STUDY OF SEA TRANSPORTATION MODELING TO SATISFY COALS DEMANDS ON 2 X 15 MW STEAM POWER PLANT (PLTU) IN WAAI VILLAGES AMBON ISLAND

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ABSTRACT

Due to government policy linked to electricity power needs which raising gradually especially in Ambon Island, so government will establish PLTU which has capacity 2 x 15 MW. The Steam Power Plant is placed in Waai villages (Ambon Island) and the project is supposed to be operated in 2012. Having operating this PLTU, the coals as fuel will be needed 86,979.86 ton/years which is supplied from mining center abroad of Ambon Island. This condition will effect cost, time and capacity supply for electricity generator demands on Ambon Island. Modeling was conducted by making 3 alternating each location as North Pulau Laut (South Kalimantan), Obi Island (North Maluku) and Nabire (Papua). The selected transportation is sea transportation namely Barge with length 120, 180, 230, 300 feet and bulk carrier 3765 and 6341 DWT.

The result show that barge 300 feet was selected as transportation with mining location in Obi Island. Total Cost for supply coal per years is Rp. 13,803,486,811,56,-

Key Words: Coal, Transportation Models