Supervisor's report on dissertation "Short-term forecasting of electricity consumption" written by Elena Kapustina

Elena Kapustina fulfilled all the instructions set up for the master's dissertation, which include the description and evaluation of forecast performance of electricity consumption. For this purpose, the Sibelectromotor enterprise was chosen. Understanding which of the four methodologies considered in the dissertation delivers more precise forecast is important for planning and optimization targets.

When working with Elena, I was making suggestions to ensure clarity and correctness. But there are still some parts left unclear, imprecise, or incorrect in the dissertation. For example, the description of p-value as "Probability of obtaining results", or X_t as "True value in time period", or the second sentence in paragraph 4 on page 21, or the first sentence on page 49, or the first sentence in Section 5.2. This is understandable as English is not the student's native language.

Lena was working diligently throughout the whole year. She also submitted part of her dissertation for consideration for a poster presentation.

Comments and questions:

Explain why namely Sibelectromotor was chosen as a case study? How other enterprises in Russia could benefit from the dissertation's results?

I suppose that in the last column of Table 5, the three zeros in the decimal part are redundant.

There are various criteria used for evaluating forecast performance (e.g., MAE, MSE, etc). Can you state which of these criteria would be more appropriate to use for the electricity consumption data.

Is the tornado diagram always symmetric as described in Figure 35 ?

These comments and questions must be addressed during the dissertation defense.

For the dissertation I propose the classification B (very good).

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