Our CNY-aware model in power consumption forecast.

Similar results are given in Figure.4 below. The results show that the proposed CNY-Aware ARIMA forcast outperformed the original ARIMA one, except in 201007, 201108, 201012 and 201103 cases where the differences are relatively modest.

5. Conclusions

We propose in this paper a tailor-made ARIMA model which can effectively deal with the seasonal effect of time series analysis. The experimental results show that this Chinese-new-year-aware variant significantly outperforms the traditional ARIMA model in power consumption forecast.

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