

2024 Summit between Taipower and Bloomberg New Energy Finance (BNEF)

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Taiwan Power Company (TPC) co-hosted the “2024 Summit” with Bloomberg New Energy Finance (BNEF) on August 13, 2024. Deputy General Manager Pu of TPRI chaired the summit, attended by Vice President Wu and 20 executives. BNEF’s Head of APAC Research, Dr. Ali Izadi, shared insights on global energy markets, technologies, and decarbonization.

Key takeaways include:

1. **Global Energy Transition Acceleration:** In 2023, global energy transition investments hit a record \$1.8 trillion, a 17% increase from 2022. Electrified transportation led with \$634 billion, overtaking renewable energy for the first time. Renewable energy investments grew by 8% to \$623 billion, while energy storage investments rose 76%, reaching \$36 billion. Hydrogen investments tripled to \$10 billion, and carbon capture and storage (CCS) saw a nearly twofold increase to \$11 billion. These trends highlight the accelerating pace of the global shift towards clean energy technologies and infrastructure.
2. **Current State of Energy Transition in Asia:** Japan and South Korea face challenges in meeting energy transition goals. Due to land and infrastructure constraints, Japan’s 2030 renewable energy and carbon reduction targets seem out of reach. BNEF estimates Japan’s 2030 carbon emissions could reach 287 million tons, exceeding the target of 219 million. South Korea’s 2023 energy transition investment was only \$2.5 billion, with renewable energy growth falling short.

Both countries must intensify efforts to achieve their 2050 net-zero targets, with South Korea considering importing clean ammonia to meet its goals.

3. **Hydrogen Energy Development Prospects:** Global hydrogen investments reached \$33.9 billion in 2023, tripling from 2022. However, clean hydrogen production is expected to reach only 16.4 million tons by 2030, about half the demand for governments’ targets. Of announced projects, just 5% have reached the final investment decision (FID), and 12% had supply contracts. Hydrogen is currently used in traditional industries like petrochemicals and steel, though future power generation and industry applications are being explored. Hydrogen remains a promising element in the global energy transition.
4. **Grid Investment and AI Applications:** As renewable energy grows, global grid infrastructure investments are projected to reach \$400 billion annually by 2040. These upgrades are necessary to support renewable energy and energy storage integration. The AI application in grid management is becoming more prevalent, enhancing electricity demand flexibility. However, using AI potentially increases energy demand by 20% to 30%. With the rise of electric vehicles and data centers, BNEF forecasts electricity demand will triple by 2050, requiring significant investments to ensure grid efficiency and flexibility.

BNEF recommended that TPC tailor a cost

model, research policies, and market influences. Balancing energy transition with economic development and implementing effective electricity

pricing mechanisms are crucial. BNEF pledged to share the experiences of other power companies to support TPC's transition.



The 2024 Summit between Taipower and BNEF was chaired by Deputy General Manager Pu of TPRI (left of the back row). Vice President Wu was in attendance (right of the back row); around 20 people from relevant units attended the meeting.



BNEF's Head of APAC Research, Dr. Ali Izadi (second from the right), shared the latest insights into the global electric market, energy technologies, and decarbonization strategies.