

Beta test results on the integrity and reliability

of the ERR system

August 2023 (summary description)

Beta test results of the ERR system - summary description

We developed the ERR system to allow for large-scale electrical energy production, as evidenced by a beta test that was successfully completed at a small hydroelectric power plant (Korea Midland Power).

The beta test included evaluations on the integrity and reliability of the ERR system, and was assessed for 2.5 years upon installation. A beta test was conducted in the primary power line environment to determine i) if its operation had any impact on the power plant and primary power line and ii) if the electricity generation capacity met our predicted capacity.

Summary of the results is as follows.

- i) Impact of the ERR System on the power plant performance: no impact on the power plant performance.
- ii) Primary power line temperature test: no impact on the primary power line by the ERR System.
- iii) Impact of the ERR System on power quality: the power quality is normal, no distortion on waves of active and inactive power, power factor, and apparent electric power. While a voltage drop and a current phase shift were observed, the data measured from these particular instances demonstrated to be within a tolerable range.
- iv) The ERR system using primary power lines at a power plant has demonstrated to generate more electricity than the initial predicted capacity.

These favorable results were possible with our unprecedented, patented technologies (high-power ring cores manufacturing and power-focusing technologies).