



InterContinental Hotel in Singapore adopts digital distribution transformers from Hitachi ABB Power Grids

A hotel-stay can make or break a trip leaving lasting memories. Hotels, therefore, strive hard to ensure their guests have the highest level of comfort and service quality to make their stay pleasant. One of the essential elements in ensuring this is a reliable and consistent supply of electricity. It is the distribution transformers located at the hotel that route electricity for various applications in the hotel. Setting up the right electric infrastructure and maintaining its efficiency is critical for the hotel management to prevent power outage and reduce operating expenses.

The InterContinental® Hotel in Singapore has been a winner of multiple awards for surpassing customer expectations due

to its outstanding hospitality and high comforts level. When they consulted I2R Consulting and Engineering Services for an upgrade to their electric infrastructure with new transformers, they wanted to be future-ready.

As global leaders of transformers and long-term partners of I2R, Hitachi ABB Power Grids recommended the optimum solution for the InterContinental Hotel – the TXpert™ Enabled Dry distribution transformer.

The TXpert™ Enabled digital transformer is a part of the TXpert™ ecosystem for the digitalization of transformers from Hitachi ABB Power Grids. This ecosystem is open, scalable, and manufacturer-ag-

nostic, with a complete suite of products, software, services, and solutions.

Leveraging the data and intelligence collected by an array of onboard sensors and processed by a powerful suite of analytics, InterContinental Hotel at Singapore will be able to implement data-driven asset management of its distribution transformers.

A detailed study was undertaken by the team at Hitachi ABB Power Grids to estimate the benefits of TXpert™ Enabled transformer for the hotel over the traditionally assumed 20-year lifespan with standard operating conditions. Based on the study, the TXpert™ Enabled transformers are expected to have a reduced

failure rate by about 40 % and an increased life expectancy of up to 50 %. Additionally, its book value would double at the end of 20 years*.

In addition, the actionable intelligence delivered by this transformer will allow the O&M staff of the hotel to perform condition-based maintenance instead of time-based maintenance and optimize their operations, reducing routine maintenance costs by 50 %.

Above all, with the dry transformer technology, there is no risk of oil-leakage and no need for additional fire-suppression systems. The hotel staff can conduct the required maintenance activities with greater ease and safety and with no danger to the environment.

*Assuming standard lifetime as 20 years

Jean Carlos Leicht

Eng. Jean Carlos Leicht graduated in Electrical Engineering, MBA in Strategic Business Management, and MBA in Industrial Management.

He has over 15 years of experience working with Distribution and Power Transformers, which includes Electrical Design Engineering, before moving into Sales & Marketing and Application Engineering with a focus on energy efficiency, renewable energy, data centers, and specialty transformers. He has held local and international management positions for the last 10 years.

He has been working in the Transformer Business Unit for 15 years and currently is HUB APMEA Application Engineering Manager supporting Asia Pacific, Middle East, and African countries.

Based on the hotel's standard operating conditions, the asset is expected to see a drop of 40 % in failure rate and increased life extension by up to 50 %



a)



b)

a) TXpert™ Enabled Transformer installed at InterContinental® Hotel in Singapore
b) Interface of TXpert™ Dashboard

Leveraging the data collected by multiple sensors, InterContinental Hotel at Singapore will be able to implement data-driven asset management of its distribution transformers

Benefits of TXpert™ Enabled transformer

40%

Reduction in the failure rate

50%

Increase in the lifespan of the transformer

100%

Increase in book value of transformer at the end of 20 years