

Sutasinee Pho-ong 2012: Short Term Load Forecasting in Smart Grid. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Associate Professor Vichai Surapatana, M.Eng. 71 pages.

In the development of smart grid, There is a large amount of new technologies that should be applied in power generation, transmission and distribution to achieve optimization of the energy efficiency, planning and energy saving. Power demand forecasting is a key element for power system planning to make grid smarter. It can be used as guidelines for management of energy supply from various sources. This paper presents a model for short-term electricity consumption forecasting using a polynomial regression analysis. From the results, the proposed method shows good performance. Due to its simplicity and good performance, this method can be applied and is suitable for short-term electricity consumption forecasting especially for smart grid scenario.

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