

JGC



Ammonia Alliance Japan



Contribution to Materialize Economical Clean Fuel NH₃ Supply Chain

28 September 2022,
ICFA 2022

We entered the business alliance for fuel NH3 EPC business



Strengths

- Extensive experience in **large scale** projects and **modular construction**
- More than **20,000** projects in over **80** countries

Strengths

- Extensive experience with **KBR licensed** NH3 plant
- **86** NH3 plant projects and **48** NH3 tank projects track records

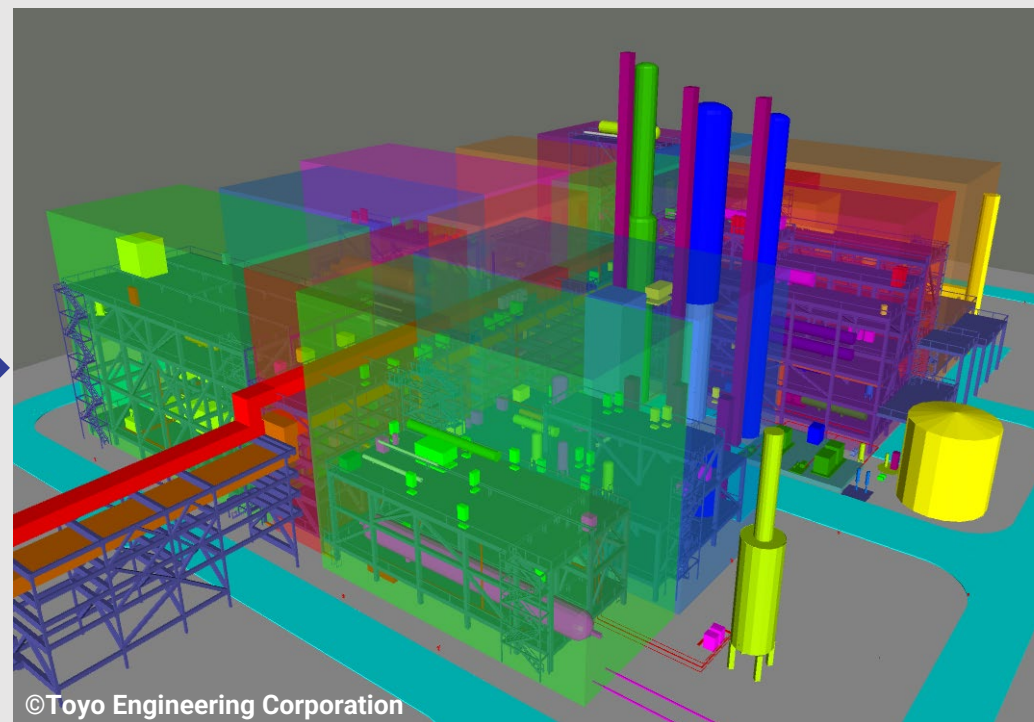
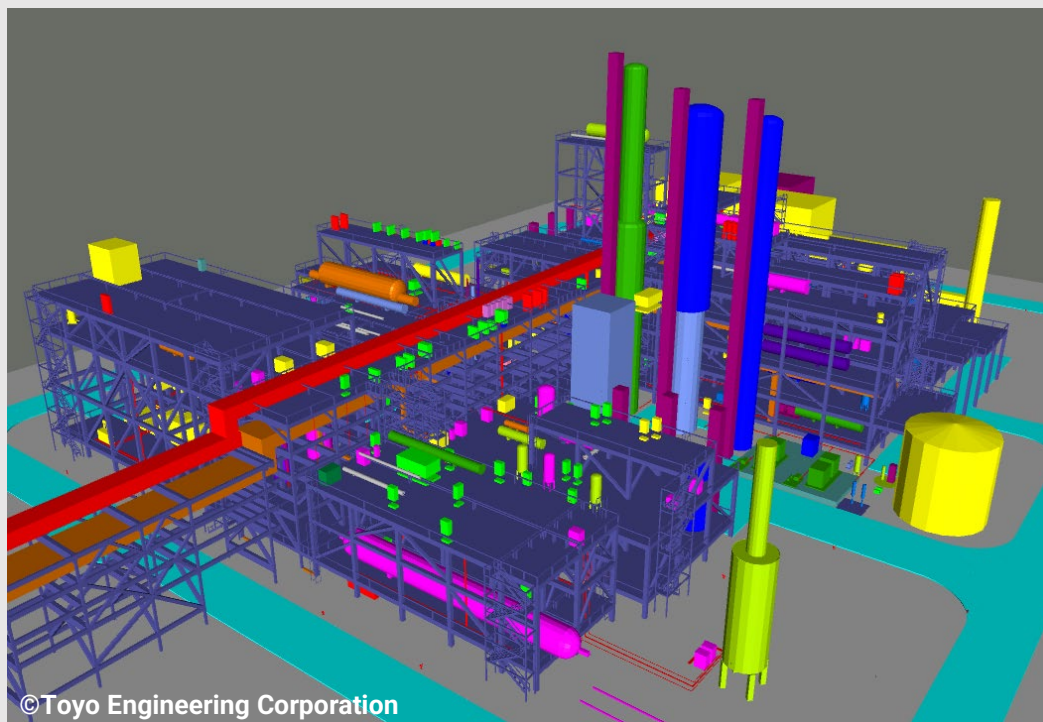
Ammonia Alliance Japan leverages our strengths to create synergies and contributes to build economical clean fuel NH3 supply chains

CHALLENGE ①

How do we reduce the cost of BLUE NH₃?

Developed 3D model & BOQ for 3,000MTPD modularization

3,000MTPD NH3 module



Evaluated design of 6,000 MTPD NH3 plant, and become ready for FEED

CHALLENGE ②

How do we reduce the cost of GREEN NH₃?

Make existing assets value up for carbon neutral of Indonesia

QUICK	Utilize PIHC's existing facilities → Add electrolyzers on NH3 plants → Get RE electricity from the grid	
ECONOMIC	Minimize CAPEX and OPEX → Utilize unused NH3 capacities → Level out NH3 annual production	
LARGE	Swap "green" value with other plants → Earn "RE & Green NH3 Certificate" → Aggregate green NH3 virtually	

What is our VALUE?

AAJ can materialize economical fuel NH3 supply chain

1. Reduce construction risk by modularization

- Developed 3,000MTPD 3D model and construction BOQ
- Ready to deliver based on deep experience and study

2. Benefit “Economics of Scale” by enlarging plant capacity

- Evaluated design of 6,000 MTPD NH3 plant
- Became ready for FEED

3. Maximize QCD level by leveraging existing facilities

- Connect electrolyzer and utilize unused production capacity
- Earn “RE & Green NH3 Certificate” and swap with other plants

Thank you!

