

# **Circular Economy Approach for ASEAN's Clean Energy Transition: New Opportunities and Challenges after the COVID-19 Pandemic**

**Rahmad Hendrawan**

Master in Management, Faculty of Economics and Business, University of Gadjah Mada,  
Yogyakarta, 55281, Indonesia.

rahmadhendrawan@mail.ugm.ac.id

**Abstract.** Many researchers and practitioners focused on renewable energy development are looking to innovate business models to find new ways to create and leverage value from circular economy approach. The main concern is to address the challenges and inefficiencies in the energy transition. In business, such inefficiencies are referred to as bottlenecks. However, the enormous potential of circular economy approach and business model innovation to overcome obstacles in the energy transition has not been widely researched, especially in the case of ASEAN. This paper contributes to filling this gap. It appears that circular economy approach facilitates business model innovation that overcomes barriers to integrating renewable energy technologies into incumbent structures or barriers associated with the independence of renewable energy technologies from established structures. Furthermore, business model innovations to address these bottlenecks can be incremental or transformative. As a result, business model innovations based on a circular economy approach appear in three types. Each type triggers new recommendations for research and practice of business model innovation and governance of renewable energy transitions.

**Keywords:** *ASEAN; Circular economy; COVID-19; Energy transition; Sustainability*