retail/network business. The cessation of the TSA has direct impact on operational areas of data operations and contact centre as well as support areas such as IT and property.

We therefore consider that is reasonable to include these ‘loss of synergy’ costs into the forecast opex for the 2014-19 period. The AER recognised this potential ‘loss of synergy’ in its distribution determination for Ausgrid for the 2009-14 period. In accepting the ‘Retail project event’ (i.e. sale of the retail business) as a nominated pass through event, the AER stated:

If the NSW electricity retail businesses are privatised the DNSP’s cost of providing direct control services may increase due to loss of synergies¹.

Mindful of the impact of these increases on our customers, Ausgrid intends to implement strategies to ensure that the impact on customers resulting from these costs increases is reduced to nil over the 2014-19 period. Our forecast opex includes the costs of implementing these strategies as well as the savings expected to result from these strategies.

Further information on the impact of the TSA expiry can be found in Section 6.3 of our regulatory proposal document.

¹ AER, EnergyAustralia, draft distribution determination, 2009/10 to 2013/14, 21 November 2008, p280.