2026 IERE-KEPCO Seoul Energy Equation Workshop
Seoul, South Korea
May 19–22, 2026

Low-Carbon Molecules at EnBW R&D: Key Activities 2026 for a Sustainable Future

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Keywords: *hydrogen, Ammonia, cracker, electrolyzer, carbon capture, pilot, research, biomass*

Abstract
Germany's natural gas demand will increasingly need to be met by low-carbon molecules. This is particularly important for the energy sector and for the generation of dispatchable power. Green or blue hydrogen, alternative fuels such as ammonia as hydrogen carriers, and carbon capture technologies – especially in combination with biogenic sources – play a key role in achieving the strategic goals of EnBW Energie Baden-Württemberg AG and are currently a major focus of our research and development activities.

But how can low-carbon molecules be supplied? What is the current state of technology for these solutions, and which innovative approaches offer additional potential? How can a research idea be developed all the way to commercialization? And how can these technical solutions not only contribute to climate protection but also ensure affordability and, in particular, security of supply for Germany?

We are currently addressing these questions in close collaboration with our operational units. Our goal is to better understand and evaluate new technologies with potential for the energy industry through pilot and demonstration projects. This presentation provides an overview of selected ongoing R&D projects at EnBW Energie Baden-Württemberg AG in the field of low-carbon molecules and highlights the key strategic focus areas for this year.