

**FIVE HOLDINGS**

*Development / Hospitality*

# **SUSTAINABLE AND GREEN BUILDING MANAGEMENT**

Through extensive investment in building technology, operational excellence, and sustainability consciousness, FIVE has achieved Green Building Certifications across the world's leading standards. This notably includes the US Green Building Council - all of FIVE's operational hotels are certified LEED Platinum. It also includes UL's SPIRE Smart Building Rating - FIVE's Dubai hotels are the first hotels in the world to earn SPIRE ratings at 3 Stars each. In 2023, FIVE's Dubai hotels received the Dubai Land Department's (DLD) highest green sustainability building rating at 4 Star Plus.

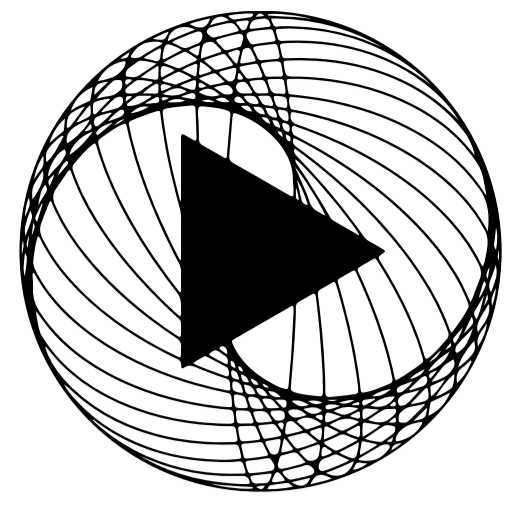
FIVE's comprehensive suite of green building certifications are more than accolades; they validate the company's strategic measures to reduce environmental impact, manage energy and water use, provide secure digital connectivity, and ensure health, safety and wellbeing. More than the environment, green buildings at FIVE promise robust social measures to cultivate health, safety and connectivity. From its operational management level, FIVE is certified to ISO Standards across the following building management systems.

- Quality Management System (ISO 9001:2015)
- Environmental Management System (ISO 14001:2015)
- Energy Management System (ISO 50001:2018)
- Food Safety Management System (ISO 22000:2018)
- Information Management System (ISO 27001:2013)
- Occupational Health and Safety Management System (ISO 45001:2018)

Within its renewable energy strategy, FIVE's hotels include on-site solar projects ranging from water heating to complete and integrated net-zero electricity building designs. Within the realm of renewable energy certificates and green power purchases, FIVE has become the first hotels in the UAE to achieve International Renewable Energy Certification (I-REC). FIVE's solar power agreement with DEWA (Dubai Electricity and Water Authority) has provided 100% renewable energy for its two hotels' electricity consumption for 2022.

All FIVE hotels are powered with the building maintenance system from BMTS named ENVision for BACtalk. The entire HVAC, plumbing system and specific electrical systems can be controlled on through this.

The below mentioned are the domains covered by the system.



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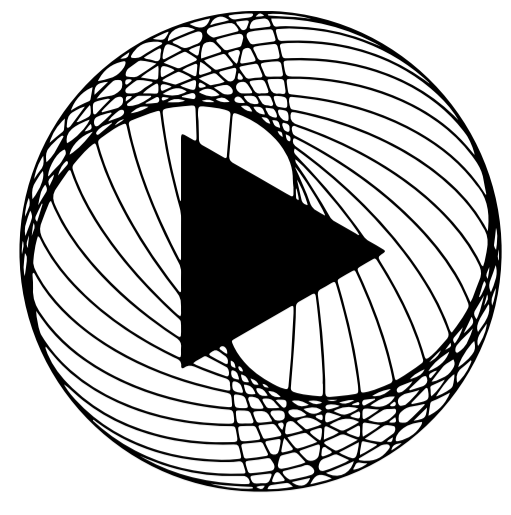
- 1 The HVAC system** of FIVE has always focused on ensuring sustainable and efficient energy usage. The Chilled water system, AHUs, and MAUs installed in the hotel regulates temperature and humidity levels, thereby ensuring the comfort of guests while minimizing energy consumption. The Kitchen System is designed to efficiently manage heat, smoke, and odor generated by the kitchen, and improving the indoor air quality of the hotel. The LPF and SPF summary and MAF/SMEF system in the hotel has also contributed in reducing energy consumption by controlling and optimizing airflow in different areas of the hotel. Additionally, the Car Park Vent Sys and Extract Air Fans prevents the buildup of harmful gases and odors in the basement levels of the hotel and indoor air quality is maintained.
- 2 The Plumbing system** at FIVE includes the use of solar water heater and calorifier in the HWS system to reduce the energy consumption required to heat water, thereby decreasing the carbon footprint of the hotel. Also, the use of grease interceptor in the plumbing system prevents the contamination of water and the clogging of pipes, thus reducing the need for chemicals and energy to clean them. The implementation of greywater system for reusing non-potable water conserves freshwater.
- 3** The installation of LED lighting and energy-efficient appliances in the FIVE hotels ensures that the Electrical system of hotel is contributing to sustainability. The electrical system, including solar water calorifiers and central battery systems, helps reduce the hotel's reliance on non-renewable energy sources. All the hotels of FIVE uses smart energy management systems to optimize energy consumption by automatically adjusting the temperature and lighting in different areas of the hotel based on occupancy and time of day.

