

Indonesian fertilizer giant Pupuk Kaltim Timur (PKT) plans a \$4B expansion

23 May 2023 | News

Enters a multiorganisational partnership over a joint study on green ammonia production aimed at building a facility that can produce 1 million tones of green ammonia annually



Enters a multiorganisational partnership over a joint study on green ammonia production aimed at building a facility that can produce 1 million tones of green ammonia annually

Pupuk Kalimantan Timur (PKT), the fertilizer giant with five Ammonia plant units and five Urea plant units in Indonesia has entered into a multiorganizational partnership on a research project investigating green ammonia production. By signing a Memorandum of Understanding (MoU), PKT marks a significant milestone in efforts to achieve carbon-free ammonia production.

PKT has collaborated with Copenhagen Atomics, Topsoe, Alfa Laval, Aalborg CSP, and Pertamina New & Renewable Energy to study green ammonia production by signing the MOU in Copenhagen, Denmark.

The joint study will focus on building a facility that can produce 1 million tonnes of green ammonia per year, with an estimated investment of \$4 billion.

Green ammonia production involves the use of 100% renewable and carbon-free processes to manufacture ammonia. With the use of green hydrogen generated via water electrolysis, ammonia is produced without harmful carbon emissions. This breakthrough technology promises to transform ammonia production, ushering in a new era of sustainability and eco-friendliness.

The study aims to overcome the challenge of energy intensity in producing green ammonia. Conventionally, the separation of ammonia from its reactants involves significant temperature and pressure fluctuations that rely on the use of fossil fuel energy. However, the study seeks to ascertain whether the use of Thorium-based nuclear technology can enable the production of

ammonia without the use of hydrocarbon raw materials while remaining competitive in price.

In line with its commitment to sustainability and achieving net-zero emissions by 2050, PKT aims to replace all grey ammonia products produced using hydrocarbon raw materials with green ammonia, creating a more sustainable future for all.

The President Director of PKT, Rahmad Pribadi stated that: "PKT views the joint study as an essential step towards achieving our sustainability goals. We are honoured to work with industry leaders to promote sustainable practices and contribute to a greener planet. Our commitment to sustainability is reflected in our focus on innovation to revolutionise the agricultural sector. As consumers increasingly prefer sustainable and eco-friendly products, PKT is proud to be at the forefront of this movement."