

# **BPPT will Develop Power Reactor Pilot Project of 10 MW Nuclear Power Plant (PLTN)**

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DGNREEC – The government will do trial of power reactor of 10 MW nuclear power plant (PLTN). The trial will be done by Agency for Assessment and Application of Technology (BPPT).

This is including into the 9 leadership agendas of President Joko Widodo and Vice President Jusuf Kalla or we called it Nawacita, in order to achieve the energy sovereignty as one of the objectives of Medium Term Development Plan (RPJMN) 2015-2015.

“This plan as the part of Nawacita for energy sovereignty, and build a demo plant pilot project of nuclear power plant”, said the Director General of DGNREEC, Rida Mulyana, in Jakarta, Tuesday evening, on March 31th, 2015.

Based on the data that quoted from PT. PLN Electricity Supply Business Plan 2015 – 2024, and it mentioned that related to the capital cost, in the study result that had been held by PT. PLN and a foreign company on 2006 indicated that the PT. PLN investment cost is about US\$ 1,700 per kW and it is only for engineering, procurement, and construction (EPC) or US\$ 2,300 per kW after calculated the loan interest cost during the construction.

That amount is deemed too low, due to some update reports, it mentioned that the nuclear power plant in some countries has achieved higher amount. In the nuclear power plant feasibility study which is held by PT. PLN and assisted by foreign consultant on 2014, it obtained that the amount of nuclear power plant investment has been increased is about US\$ 6,000/kW.

This increasing is a normal thing considering that fossil energy price is getting higher and more real threat of global climate change as a result of carbon dioxide emissions from the combustion of coal or other fossil energy, and it actually make the nuclear power plant as the interesting energy source optional to participate in order to fulfill the electricity demand in the future. Especially if the project cost, waste management control cost, and decommissioning cost has got clearer.

The high early investment and the long duration time of implementation of nuclear power plant need support from the government in long term, in order to make the development and construction nuclear power plant able to get finalized on the schedule. Therefore, in the Electricity Supply Business Plan (RUPTL) 2015-2024, nuclear power plant has not mentioned yet until there is nuclear power plant development program will have decided by the government.

The factor is decision making of nuclear power plant is not only based on the economic and profitability consideration, but also considering the other aspects, such as politic, National Energy Policy (KEN) targeted the utilization of new and renewable energy is about 23% on 2025, social acceptance, culture, climate change, and environment protection. Considering the multidimensional aspects, nuclear power plant construction program can only be decided by the Government.