

OIL PALM BIOMASS (EMPTY FRUIT BUNCH AND OIL PALM KERNEL SHELL) AS A SUSTAINABLE RENEWABLE ENERGY: A REVIEW

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ABSTRACT

OIL PALM BIOMASS (EMPTY FRUIT BUNCH AND OIL PALM KERNEL SHELL) AS A SUSTAINABLE RENEWABLE ENERGY: A REVIEW

Empty fruit bunch (EFB) and oil palm kernel shell (OPKS) is a waste material derived from oil palm post-harvest activities in the plantation area and also in palm oil mills that has a very high production in Malaysia due to the massive size of its oil palm industry. There are many effort has been done in order to convert this biomass into a sustainable renewable energy. In this paper the availability of EFB and OPKS and also its sustainability was summarized. Abundance of this oil palm biomass are affected by cultivation of oil palm in Malaysia which can sustain for usage as an energy feedstock for a long period of time. This matter are supporting the facts that EFB and OPKS can stay sustain and also will slightly reduce environment pollution that produced by other energy sources. There is also potential utilization of EFB and OPKS as a sustainable renewable energy products included. Energy related products such as bio fuels can be derived from both EFB and OPKS. The information provided in his review shown a positive feedback for EFB and OPKS to act as a sustainable renewable energy.

Keyword: empty fruit bunch (EFB), oil palm kernel shell (OPKS), sustainable energy, renewable energy, oil palm industry, oil palm