



**De La Salle University - Dasmariñas**

**FORECASTING ELECTRIC POWER GENERATION  
IN MINDANAO**

A Thesis  
Presented to the Faculty of the  
Allied Business Department  
De La Salle University- Dasmariñas  
College of Business Administration and Accountancy  
City of Dasmariñas, Cavite

In Partial Fulfilment  
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**ABSTRACT**

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The purpose of this research paper was to describe the status of the Mindanao power sector; to describe the trends of the nonprice determinants (hydropower, geothermal power, coal, and natural gas) used in the study; to identify the factors affecting the Mindanao electric power generation; and to forecast the electric power generation in Mindanao for the next five years. Multiple regression was used to determine the factors influencing electric power generation in Mindanao. Multiple regression was used to identify the factors affecting the electric power generation in Mindanao. Forecasting was done using ARIMA models. EVIEWS7 and Excel were used in processing data.

Mindanao power sector was somehow concentrated based on the Herfindahl-Hirschman (HHI) of 1.94097 with Agus Hydro plants having the biggest market share based on installed capacity of 6,373,622 MWh. The electric power generation in Mindanao is affected positively by hydropower generation, geothermal power generation, coal production, and natural gas production. Among the four factors, it is remarkable that hydropower generation has the biggest effect on electric power generation in Mindanao. Coal and natural gas were also found significant but not geothermal power.



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Electric power generation in Mindanao is forecasted to reach 10,011,282 MWh in 2017. Coal production will significantly increase in the next five years compared to the other three determinants.

This study recommends to continue the rehabilitation and sustaining the operation of Agus and Pulangui hydropower plants; to invest more on coal production; to redefine the Electric Power Industry Reform Act (EPIRA); to undertake a more aggressive information, education, and communication campaign in Mindanao regarding the power situation; and to pursue the interconnection of the Visayas and Mindanao grids.

