FILE DESCRIPTION

This note describes the files used in the Economic Insights report *Electricity Distribution Industry Productivity Analysis: 1996–2013* prepared for the Commerce Commission. The files comprise an Excel spreadsheet (Economic Insights NZ EDB Database excl Orion Jun2014.xls) and input, output and data text files for the Shazam econometrics program.

Excel spreadsheet database

The Excel spreadsheet database file lists the data for all output and input variables used in the productivity analysis. The first sheet presents data for each EDB and for the aggregates of the industry and non–exempt EDBs. Derivation of the financial capital maintenance consistent amortisation charges for the industry and for the aggregate of non–exempt EDBs are set out in the second and third sheets, respectively. The fourth and fifth sheets derive the opex price index.

All data used for each EDB have been derived from relevant Information Disclosure Data. In some cases adjustments have been made as described in Lawrence (2003, 2007) and Economic Insights (2009, 2014) to remove reporting and other anomalies.

Shazam Files

There are Shazam files for the estimation of the four Leontief cost functions. The input files are labelled LCSTFN1IN.TXT to LCSTFN4IN.TXT. Corresponding output files are labelled with ‘OT’ instead of ‘IN’. All four input files use the data file CSTFNDATA.TXT.

There are seven separate sets of TFP files for each of the industry level analysis and the non–exempt EDB analysis. Each set of Shazam runs comprises an input or command file commencing with ‘TFP’ and has ‘IN’ in the file title and a corresponding output file that has ‘OT’ in the file title. Industry analysis files contain the identifier ‘IND’ while non–exempt EDB analysis files contain the identifier ‘NE’. The industry level data file is EDDATA1.TXT while the non–exempt level data file is NEDATA1.TXT.

The seven TFP specifications are as follows:

- #1: Outputs of energy, system capacity and customer numbers with output cost share weights and Inputs of opex, overhead lines, underground cables, and transformers and other capital
- #2: Outputs of energy, maximum demand and customer numbers with output cost share weights and Inputs of opex, overhead lines, underground cables, and transformers and other capital

- #3: Outputs of energy, ratcheted maximum demand and customer numbers with output cost share weights and Inputs of opex, overhead lines, underground cables, and transformers and other capital
- #4: Outputs of energy, ratcheted maximum demand, customer numbers and circuit length with output cost share weights and Inputs of opex, overhead lines, underground cables, and transformers and other capital
- #5: Outputs of energy, maximum demand, customer numbers with revenue–based weights and Inputs of opex, overhead lines, underground cables, and transformers and other capital
- #4A: Outputs of energy, ratcheted maximum demand, customer numbers and circuit length with output cost share weights and Inputs of opex and constant price depreciated asset value
- #5A: Outputs of energy, maximum demand, customer numbers with revenue–based weights and Inputs of opex and constant price depreciated asset value

References

Economic Insights (2009), *Electricity Distribution Industry Productivity Analysis: 1996–2008*, Report by Denis Lawrence, John Fallon and John Kain to the Commerce Commission, Canberra, 1 September.

Economic Insights (2014), *Electricity Distribution Industry Productivity Analysis: 1996–2013*, Report by Denis Lawrence and John Kain to the Commerce Commission, Eden, 24 June.

Lawrence, D. (2003), *Regulation of Electricity Lines Businesses, Analysis of Lines Business Performance – 1996–2003*, Report prepared by Meyrick and Associates for the New Zealand Commerce Commission, Canberra, 19 December.

Lawrence, D. (2007), *Electricity Distribution Business Productivity and Profitability Update*, Report prepared by Meyrick and Associates for the New Zealand Commerce Commission, Canberra, 7 December.