

## Press Information



### **Innovative Lighting Drives Significant Architectural Achievement**

*Enfis Technology Delivers Visionary Lighting Solution for Iconic Structure in Abu Dhabi*

**Swansea, United Kingdom** – (1 November 2009) – It's brand new. It can be seen from miles around. It's an architectural landmark that embodies key influences and inspirations from ancient Islamic art and traditions, melded with the artistry and geometries associated with speed, movement and spectacle. Its visual impact is all made possible by leading-edge LED technology.

It's the Yas Hotel, a 500-room, 85,000-square-meter complex recently completed by Aldar Properties PJSC, Abu Dhabi's leading property development, management and investment company; just in time for the inaugural 2009 Formula 1 Etihad Airways Abu Dhabi Grand Prix which has just taken place from 30 October to 1 November. And it's a study in how the marriage of ancient customs and a cutting-edge technical partnership can create surprising and unique results. The Hotel is unique as the only hotel in the world with a race track running

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through its centre. The start of the inaugural F1 race on 1 November was re-scheduled to commence at dusk and finish in the dark in order to show the viewers of the Grand Prix the building's full potential.

The hotel's design was the brainchild of Asymptote Architecture, the New York-based architectural firm known for creating visionary building designs, master plans, and spatial experiments that challenge the traditional boundaries of architecture and integrate the potential of new technologies. The Yas Hotel truly embodies everything that is exciting about advanced contemporary design.

### **Impressive numbers**

Of architectural and engineering significance is the main feature of the project's design, a 217-meter expanse of sweeping, curvilinear forms constructed of steel and over 5,300 pivoting diamond-shaped glass panels which are illuminated via a sophisticated LED lighting system from Enfis Group Plc, providing limitless shades and colors. This grid-shell component gives the building an atmospheric-like veil that contains two hotel towers and a link bridge constructed as a monocoque sculpted steel object passing above the Formula 1 track that makes its way through the building complex.

From the outside, the Enfis LED color changing shroud can be seen for miles around. It visually connects and fuses the entire hotel, racetrack and marina complex while producing optical effects and spectral reflections that play against the surrounding sky, sea and desert landscape. The architecture as a whole "performs" as both an environmentally responsive solution as well as an architecture of spectacle and event. The entire jewel-like composition of the project responds visually and tectonically to its environment to create a distinct and powerful sense of place as well as a breathtaking backdrop to the Formula 1 and other events that the building will celebrate in years to come. The Yas Hotel is designed to be a significant landmark destination on Yas Island for Abu Dhabi and the UAE at large.

### **Enfis – quality assured**

The desert climate of Abu Dhabi can reach 60 °C in the summertime making havoc out of just about every form of light source – incandescent or LED. Enfis technology solved this problem

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almost immediately. The Enfis array/driver solutions were the only systems that passed the rigorous environmental chamber trials.”

Extensive testing confirmed that the Enfis array/driver solutions actually exceeded the light output specification necessary to operate at these extreme ambient temperatures. Furthermore, Enfis SMART driver and LED array technology also offered:

- a) the ability to control each LED array, setting them to any desired color within a 4.2 billion color palette;
- b) two-way communication with each driver/array combination via Enfis software providing real-time monitoring of fixture temperature, CCT and energy consumption; and
- c) Remote Desk Management (RDM) DMX capabilities.

A total of 208,800 LEDs were used on the project making it one of the largest LED projects in the world.

The team saw off competition from some of the world’s largest lighting enterprises by handling the technical demands of the project.

Enfis specializes in super-bright solid-state LED lighting arrays that allow for optimum light output and extraordinary heat management. Their products, which also allow for color variability and sleek, compact designs, have introduced LEDs to applications that were until recently only possible with traditional lighting sources.

“The result is a truly iconic structure that will be admired and enjoyed for generations to come. It really captures the whole essence of how to use solid-state LED lighting for achieving architectural excellence.”

In the end, over 5,850 Enfis LED arrays were used in the lighting design for the exterior environs of the Yas Hotel complex. The products consisted primarily of Enfis 4-channel UNO Plus arrays and control drivers integrated into custom designed IP65 rated stainless steel stanchions. The result is a testament to the quality and functionality of the Enfis product.

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### About Enfis

The Enfis Group Plc (LSE: ENF) designs, manufactures and markets intelligent, high-power, 'tunable' LED lighting with a focus on providing cutting-edge solutions that can be easily integrated into luminaires, fixtures and custom projects. The company's expertise covers semiconductor technology, packaging, thermal management, optics, electronic design, software and volume manufacturing.

Enfis 'smart' LED array technology offers luminaire and fixture manufacturers unsurpassed optical white light output. Their ultra-bright, multi-watt, multi-wavelength 'smart' LEDs are designed so that each wavelength can be individually controlled and monitored. Each Enfis 'smart' LED array has active color temperature and heat-sensing components that control, calibrate and regulate the light output of each wavelength on the array for the lifetime of the component.

More information about the company's LED products and solid-state lighting technologies can be found at [www.enfis.com](http://www.enfis.com).

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