

EB-2007-0606/EB-2007-0615
Technical Conference
October 3-5, 2007

Questions from Union Gas for Board Staff / PEG:

Reference: Enbridge Interrogatory #9 (b)
Reproduction of Tables 19(a) and 19(b)

Question 3:

Please explain more precisely how the cost equation residuals discussed in the response to Enbridge IR #9(b) were calculated. In particular, were they calculated from one of the following:

- (1) A first stage SUR regression (no firm specific heteroscedasticity) where the parameters were constrained across equations and the covariances across equations were restricted to be zero (a diagonal variance covariance matrix)
- (2) A first stage SUR regression (no firm specific heteroscedasticity) where the parameters were constrained across equations, but the covariances across equations were not restricted to be zero (the usual SUR regression).
- (3) An OLS regression on the cost function, where the only restriction was the linear homogeneity in prices of the cost function.
- (4) An OLS regression using all three equations, where the three equations are stacked so that the parameter constraints across equations are satisfied.
- (5) None of the above.

If the answer is (5), please explain your method in sufficient detail that the results in files econometric cost model COS.txt and econometric cost model GD.txt of the working paper folder can be reproduced.

Question 4:

Were the firm specific heteroscedasticity weights that were used to transform the data to create the HETSUR regression computed as:

$$1/[\text{Square Root } (e_i'e_i/n_i)]$$

where e_i is the cost equation residual vector for the i th firm and $n_i = 11$?

If the answer is no, please provide a detailed description of the procedure that you utilized to obtain the weights.