Evoenergy - Key assumptions underlying operating and capital expenditure forecasts

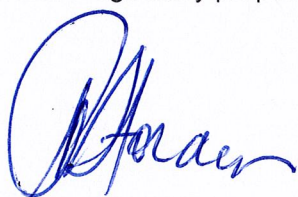| Issue	Key assumption
NER S6.1.2(5) – Key assumptions that underlie the operating expenditure forecast	
Base year forecasting approach	We have assumed 2017/18 represents a year of efficient recurrent expenditure to be used as the starting point for the 2019-24 opex forecast.
Output growth	Our opex forecast assumes average annual output growth of 1.3 per cent based on our forecast of key growth drivers of customer numbers, circuit length and ratcheted maximum demand and weights applied to each of these drivers using outputs from cost function modelling.
Productivity growth	Our opex forecast assumes zero productivity growth. The AER's most recent benchmarking report shows negative productivity growth over the analysis period, but with a turnaround in recent years. Given the period of significant opex reductions across much of the industry which is unlikely to continue at the same rate, we consider a productivity growth rate of zero to be a reasonable assumption for the 2019-24 regulatory period.
Step change	We have included a step change due to increased costs related to new regulated responsibilities for urban tree clearing.
Cost escalators	Evoenergy's expenditure forecasts have been escalated throughout the regulatory period in line with independently verified material and cost escalators. Escalators have been applied for labour costs. Real cost escalation indices for certain material and labour cost drivers were calculated by BIS Oxford Economics. For opex, we assume an average annual real labour price growth of 1.2 per cent and have applied this to the AER's benchmark labour/non-labour weights.
NER S6.1.1(4) – Key assumptions that underlie the capital expenditure forecast	
The weighting of project components underlying capital expenditure forecasts	The material and labour cost escalators have been applied to various asset classes for forecast capital expenditure for the 2019-24 period, using weightings that have been independently verified by GHD to determine the impact that cost escalators have on the overall price of specific assets.
Capital contribution forecasts based on historical trends	Forecast capital contributions are based on Evoenergy's Connection policy (approved by the Australian Energy Regulator) for each category of customer initiated capital expenditure.
Demand forecasts have been used to develop augmentation related capital expenditure forecasts	Ten-year forecasts of maximum summer and winter load demands at all zone substations have been developed. Evoenergy's zone substation forecasts use multiple-linear regression to model the historical trend of demand growth, and to forecast future peak demand. Two separate forecast scenarios are produced, for summer and winter peak demands.

Issue	Key assumption
Repex forecasting approach	Application of bottom-up and top-down approach, with the exception of Secondary systems which is bottom-up only.
	Bottom-up approach is conducted under RIVA DSS using inputs from current internal costs (benchmarked with historical costs), asset attributes database, and selected asset replacement strategy (typically condition based monitoring strategy is chosen). The top-down approach uses a risk expenditure model developed by Cutler Merz, with risk based parameters estimated from historical statistical studies.
	Secondary systems is excluded from the top-down analysis due to numerous asset classes with relatively small expenditure, leading to difficulty in optimising the asset portfolio.
Augex forecasting approach	Application of bottom-up and top-down approach. Both approaches utilise inputs/assumptions from demand forecasts and projections of non-network uptake derived from Jacobs SKM review. Bottom up uses Riva DSS and load flow models. Top-down approach uses a similar risk expenditure and NPV project evaluation model also developed by Cutler Merz, with additional deferral and modularity value assumptions developed from empirical studies.
Connections forecasting approach	Historical averages and time series regression modelling. Certain inputs such as dwelling predictions are produced by BIS Shrapnel forecasts.
Non-Network forecasting approach	ICT expenditure based on the approved Corporate Services and ICT strategy.
	AIS expenditure identified utilising a bottom-up approach, and verified through a top-down risk based review (separate from augex/repex top down review).

Australian Energy Regulator

TO WHOM IT MAY CONCERN

Certification of the reasonableness of the key assumptions by the directors

I confirm that the ActewAGL Partnerships Board, after receiving relevant assurances from management, has passed a unanimous circulating resolution to certify the reasonableness of the key assumptions that support the opex and capex forecasts in the Evoenergy ACT electricity network regulatory proposal for the 2019-2024 regulatory period.

Peter Holden
Group Secretary

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