

Presentation title: Development Status of Green Ammonia Co-firing technology and Demonstrations

Strategy in Korea Abstract: The international community has announced Nationally Determined Contributions (NDC) with the aim of achieving carbon neutrality and actively engaging 137 countries in response to the climate change crisis. Professor Chung-Hwan has contributed to many national key projects on coal combustion and gasification, oxy-fuel, IGCC as well as the major project involving the upgrading coal project with the Korean Institute for Energy and Resources (KIER), the Korean Electric Power Research Institute (KEPRI) and fossil fuel specialists Doosan Babcock. Accomplishing the ammonia co-firing demonstration is crucial for the future of South Korea, and it requires collaboration among various institutions to realize the carbon neutrality goals of both South Korea and the global community. Professor Chung-Hwan has held various positions which include General Director of Korean Society of Combustion (KOSCO), Korean Society of Mechanical Engineering (KSME), and Head of Department of Thermal Power Combustion Engineering for Korea Electric Power Co. (KEPCO). To achieve this target, technological development and infrastructure construction are needed to address various technical aspects (combustion, performance, system, and environmental) associated with ammonia co-firing in existing boilers. In this role with KEPCO Professor Chung-Hwan established PNU-KOSPO CFB Research Centre in collaboration with Korea Southern Power Company (KOSPO). Appointed as a POSCO Affiliated Professor in recognition of his research in steel technologies .in 2015, Professor Chung-Hwan is also the technical advisor to multiple Korean energy companies