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| **Draft Determination Publication** | |
| **Network Queries** | |
| **Network Reference number** | CADENT \_DDQ\_69 |
| **Licence** | CADENT |
| **Topic/Activity:** | Regression model results |
| **Question:** | 1. On page 13 of the Step by Step Guide to Cost Assessment you present the results from regression models OLS1, OLS2 and OLS3. We have reviewed these models and are unable to replicate the results for OLS3.   Could you please confirm whether the results for OLS3 are an error and please provide the correct results?  In addition, please note that for OLS1, the coefficient reported for the constant does not match the coefficient in the model output in spreadsheet [6] Regression, which shows the coefficient to be 0.313. Please confirm this is an error in the narrative   1. With regard to the regression output for bottom up cost model 7, the output shows n=103 rather than 104 for the rest of the model. Could you please confirm that this is an error, or whether you excluded a data point and why. If it is an error, could you please provide the corrected regression output. |
| **Confidential** | No |
| **DDQ raised by** | Kate Haycock |
| **Date query raised** | 03/08/2020 |
| **Expected response date** | 07/08/2020 |
| **Ofgem Response:**  1. The specification in OLS3 includes a quadratic term to test for a potential non-linear relationship. To deal with dimensionality, the variables have been normalised with respect to the sample mean. However, the quality of the regression does not change if the variables are not normalised – the only difference would be in the estimated coefficients magnitude.  Thanks for pointing out the issue about the constant term. The error is in the narrative, the model is correct.  2. There was a negative value for the cost variable. As logarithmic transformation can only be applied to positive values, the data point was automatically excluded. | |
| **Attachments:** | |