

### **Undertaking No. J3.3**

To confirm whether level of correlation between time trend and population variable used in total purchases equation is somewhere between 98 and 99 percent, p. 127.

#### **Response:**

The level of correlation between time trend and population variable used in total purchase regression equation is calculated at 98.7%. It was determined that both trend variable and population are statistically relevant.

In Undertaking JT2.23 (also Board Staff IR#23), the intervenors requested that the “Population” be excluded from the load forecasting model. It’s important to note the following:

- “Temperature Cubed” and “Build Up” variables were found to be statistically irrelevant at 11.35% and 5.19%, respectively.
- Removing “Temperature Cubed” and “Build Up” variables from the load forecast model reduces the model accuracy. This is evidenced by:
  - The adjusted R-Squared decreased from 0.987 to 0.985;
  - Mean absolute percentage error (MAPE) increased from 0.86% to 0.91%.