



Press Release

Kowa Company, Ltd.

Kowa, Adani Power & IHI collaborate for Ammonia

Co-firing in Thermal Power Plants in India

March 22 2022: Kowa Company, Ltd. (Kowa) announced the conclusion of Memorandum of Understanding (MoU) with India's largest private thermal power producer, Adani Power Ltd. (APL) and IHI Corporation (IHI) that aims to perform and evaluate a technical and economic feasibility study concerning a potential modification to achieve 20% liquid ammonia co-firing ratio and higher co-firing ratio up to 100% mono-firing at the Adani Power Mundra Coal Fired Power Plant.

Utilizing Green Hydrogen derived Ammonia in existing Thermal Power plant can contribute significantly to India's goal of achieving Net Zero by 2070. In line with India's goal, APL intends to lead initiatives in achieving greenhouse gas reduction targets by evaluating the possibility of potential implementation of ammonia as a fuel in thermal power generation. Kowa supported this initiative by conducting a global survey of technologies related to hydrogen and ammonia. IHI, looking to implement the world's first ammonia co-firing at 20% for a domestic large scale commercial coal fired power plant, along with APL and Kowa, have jointly agreed to carry out a feasibility study to evaluate the potential of 20% ammonia co-firing in India.

To achieve de-carbonization of APL's coal fired assets, the parties, by considering the possibility of ammonia co-firing through the studies, aims to de-carbonize APL's coal fired assets with an eye on potentially implementing the technology to other coal fired units within India. These studies contribute to carbon neutrality in India in line with the "India-Japan Clean Energy Partnership (CEP)" announced by the Indian and Japanese government on March 19, 2022, aiming to promote energy cooperation between Japan and India through diverse and realistic energy transitions utilizing all energy sources and technologies to ensure energy security, carbon neutrality and economic growth. In addition, the parties intend to conduct research and development, demonstration and commercial implementation in parallel with that in Japan to achieve early global implementation of fuel ammonia supply chain.

Kowa, a multi-decadal strategic business partner of Adani Group, entered into a comprehensive business alliance with the Adani Group in 2011 and has assumed the role of a bridge in introducing advance technologies, products, equipment and finance from Japan.

Kowa is undertaking initiatives for a decarbonized society at home and abroad, and this joint demonstration in India is one of those efforts. Kowa will continue to develop and promote various utilization models of sustainable energy including green hydrogen, ammonia among others contributing towards a carbon neutral and sustainable world.

About Kowa Group

Kowa, founded in 1894 as a cotton fabric wholesaler in Japan, has grown into a global enterprise actively engaged in various business fields from research to manufacturing and sales of medicines, medical equipment, food, optical products, energy saving and energy creating products as well as trading of wide range of commodities, textiles, vessels, machinery and chemicals. The company has embarked on its journey to provide sustainable environmental & infrastructure solutions to its customers.

For more information, please visit <https://www.kowa.co.jp/eng/>