

## **ABSTRACT**

*During 2000 – 2008, electricity took an important role in increasing carbon emissions in ASEAN. In this thesis, the emission's controlling factors are seen from the energy supply, electricity consumption, GDP, and population in ASEAN. The using method is decoupling analysis which aims to identify the state of each country during the period, Long-term empirical estimation using the fixed effect model (FEM) and short-term estimation with error correction model (ECM). The results show that energy supply has a positive effect on carbon emissions both in the long and short term. Increasing energy supply will have an impact on increasing carbon emissions. Electricity consumption also has a positive effect on carbon emissions in the short term. Decoupling analysis of electricity consumption and national income reveals six decoupling status. Most ASEAN countries have experienced expansive negative decoupling or increase in electricity consumption higher than the increase in national income. Those explanation describe the increasing of national income is still depend on electricity consumption, on the other hand the source of electrical energy mostly comes from fossils in which potentially cause an increasing on carbon emissions*

*Keywords: Decoupling Analysis, Carbon Emissions, Electricity Consumption, ASEAN-9*