

ABSTRACT

The transition from fossil fuels to renewable energy is a key priority in many countries, including Indonesia. Indonesia has enormous renewable energy potential, but national energy consumption is still dominated by fossil fuels. This situation hinders the renewable energy sector's contribution to economic growth and underscores the importance of quantitatively identifying the sector's role in the economic structure. This study aims to analyze the impact of renewable energy development on Indonesia's economic growth through an analysis of intersectoral linkages in the economy and multiplier effects on output, household income, and employment opportunities.

The method used was input-output analysis, employing Indonesia's 2020 Input-Output Tables aggregated into 22 sectors to calculate intersectoral linkages and the output and household income multiplier effects, and into 17 sectors to calculate the employment multiplier effect with the electricity generation sector serving as a proxy for the renewable energy sector. An investment of Rp 37.77 trillion was modeled as a shock to calculate the impact on output, household income, and employment.

The research results show that the Electricity Supply sector, as a proxy for renewable energy, has the highest backward linkages, while its forward linkages are lower than those of the Gas sector but still above the average value for forward linkages. A simulation of a renewable energy investment shock resulted in a total change in output of Rp103.53 trillion, a change in household income of Rp8.15 trillion, and the creation of 111,893 jobs spread across all sectors of the economy. These findings indicate that the renewable energy sector proxied by the electricity supply sector exhibits strong intersectoral linkages in both upstream and downstream segments, thereby holding the potential to become a leading sector that drives Indonesia's economic growth through broad-based increases in output, household income, and employment opportunities.

Keywords: *New and Renewable Energy, Electricity Supply Sector, Input-Output Analysis, Multiplier Effect, Economic Growth*