## **External Lighting System at FIVE**

As a part of Energy Management, the hotel is concentrating on the automation of the entire façade and garden lighting system. The lighting systems are working in such a way as that based on the climatic conditions, the glow will be controlled. The lights will be controlled and monitored through the central monitoring system.

Entire External Lights are facilitated with LED light and fixtures. The External Lights are working based on the operational requirements.

As a part of encouraging the usage of natural resources, the hotel lobby, balconies, ballroom, meeting spaces and pre function areas will remain free from the usage of lights during the daytime.



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## **Back of The House and Car Parking Lighting System**

The BOH for the hotel is fully powered with the motion sensors and even the service corridors as well is covered under the range. The motion sensors ensure the energy savings up to 80% and based on the mobility, the device will control the lighting under its designated area.

The below sections are covered with the sensors.

- Hotel Service Corridors
- Hotel Service Lift Landing Areas
- Back of the House
- Plant rooms
- Basement 1 and Basement 2

The Rest all areas are controlled with Lighting Switches

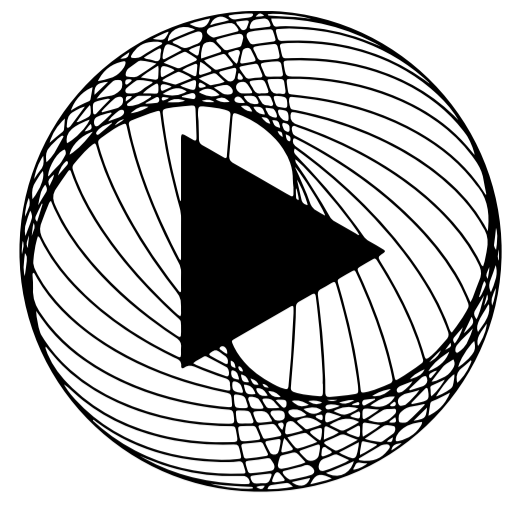
## **Air Quality Testing**

Indoor air quality monitoring and microbiological air quality monitoring is regularly conducted at FIVE by third party representatives to ensure the air quality is maintained in the hotel.

Air Duct cleaning is being done by third party to ensure improved health, good air quality, a cleaner home and saving the energy and ultimately maintaining HVAC system.

The parameters tested are – temperature, relative humidity, oxygen, carbon dioxide, carbon monoxide, nitrogen dioxide, Sulphur dioxide, formaldehyde, informal dust, total bacterial count, yeast and mould count.

The indoor air quality is always found to be satisfactory and all the parameters tested are found to be within limits.



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## **Irrigation Control System**

Irrigation Control System of FIVE Hotel played a key role in promoting sustainability by efficiently managing and controlling the flow of water. The system reduced water consumption and promoted the efficient use of water resources. By the installation of Irrigation Control Panel, Irrigation Pump, Irrigation Pump Control Panel, and Irrigation Water Meter, the hotel has been successfully controlling the amount of water and ensuring that only the necessary amount is being utilized to promote the long-term sustainability of the hotel.

 **FIVE Energy Efficiency Strategy.Pdf**

 **ISO - 50001:2018.Pdf**

 **ISO - 9001:2015.Pdf**

 **ISO - 14001:2015.Pdf**

 **ISO - 27001:2013.Pdf**

 **ISO - 22000:2018-FPJ.Pdf**

 **ISO - 22000:2018-FJV.Pdf**

 **ISO - 45001:2018.Pdf**

 **SPIRE RATING FIVE Palm Jumeirah.Pdf**

 **SPIRE RATING FIVE Jumeirah Village**

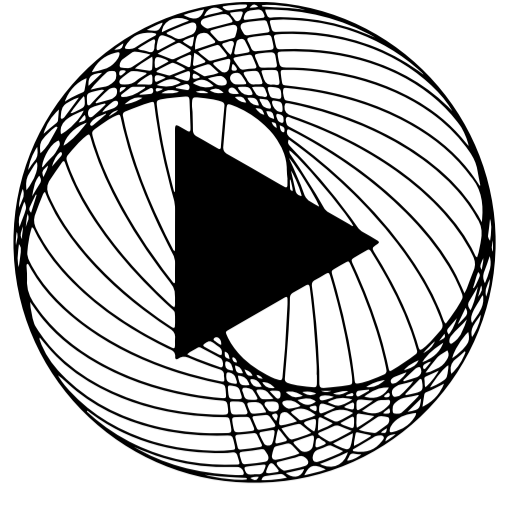
 **LEED PLATINUM CERTIFICATE FIVE Palm Jumeirah.Pdf**

 **LEED PLATINUM CERTIFICATE FIVE Jumeirah Village.Pdf**

 **LEED PLATINUM CERTIFICATE FIVE Zurich.Pdf**

 **DLD 4 Star+ - FIVE Palm Jumeirah.Pdf**

 **DLD 4 Star+ - FIVE Jumeirah Village.Pdf**



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 **IREC Certificate FIVE Palm.Pdf**

 **IREC Certificate FIVE JVC.Pdf**

 **Site Location And Sustainable Transport Policy.Pdf**

