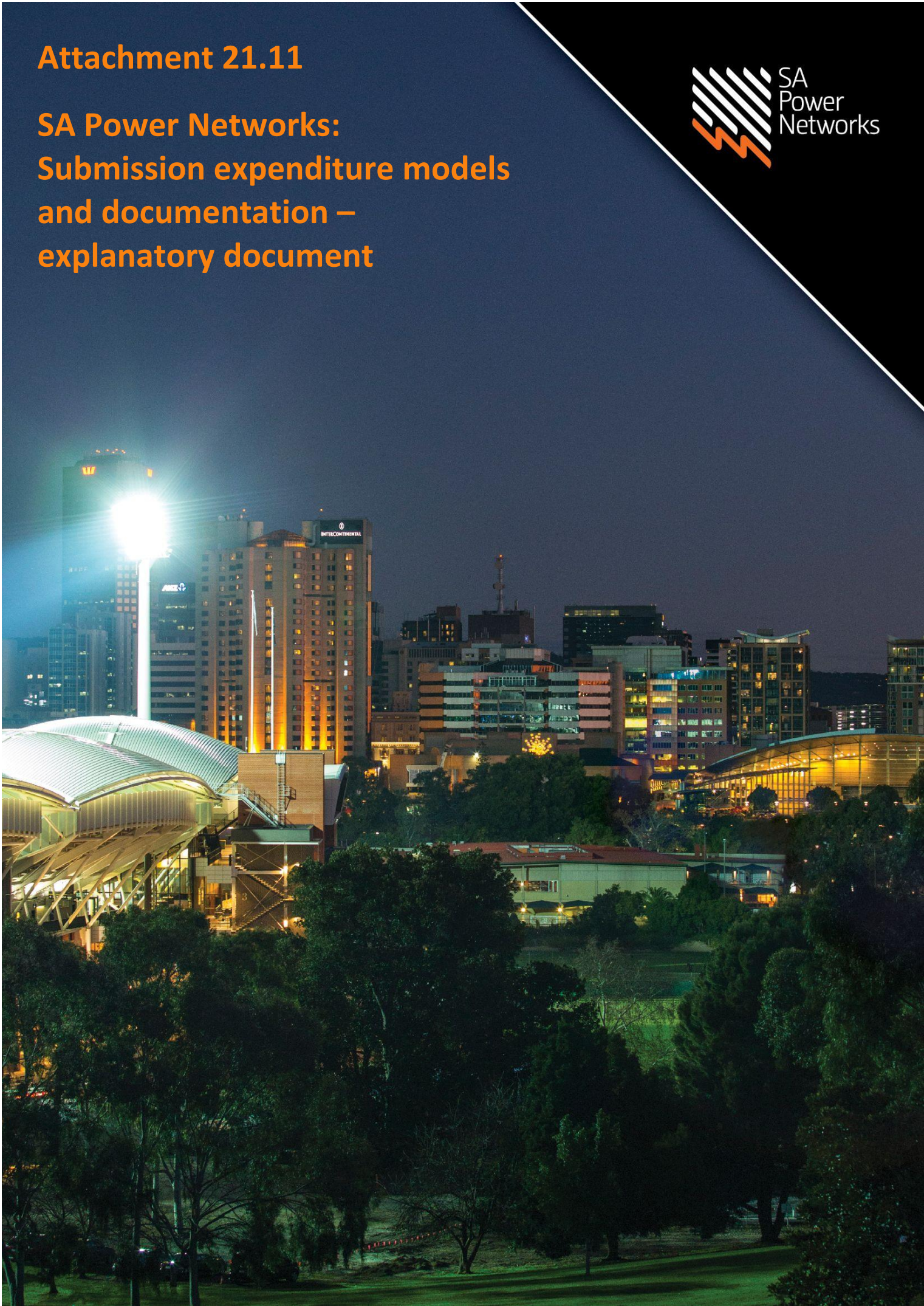


Attachment 21.11

SA Power Networks: Submission expenditure models and documentation – explanatory document



Attachment 21.11 Submission expenditure models – explanatory document

1. Context

In forecasting the capital and operating expenditure that will be required to meet the objectives described within the National Electricity Rules for the 2015 – 2020 regulatory control period, SA Power Networks has developed detailed financial models – provided as Attachments 21.11 to this Proposal – for capital and operating expenditure.

This document describes the contents and structure of these models.

2. SA Power Networks' capital expenditure model

SA Power Networks' Capital expenditure model, also known as the 'Capital Submission Expenditure Model' (or Capex SEM), combines various inputs to produce its key output – being SA Power Networks' proposed capital expenditure for the 2015 – 2020 regulatory control period. Inputs into the Capex SEM include:

- Bottom-up forecasts of capital expenditure;
- Actual & forecast CPI indices; and
- Forecasts of input cost escalators.

SA Power Networks' bottom-up forecasts of capital expenditure have been derived from detailed Asset Management Plans (AMPs). Figure 1 represents the relationship between these AMPs and the inputs into the Capex SEM diagrammatically.

