ABSTRACT

Projection Energy Of Demand In Lampung Province By Using
Longe-Range Energy Alternatives Planning System (LEAP) Software

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Lampung province is a region with strategic location as gate for economics exchange from Java to Sumatra or the opposite way. Beside of that huge enough natural resources potential can be the base and capital finance to the development including energy resources potential. Every years, energy demand significantly increase if transportation fix link between Java and Sumatra island realized well, so energy demand will drastically increase. But, generally energy supply in Lampung still not fulfilled by themselves. Because of that, energy supply projection for future to help energy supplying is needed, so that with this planning, Lampung province can project energy supply to fulfill the energy demand.

The research on energy planning in Lampung Region Province is done using LEAP (Long-range Energy Alternative Planning system) version 2008. The study of energy supply-demand is done for two scenario that is base (pursuant to BAU) and optimal (its fix link). Energy demand projection is calculated using historical data of economics, resident and energy activity (intensity using of energy).

The result shows that the most energy demand in Lampung region 2025 base scenario, base on consumed energy is diesel oil 5,460,4 thousand BOE (Barrel of Oil Equivalents), followed premium 4,739,7 thousand BOE, electricity 2,640 thousand BOE, LPG 1,795,2 thousand BOE, firewood 1,553,4 thousand BOE, kerosene 257,2 thousand BOE, biomass 47 thousand BOE, and charcoal 800 BOE. At optimal scenario energy demand projection diesel oil type equal to 5,688,6 thousand BOE, premium 4,853 thousand BOE, electricity 2,823,9 thousand BOE, LPG 1,896 thousand BOE, firewood 1,517,1 thousand BOE, kerosene 271,6 thousand BOE, biomass 49,1 thousand BOE, and charcoal 1 thousand BOE.

Key words: energy projection, LEAP model, energy intensity, optimal scenario