



TransGrid

Project EnergyConnect | Modelling updates

30 April 2021

This page is intentionally left blank.

Contents

- 1. Modelling updates 1
 - 1.1 PEC Capex Forecast Model 1
 - 1.2 PTRM.....2
- Appendix E – Glossary4

1. Modelling updates

We have updated our PEC Capex Forecast Model to reflect our revised capex forecast (see Attachment A.8 of our Revised Capex Application for PEC) and reflected this in an updated version of the Post-tax Revenue Model (PTRM) for the 2018–23 period (see Attachment A.9). This document describes the changes made to these models.

1.1 PEC Capex Forecast Model

The PEC Capex Forecast Model was updated to reflect the changes described in Chapters 5, 6 and 7 of our Revised Capex Application for PEC. The specific changes made are described in Table 1 below.

Table 1 – Changes made to the PEC Capex Forecast Model

Expenditure change	Cell references	Description of modelling changes
Update line deviations	'Inputs' sheet, cell O49, rows 62:75, and row 162 (and consequential changes to the tables in the 'Outputs' sheet)	We replaced the \$32.6 million (\$Nominal) of line deviations included with the tendered works costs in our Initial Capex Forecast with an updated estimate of \$29.2 million (\$Nominal) that reflects the actual and estimated line deviation costs and the probability of them occurring for various sections of the PEC line length. The inputs were sourced from the Contractor and WSP, and calculations that we input. The potential avoided easement costs (included in rows 73:75) are adjusted for at row 162 within the property and easements costs build up.
Added contract deed costs	'Inputs' sheet, rows 79:85 and cells M124:M128 (and consequential changes to the tables in the 'Outputs' sheet)	We added capacity to input deed costs. Although we paid contract deed costs to the Contractor in the 2020-21 year to extend the Commitment Deed across the tendered works costs, we are not including these in our Revised Capex Forecast and so have input zero at cell M85.
Updated other construction costs	'Inputs' sheet, cells L95, L97:L98 (and consequential changes to the tables in the 'Outputs' sheet)	We updated three other construction costs: <ul style="list-style-type: none"> > planning and approval delay costs were reduced to \$9.6 million (\$Nominal) by adjusting for a 75% likelihood of occurrence > COVID-19 costs were reduced to \$6.3 million (\$Nominal) by adjusting for a 75% likelihood of occurrence > extreme weather costs were reduced to \$1.3 million (\$Nominal), reflecting a 8/9 reduction from a 9 in 100 year likelihood to a 1 in 100 year likelihood <p>The Real 2017-18 equivalent values are discussed in Section 4.3 of our Revised Capex Application.</p>

Expenditure change	Cell references	Description of modelling changes
Commercial negotiating costs	'Inputs' sheet cells G156	We updated the commercial negotiating costs to \$20.0 million (Real 2019-20). This is equivalent to the \$19.8 million (Real 2017-18) described in Section 6.3.
Updated environmental offset costs	'Inputs' sheet, cells G172:G173	<p>Based on updated advice from WSP, we updated the environmental offset costs:</p> <ul style="list-style-type: none"> > biodiversity offset costs were increased to \$127.8 million (Real 2019-20) > species offset costs were increased to \$22.2 million (Real 2019-20) <p>The Real 2017-18 equivalent values are discussed in Section 5.4 of our Revised Capex Application.</p>
Updated risk costs	'Inputs' sheet, cells A295:A296, K195:K297 (and consequential changes to the tables in the 'Outputs' sheet)	<p>The environmental offset risk cost was updated to:</p> <ul style="list-style-type: none"> > reduce the base case value to \$96.3 million (Real 2019-20) > reduce the high case value to \$189.9 million (Real 2019-20), reflecting the risk associated with securing credits without any BSAs > reduce the likelihood of the high case occurring to 20%. <p>The Real 2017-18 equivalent values are discussed in Section 7.3 of our Revised Capex Application.</p> <p>If the CESS does not apply to environmental offset costs, then we set the value at cell K299 to zero.</p>

1.2 PTRM

We have updated the PTRM included with our initial capex forecast to reflect our revised capex forecast and to incorporate updates made by the AER in its Preliminary Position and for the actual cost of debt for the 2021-22 year.

The specific changes made to that PTRM are described in Table 2. Although we have not adjusted for any cross-period smoothing of allowed revenue, we intend to engage with the AER further on this.

Table 2 – Changes made to the PTRM for the 2018–23 period

Input change	Cell references	Description of modelling changes
PEC capex forecast	'PTRM input' sheet, cells AA82:AE92	<p>We updated the as incurred PEC capex forecast input to the PTRM to reflect that output from the updated PEC Capex Forecast Model.</p> <p>As a consequence of updating the as incurred forecast, the PTRM automatically updated the as commissioned forecast (at cells AA244:AE254 of the 'PTRM inputs' sheet).</p>

Input change	Cell references	Description of modelling changes
Modelling updates included in the AER's Preliminary Position	'PTRM input' sheet, cells P38, V360, and F449:K449	<p>The AER's Preliminary position included updates to:</p> <ul style="list-style-type: none"> > reduce the tax standard life for synchronous condensers 30 years (cell P38) > remove land and easements from the weighted average standard life calculation used to determine the standard life for equity raising costs (cell V360) > replace the energy delivered forecast for 2017-18 to 2022-23 with an AEMO forecast and actuals (cells F449:K449). <p>We incorporated these changes into the updated PTRM.</p>
2021-22 cost of debt update	<p>'PTRM input' sheet, cell J430</p> <p>'X factors' sheet, cell J47</p>	<p>In January 2021, the AER provided us with the actual cost of debt value for the 2021-22 year (4.96%) and the corresponding X-factor for that year (-1.32%).</p> <p>We incorporated these values into the updated PTRM (i.e. cells J430 and J47 respectively).</p>
Resolving 2022-23 X factor	'X factors' sheet, cell K47	<p>After making the other changes to the PTRM noted above, we resolved the X factor for the 2022-23 year so that the NPV of smoothed and unsmoothed revenue over the 2018–23 period was the same.</p> <p>Consequently, this update to the X-factor also slightly reduced the estimated equity raising costs from the \$16.1 million (Real 2017-18) included in our initial capex forecast to the \$16.0 million (Real 2017-18) in our Revised Capex Forecast if the CESS applies to environmental offset costs and \$15.8 million (Real 2017-18) if not.</p>

Appendix E – Glossary

Abbreviations/acronyms	Definition
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Application	Contingent Project Application
BAFO	Best and Final Offer
BCD	Biodiversity and Conservation Division
BDAR	Biodiversity Development Assessment Report
BSA	Biodiversity Stewardship Agreement
EIS	Environmental Impact Statement
DPIE	Department of Planning, Industry and Environment
Capex	Capital expenditure
CPA	Contingent Project Application
IBRA	Interim Biogeographic Regionalisation for Australia
M	Millions
NER (Rules)	National Electricity Rules
NSW	New South Wales
Opex	Operating expenditure
QNI	Queensland-New South Wales interconnector