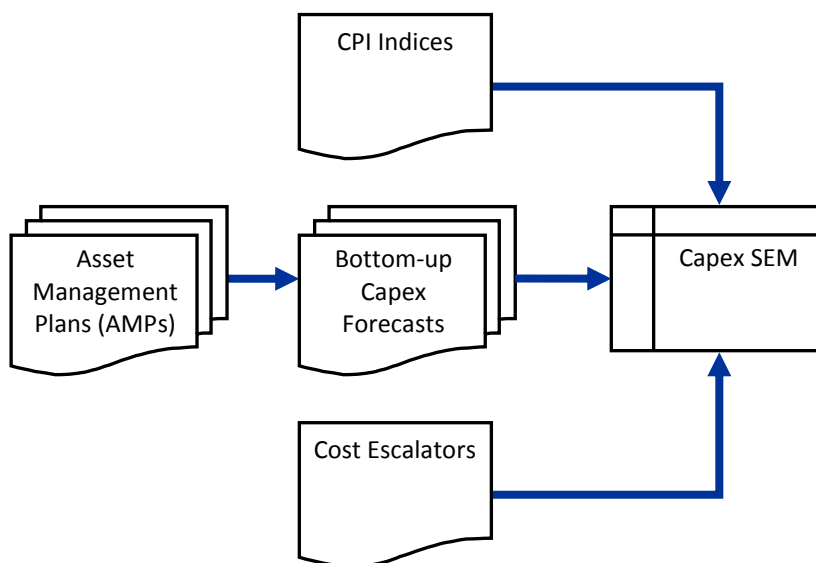


Figure 1: Inputs into the Capex SEM

The Capex SEM is structured as a series of worksheets within a Microsoft Excel workbook. Table 1 provides a brief description of the contents of the key worksheets within the Capex SEM.

Table 1: Key contents of the Capex SEM

Worksheet label	Description
I-1	CPI indices used in the Capex SEM.
I-5 Future	Used to input SA Power Networks' bottom-up capital expenditure forecasts (excluding escalation effects) where applicable ¹ .
I-6	Input cost escalators used in the Capex SEM, as detailed in other Attachments to this Proposal.
C-1:C-31	Detailed worksheets showing, for each category of capital expenditure: <ul style="list-style-type: none"> • Whether the expenditure forecast has been constructed using a zero-based forecast or a baseline + variations approach; • The baseline expenditure forecast; • Any variations, or changes in scope, applicable to the expenditure forecast; • Specific escalation effects (escalation in expenditure attributable to changes in the scale of SA Power Networks' operations); and • General escalation effects (escalation in expenditure attributable to input cost escalation, or CPI indices). • Categorisation of expenditure into asset categories.
E2	Summary reports of capex by asset category, by purpose and by cost category

3. SA Power Networks' operating expenditure model

SA Power Networks' Operating expenditure model, also known as the 'Operating Submission Expenditure Model' (or Opex SEM), is very similar to the Capex SEM – the key differences being that the Opex SEM:

- Relies on bottom-up expenditure forecasts to a lesser extent, with forecast operating expenditure for 2013/14 generally adopted as the baseline operating expenditure for future years; and that it
- Incorporates scale as well as input cost escalators, which facilitate escalation of SA Power Networks' operating expenditure for changes in the scale of its operations. These escalators are discussed in detail SA Power Networks' Proposal.

The Opex SEM, like the Capex SEM, is structured as a series of worksheets within a Microsoft Excel workbook. Table 2 provides a brief description of the contents of the key worksheets within the Opex SEM.

The structure of the Opex SEM is identical to that of the Capex SEM as illustrated in Figure 1, with the exception of the Asset Management Plan input, which is not relevant.

¹ Where a baseline + variations approach is taken, the 2013/14 expenditure is carried forward throughout the period on this sheet.

Table 2: Contents of the Opex SEM

Worksheet label	Description
I-1	CPI indices used in the Opex SEM.
I-5 Future DA	Used to input SA Power Networks' baseline operating expenditure for Directly Allocated (DA) services. For operating expenditure, this forecast is generally set equal to the operating expenditure forecast for 2013/14 throughout the period. The forecast in this worksheet excludes escalation effects.
I-6 Future A	Identical to the worksheet labelled 'I-5 Future DA', with the exception that it provides the forecast baseline operating expenditure for Allocated (A) services.
I-7 Escalations	Input cost escalators used in the Capex SEM, and Scale cost escalators, as detailed in this Proposal.
A-1:A-41, DA-1: DA-24	Detailed worksheets showing, for each category of operating expenditure: <ul style="list-style-type: none"> • Whether the expenditure forecast has been constructed using a zero-based forecast or a baseline + variations approach; • The baseline expenditure forecast; • any variations, or changes in scope, applicable to the expenditure forecast; • Specific escalation effects (escalation in expenditure attributable to changes in the scale of SA Power Networks' operations); and • General escalation effects (escalation in expenditure attributable to input cost escalation, or CPI indices).
E2	Summary Opex report.

4. Mapping from the expenditure models to AER pro-forma categories

The E2 sheets in the expenditure models indicate the mapping from SA Power Networks' expenditure categories utilised in the forecast build-up², to those categories required in the AER's RIN's.

² Relating to sheets C-1 to C-31, A-1:A-41 and DA-1: DA-24 in the models.