Variation to AoG Consultancy Services Order 18-19C05 – Variation C

Part D – Variation to AoG Consultancy Services Order

The Authority will complete Part D if it wishes to change any details of the original Consultancy Services Order

Details of Variation

In order to pay the Provider for additional Consultancy Services it performed during Step 3 of the CBA coorequire the Provider to perform additional Consultancy Services for Steps 4 and 5 of the CBA, the Authority would like to amend the Consultancy Services Order as follows:

1.1 insert after the table following clause 2.8) of the CSO:

"2.9) Step 3 scope extension

The Authority and the Provider extend the scope of services provided and a Step 3 to provide for the 139.5 hours of additional Consultancy Services the Provider performed in delivering the additional items to include:

- (a) Correcting an error in price data received from the Authority.
- (b) Preparing for, and attending, meetings with Transpo ver to obtain transmission cost data.
- (c) Re-running and rewriting a parameter for recicual allocation percentage.
- (d) Analysing whether a lagged AMD charge can be considered to have a fixed-like effect.
- (e) Assisting with the April Board meeting policy assessment, ie, HVDC in and out of benefit-based charge.
- (f) Analysing 'gross' vs 'net' al'or ation of transmission charges, for the Authority's policy analysis.
- (g) Obtaining additional node information requested by the Authority Board in December 2018 and managing the complexity of additional nodes in the model.
- (h) After Authority approval of the Step 2 report, responding to Authority queries and feedback, and revising the Step 2 report beyond the Step 2 timeframe.
- (i) Action: from the Authority Board's request for additional transmission nodes.
- (j) Assisting Authority staff to clarify the policy intent of the proposed Code amendment relating to amending the TPM without a material change in circumstances.

5'e . 4 – CBA finalisation for release

- 2.10) The Provider will provide additional support to the Authority to finalise the CBA from the period after the CBA results were presented to the Authority Board on 4 April to release of the CBA as part of the 2019 issues paper for the TPM review for consultation, including:
 - (a) Following the April Authority Board meeting, re-running and re-writing the main CBA model, with some existing assets excluded from Area of Benefit (AoB) charges (eg, Otahuhu GIS)
 - (b) Battery modelling including analysing cost, state of charge, implementing in the model, and rewriting
 - (c) Top-down modelling of investment efficiency benefits

- (d) Modelling of slight variations or more sensitivities on request
- (e) Revising CBA modelling following Authority feedback on details of the methodology and updates to minor policy changes.
- 2.11) The Provider will provide information and respond to queries to support the Authority to check the draft CBA, including:
 - (a) Updating and extending technical documents
 - (b) Collating and explaining workings of input data sets
 - (c) Responding to checkers' queries about Python code, including the main model, assessment of prudent discount policy (PDP) costs and benefits, estimated TPM costs, including ACOT, and update CBA
 - (d) Reviewing the Authority's CBA report to critique for correct use of numbers and description of method.
- 2.12) The Provider will complete preparing for release of the technical documents and support the Authority to understand and check the Python code by:
 - (a) Updating and finalising the working draft of the CBA report prepared by SEC/Sense Partners
 - (b) Supporting the Authority to document assumptions for a published CBA assumptions appendix
 - (c) Supporting the Authority to tidy the presentation of the Python code including checking the tidy code produces the same results
 - (d) Preparing a large schematic flow chart of how the central scenario in appendix A works and links to appendix F
 - (e) Providing the Authority with a complete list of technical files and the files themselves ready for publication on and.
- 2.13) The Provider will support the Authority to complete the preparation of the CBA report by:
 - (a) Preparing chartener sensitivities on the CBA order of magnitude
 - (b) Attending up to two Authority Board meetings in June 2019
 - (c) Providing information from the CBA modelling to flesh out examples in other parts of the 2019 issues paper, eg:
 - (i) seographical differences in grid congestion / spare capacity
 - i) scale of possible avoided charges from batteries that are shifted onto others
 - (iii) scale of problem around grid use
 - (iv) numbers on undergrounding
 - (v) numbers on Otahuhu
 - (d) Assisting with preparation of communications messages relating to the CBA.

Step 5 – CBA support during consultation

- 2.14) The Provider will support the Authority during the TPM consultation period and cross-submissions period on its 2019 issues paper by:
 - (a) Preparing for and presenting at up to four workshops on the CBA

- (b) Supporting the Authority to respond to questions from stakeholders
- (c) Providing other CBA-related support to the Authority on request."



