

PENGARUH PEMBANGUNAN PLTN DAN DESALINASI DI MADURA TERHADAP EKONOMI SEKTORAL: PROYEKSI DENGAN MODEL I-O (INPUT-OUTPUT) DINAMIS ¹

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ABSTRACT

Nuclear power plant (NPP)-desalination project (200MWe and 40,000m³/day) is proposed to be constructed and developed in Madura as the solution for the lack of basic infrastructure. An analysis of sectoral economic impacts of that project is being evaluated using dynamic I-O model. The investment (2009) is estimated to around US\$ 521.19 million (Rp 6,250 billion) or US\$ 458.59 million (Rp 5,575.5 billion) excluding the make up payments and licensing expenses.

The results, the pre-project (2010-2013) affects the economy indirectly through make up payments, and licensing expenses (raises the outputs, GRDP, and employment, as much as Rp 713 billion, Rp 405.5 billion, and 35,954 manpower). During construction (2014-2017), injection in the economic sectors produces additional outputs, GRDP, and employment as much as Rp 369.7 billion, Rp 175.5 billion, and 16,505 manpower. In the pre-operation (2018), using two scenarios show additional outputs, GRDP, and employment creation amounted to Rp 502.2 billion, Rp 60.7 billion, and 5,175 manpower (first); and as much as Rp 580.2 billion, Rp 67 billion, and 5,944 manpower (second).

Key Words: nuclear power plant (NPP)-desalination; electricity; water; I-O (input-output) dynamic model; dynamic-static simulation; projection; RAS; direct-indirect impact; production/ output; GRDP-final demand; and employment.

JEL Classification: C67; E17; O22; Q43; R11

1. PENDAHULUAN

Infrastruktur berperan sangat penting dalam pembangunan ekonomi. Dalam kasus di Indonesia, Azis dan Kuncoro [2000] memperlihatkan bahwa pembangunan infrastruktur yang gencar dilakukan pemerintah selama *boom* minyak (1970-1982) memberi sumbangan yang signifikan bagi pertumbuhan TFP (*total factor productivity*) sebesar

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