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## Supporting document 5.13 BIS Oxford Economics -Response to EMCa Report

**2020-25 Revised Regulatory Proposal** 10 December 2019

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# RESPONSE TO EMCA REPORT FOR AER: CONNECTIONS CAPEX COMMENTS

REPORT PRODUCED FOR SA POWER NETWORKS

**NOVEMBER 2019** 



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#### November 2019

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### SUMMARY

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This report has been prepared by BIS Oxford Economics (BISOE) for SA Power Networks (SAPN), in response to the issues raised in the report prepared by Energy Market Consulting associates (EMCa) – "*Review of aspects of SA Power Network's capital expenditure*" (Final, September 2019) for the Australia Energy Regulator's (AER). This report will focus on section 7 of the EMCa report, 'Proposed connections capex'.

EMCa has criticised aspects of the connections capex forecasting process in section 7.4. Most of these criticisms have been addressed in the meetings with the AER in May 2019 (when staff from SAPN met with the AER) and in early September 2019, when both staff from SAPN and BISOE met with the AER at their office in Melbourne. The criticisms have also been fully and extensively addressed in the BISOE report *Gross Customer Connections Expenditure Forecasts to 2025/26*, prepared for SA Power Networks in November 2019 (hitherto referred to as the 'BISOE report'). The following addresses each of the criticisms/issues relevant to BISOE with reference to ECMa's report.

- In section 7.4.3 of the EMCa report, paragraph 371, states it "is unclear how the bottom-up forecast contributed to the forecast for the Major Customer Connections capex.". Section 3.1.3 (pages 15 to 17) and section 3.4.1 of the BISOE report explain in detail that we rely on the 'bottom-up' forecast for 99.0% to 99.5% of the Major Customer Connections Expenditure (CCE) forecast in years 1 and 2 (i.e. 2019/20 and 2020/21). The bottom-up forecast in turn relies on the summation of detailed estimates from each nominated project in the extensive 'Major Projects List', as per section 3.4.2. Thereafter, we largely rely on the top-down model for the years 3 to 7 (2021/22 to 2025/26), although this is supplemented with information from the Major Projects List.
- Par 370 of EMCa report claims that "SAPN has not provided individual forecasts (with supporting evidence) for each Connections category that reconcile with SAPN's total forecast for Connections capex". The Executive Summary and section 3.1 detail the forecasts for each of the categories – minor, URD, medium and major – with the sum of these adding to the total; specifically see Tables 1.1 and 3.1, so they fully reconcile.
- 3. Similar to par 371 (in point 1 above), par 376 of the EMCa report states that "it is not evident how the bottom-up forecast of Major Customer Connections capex has been used to support and verify the outcomes from the economic model…" and that "…the value of the bottom-up forecasts do not appear to have any impact on the output from BISOE's top-down economic model…". See point 1 for an explanation and the BISOE report references. A key point here is that in the first two years (2019/20 and 2020/21) when we are substantially relying on the bottom-up analysis, the ratio of Major CCE-to-drivers (13.8) is very close to the historical average (13.7) which we would have applied if we were just using the top-down model. Therefore, the outcomes of using the bottom-up or top-down approach are close and, in effect, validate each other.



- 4. In section 7.5.1, pars 378 to 384, the EMCa report points out 'material discrepancies' in the data with regard to RIN, RP and the data in BISOE's earlier report from November 2018. Our understanding is that these discrepancies have been largely addressed by using the RIN data, which is the basis for the Customer Connections capex data reported in BISOE's latest report of November 2019. The issue of using a mixing \$2018 and \$2020 (par 384) has also been addressed.
- 5. In section 7.5.2 EMCa discusses their analysis of Major Customer Connections capex. In par 390, they state that they "do not observe any relationship between 'Engineering Construction Work' and Major Customer Connections capex." Furthermore, in par 391, EMCa also claim that "...it appears that BISOE has used the 'Non-residential Commencements' forecast as the key (and possibly) only driver of Major Customer Connections capex." We are not sure whether EMCa had access to our (BISOE's) previous report from November 2018, but that report clearly stated that both non-residential building commencements above \$20m (i.e. individual projects above \$20m in value) and engineering construction work done (excluding certain categories) are drivers of major CCE. In section 3.4.2 of the 2018 report, the Major Projects List also detailed engineering construction projects that were included in the Major CCE. Our understanding is that this list was also provided in the form of an excel spreadsheet. We would therefore argue that there was clear evidence and discussion that engineering construction *does* have a relationship with Major CCE. In any case, this relationship is again clearly enunciated in BISOE's recent November 2019 report in sections 3.1.3 and 3.4, with the relevant engineering projects again shown in the Major Projects List in section 3.4.2. In the bottom-up analysis of the Major Projects List, we found that around half of the value of the projects identified in 2017/18 and 2018/19 were attributable to engineering construction projects. Accordingly, our model gives equal weighting to the non-residential building commencements above \$20m and to the selected engineering construction projects. As the total value of the selected engineering construction categories were around 3 times the value of the non-residential building commencements above \$20m over these two years, we included around a third in the sum of the drivers which underpinned the model for major CCE.
- 6. In par 391 EMCa claims that "BISOE did not demonstrate its basis for forecasting 'Non-Residential Commencements' to remain at approximately current levels throughout the next RCP rather than revert to the historical average of the current RCP", while in par 392 EMCa stated that "other data sources also appear that 'Non-residential Commencements' may not remain at current levels" and that "...Non-Residential Building Approvals peaked in 2017/18 and declined significantly in 2018/19,...We did not observe this this decline in BISOE's analysis". Firstly, with respect to the last point in par 392, a significant 29% decline in non-residential commencements (above \$20m) was shown for 2018/19 in table 3.5 and figures 3.5 and 3.6 of the November 2018 report. So EMCa is clearly wrong with their 'observation'. Secondly, non-residential building approvals in the current year are no basis on which to forecast commencements in the next 2 to 7 years. Building commencements (and approvals) forecasts beyond the near-term need to be undertaken on the basis of a thorough analysis of demand and supply fundamentals, which BISOE has a long history of

