

High-Temperature Nuclear Bodes Well for Hydrogen in China: BNEF  
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By Hanyang Wei

(BloombergNEF) -- China Huaneng Group announced earlier this week that its high-temperature gas-cooled reactor (HTGR) for nuclear power is ready for operation. This fourth-generation innovation could help herald a hydrogen economy in China. Located in Shidao Bay, Shandong, the demonstration project has a capacity of 200 megawatts, smaller than a typical 1,000MW nuclear power plant. The module doesn't require water for cooling, providing greater flexibility for coastal, urban, factory and even inland applications such as in deserts. High-temperature steam from this type of nuclear unit can be used to produce hydrogen via a thermal-chemical process, which is more efficient than traditional electrolysis. The world's largest steel maker, Baowu, has worked with Tsinghua University since 2019 to design a larger 600MW HTGR to produce hydrogen for steelmaking. China Huaneng's project may operate formally soon, but BloombergNEF expects it may take another decade of research and development before HTGR can be widely deployed in China and other countries.

For more BNEF analysis on this topic, see here

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