

## **INTISARI**

Penelitian ini bertujuan untuk menganalisis adanya Environmental Kuznet Curve (EKC) di Indonesia dalam analisis secara total energi dan masing-masing energi primer (batu bara, gas dan minyak) di Indonesia pada tahun 1971-2015. Pengaruh antara pertumbuhan ekonomi per kapita dan konsumsi energi terhadap jumlah emisi karbon dioksida (CO<sub>2</sub>) secara empiris penelitian menggunakan Autoregressive Distribute Lagged (ARDL) bound test untuk menganalisis pengaruh jangka panjang antarvariabel. Arah hubungan kausalitas antarvariabel dianalisis menggunakan VECM Granger Analysis. Hasil dari penelitian adalah, secara total energi, EKC terjadi di Indonesia dalam jangka pendek dan jangka panjang, sedangkan dalam model masing-masing energi, EKC terjadi dalam jangka pendek untuk model energi gas. Konsumsi energi mempengaruhi emisi karbon dalam jangka pendek maupun jangka panjang, secara agregat dan disagregat. Hubungan antara pertumbuhan ekonomi dan emisi karbon memberikan dampak yang beragam dalam keempat model estimasi.

Kata kunci: Energi, Emisi karbon, Pertumbuhan Ekonomi, Environmental Kuznet Curve, Kointegrasi, Kausalitas Granger, Q4, 013

## **ABSTRACT**

This study aims to analyze the presence of Environmental Kuznet Curve (EKC) of total energy, primary energy (coal, gas and oil) in Indonesia for period 1971-2015. The impact of economic growth per capita and energy consumption towards Carbon Dioxide (CO<sub>2</sub>) emissions empirically examined using the Autoregressive Distribute Lagged (ARDL) bound test to investigate the long-run relationship. The direction of relationship between variables examined using VECM Granger Analysis. The result for aggregated analysis show the present of EKC in short and long-run, while the EKC only present in gas energy model for short-run and coal energy model in long-run. The main driving of emissions is energy consumption, since result show consumption in short- and long-run affected the carbon emission positively in aggregate and disaggregate level. The relationship among economic growth and carbon emissions varies for disaggregate energy consumption.

*Keyword:* Energy, CO<sub>2</sub> emissions, Economic Growth, Environmental Kuznet Curve, Cointegration, Granger causality, Q4, 013



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