doing, supplemented by information gathered about future individual projects from various industry data bases and government announcements. This type of demand-supply analysis and supplementary information formed the basis of the forecasts on which BISOE's nonresidential forecasts were done for last years' November 2018 report and indeed again for the recent November 2019 report.

- 7. Following on from EMCa's incorrect observations and statements in pars 391 and 392, par 393 stated "in the absence of compelling justification for BISOE's 'Non-residential Commencements' forecast, we are not convinced that Major Customer Connections will remain at around current (2018/19) levels throughout the next RCP when the current high value publicly funded projects conclude." Firstly, ample evidence of a range of new projects was provided in the Major Projects List (section 3.4.2) in the BISOE 2018 report. So there was certainly 'compelling' justification' for at least the next 2-3 years. However, we accept that some more details of the nonresidential building (and engineering construction) forecasts could have been provided. Accordingly, in the latest November 2019 report, we have provided some details of BISOE's non-residential building and engineering construction forecasts. Figures 3.12 to 3.18 show BISOE's forecasts by sector and category, with these forecasts based on an extensive supplydemand analysis and supplementary information. Much of the 'supplementary information on individual projects and government announcements is also provided in the Major Projects List in section 3.4.2.
- 8. In par 402 EMCa offers an opinion that "SAPN's proposed capex for Major Customer Connections is likely to be overstated ... " and "... its estimated 2018/19 expenditure ... represents a high-point". EMCa offers little explanation to back up this opinion. Furthermore, it claims "Other evidence suggests that a reasonable scenario is for major connections expenditure to decline from the current high-point over the middle and later years of the next RCP". In par 403, EMCa's conclusion/implication is to "consider that SPN's connections capex forecasts in its RP is overstated and is not a reasonable forecast of its efficient and prudent connections expenditure requirements. We [EMCa] consider that a level of forecast expenditure similar to SAPN's forecast expenditure for the current [RCP] period is more likely to reflect the level that SAPN will actually incur." We at BISOE disagree. Firstly, EMCa does not detail the 'Other evidence'. Secondly, much of its dialogue suggests that the level of major connections expenditure should return to the FY2016-18 levels, without a well-reasoned argument as to why this should occur. Our view, as discussed in BISOE's latest November 2019 report, is that the very low 2016-18 levels were an aberration. As section 3.4.1 argues and figure 3.11 clearly shows, the ratio of major CCE-to-the-drivers in those years were exceedingly low. While some of the reason for these low outcomes was a lack of public sector projects in the 2016-18 period, a key reason for the overall volatility of major CCE is that the range of projects requiring major connections (i.e. above \$100,000) is that these projects are not homogenous. There has been a wide variation in the value of major CCE and a particularly wide variation in the relevant ratio of major CCE-to-drivers. Using a ratio for the forecast period which is close to the historical average - rather than using the very low ratios of FY2016-18 or even the high ratios of FY2009-10 - is a far more prudent approach. Furthermore, it is necessary to understand



that the South Australian economy is growing, it's population is rising and that the total level of construction activity – which are the key drivers of overall (and individual categories of) customer connections expenditure – will also increase over the forecast horizon to 2025/26 (chart 1.2 in the November 2019 BISOE report shows overall construction activity). Overall, the average levels of construction activity, population and the state economy will be larger over the 2020 to 2025 period than the average levels of the past 5 years. It is therefore logical that overall customer connections capex (including major CCE) will also be larger, rather than reverting to a previous lower period.







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