Summary

This text discusses the concept of energy intensity (EI), which measures the amount of energy needed to produce a unit of economic output. It emphasizes the significance of reducing energy intensity for global competitiveness, environmental sustainability, and energy security. It specifically focuses on Indonesia's energy challenges, highlighting its high contribution to global energy consumption and emissions. The text examines Indonesia's electricity generation mix, its progress in energy efficiency, and the need to reduce energy intensity despite its high primary energy intensity. The paper aims to analyze the factors influencing energy intensity in Indonesia, focusing on the impact of the energy transition, renewable energy sources, and financial development. It also discusses the role of government subsidies in energy consumption.

Next the text discusses various empirical studies examining factors affecting energy intensity (EI) and the implications of these findings on economic structures. It highlights three fundamental factors leading to a decline in EI: structural adjustments in terminal demand, improved energy utilization efficiency, and substitution of more efficient fuels. The role of factors such as FDI inflows, trade openness, energy prices, and industrial activities in influencing energy intensity is explored. The text also discusses the impact of government policies, such as reducing subsidies and increasing energy prices, in tackling energy intensity issues. Additionally, it examines how changes in industrial structure can affect energy intensity positively or negatively. The text provides insights from studies on countries like China, Indonesia, South Africa, and Ghana, emphasizing the importance of addressing energy intensity for sustainable development.

At the end the text discusses the importance of technological change in reducing energy intensity and the impact of technological development on energy requirements. It explores studies highlighting the negative relationship between technology and energy intensity in various countries. The text also examines the shift towards a service economy and its contribution to lowering energy intensity levels in OECD countries, emphasizing the need for the service sector to improve its energy efficiency further.

Comparisons between the economies of Indonesia and China are made, with a focus on Indonesia's efforts to attract foreign investment and improve its infrastructure in response to economic challenges. The text addresses Indonesia's potential increase in energy intensity due to the growth of its working-age population and the need to create new jobs. It warns of the risks of increasing energy intensity to meet economic targets rather than focusing on energy efficiency and sustainable development. Drawing parallels to China's past environmental problems, the text emphasizes the importance of taking action to address energy intensity issues now to prevent similar challenges in the future.

Comments

The author starts with more general concepts and ends with a niche, I think this applies to the CARS model. The very concept of EI was explained quite clearly, even if you don't know what it is, there were also illustrative examples of why EI is important, what EI affects, how it can be improved and why it needs to be improved. So the problem as a whole is disclosed quite well. The author refers to many empirical works, but it is not completely clear which methods he will use in his work.

Considering this text, it was found that the author is quite strongly focused on the Southeastern region and makes a comparison for the most part with China, this is good, if Indonesia follows the path of China, then such a comparison is appropriate. The author also mentioned a little in the article what is happening with EI in other parts of the world, for example, in developed Europe and North America, but I did not find any mention of less developed South America, where most countries are third world countries, like Indonesia. It is good that the author focuses on a very narrow region and does not spread out over the whole world, but casually mentioned other countries from other regions, which is useful for compiling a complete picture of the world.

There was a lack of a stronger immersion in economics, namely calculations, figures, formulas, economic models, perhaps the author has it in the methods, but it is not very clear to me what he uses in the methods.

As a result, we can say that the author has disclosed the problem quite well, starting with a general definition, ending with narrower details. It is clear what this work is for and why, and what its application is in the real world. There was a lack of a description of the methods, as well as a more economic and mathematical immersion and logical conclusions.