



# **Case Study**

Rehlko's Partnership with Coastal Power, Inc. for Data Center Power Solutions in South Korea



### **Scope of Supply**Master control panel



## **Customer**IT Service provider



#### **Power Generator**

4 units x KD3250-UE Phase 1 4 units x KD3250-UE Phase 2

Coastal Power, Inc., a trusted provider of turnkey diesel generator solutions, was chosen by a multinational IT services provider company in South Korea to provide a comprehensive power backup solution for their data center. Given the data center's critical role in supporting high-performance computing, the client needed a robust and reliable control system in place to ensure uninterrupted operations. To address this, Coastal Power supplied four KD3250-UE diesel generator sets in each project phase, engineering a base solution that met the client's precise specifications.



#### **Challenges Faced**

#### 1. Seamless Integration with Multiple Power Grids

First, the client required a power system that could seamlessly operate in parallel with both a main power grid and a redundant grid. This functionality was crucial for ensuring minimal risk of power interruptions and maintaining uninterrupted data center operations.

**Solution:** Rehlko developed a highly customized Master Control Panel (MCP) specifically designed to manage this complex requirement. The MCP enabled seamless paralleling between the generator sets and the two power grids, ensuring automatic switching between the main and backup power sources without disruption. This enhanced the system's resilience, allowing the data center to continue operations even during power grid failures.

### 2. Evolving Specifications and Tight Deadlines

A significant challenge was the project's evolving requirements, particularly regarding the specifications for genset ratings and control panel functionality. The frequent adjustments required quick responses and flexibility from the Rehlko team, who had to implement design and programming changes at short notice.

**Solution:** Rehlko maintained close communication with Coastal Power and the client throughout the project. This ensured swift and effective responses to each change, with the design and programming modified to meet the updated specifications. Demonstrating their commitment to customer support, Rehlko also dispatched a design engineer and a commissioning engineer to provide on-site assistance and adjust the program during testing phases. This proactive approach kept the project on track and aligned with the client's expectations.

#### 3. Integration with Third-Party Systems

The client also needed the system to integrate seamlessly with a third party's Closed Transition Transfer System (CTTS), adding another layer of complexity. This integration required precise coordination between the different systems from separate vendors.

**Solution:** The Rehlko engineering team collaborated closely with Coastal Power and the client to design an MCP capable of communicating effectively with the third-party CTTS. This ensured that the generator power would activate without interruption, maintaining continuous data center operations during power outages. The successful integration of these systems enhanced overall system reliability and performance.







Coastal Power, Inc. was established in 1987, they are recognized as a market leader in Korea and a turnkey solutions supplier for diesel generator set systems from the design stage to installation, commissioning, and after–service.

They have extensive experience with multiunit large capacity installations, including generator paralleling and utility paralleling applications. Their service team can be reached 24/7 and are committed to actively responding to the customers' service requirements.

#### The Results: Enhanced System Resilience and Industry Leadership

The implementation of Rehlko's MCP and high-quality generator sets led to a robust and dependable power backup solution for the data center. The project was completed on schedule, meeting all client requirements and providing a reliable power system capable of supporting the data center's critical functions.

Crucially, the success of this project reinforced Coastal Power's position as a market leader in South Korea and showcased Rehlko's expertise in delivering tailored, high-quality solutions for critical infrastructure. This achievement not only enhances the prospects for securing the next phase of the project but also establishes Rehlko as a strong contender for future data center opportunities in South Korea. With both companies positioned for continued growth, they are well-equipped to deliver reliable, innovative power solutions across various industries.

At Rehlko, we're committed to delivering innovative, high-quality solutions for critical infrastructure needs. <u>Visit our website</u> today to discover how we can support your power and control system requirements.