

# Optimising Efficiency

## Availability & Efficiency

Interxion provides carrier-neutral colocation services to over 1,100 customers from 28 data centres in 11 countries across Europe, and uses significant amounts of energy. As long as there is no impact on availability, it is entirely in our and our customers' best interests, from a financial as well as an environmental perspective, to optimise the efficiency of our data centre design and operations, and to support the best efforts of our customers in this area.

## Measurement First

PUE is one of our key performance indicators (KPIs), and we have been measuring and optimising it since 2003, leading to year-on-year incremental improvements. We produce a monthly internal overview of energy efficiency covering all eleven country operations, enabling us to measure the effectiveness of all new initiatives. This facility-specific data is available on a confidential basis to customers and prospects on request.

## Modular Architecture

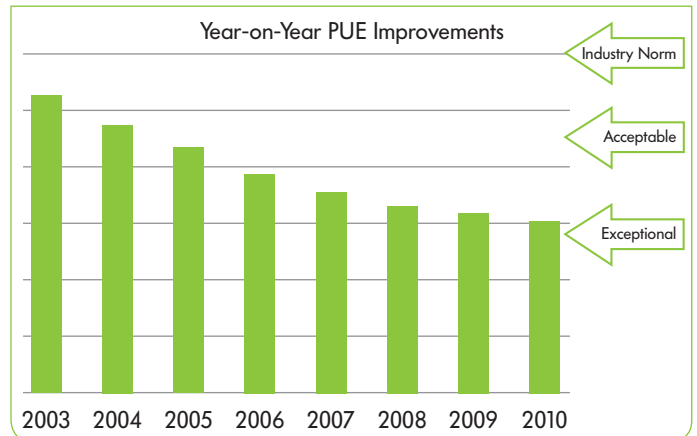
For over ten years, our core business has been the design, build and operation of innovative and highly efficient data centres. In 2000 we pioneered the modular approach to design, build and deployment. In effect, modular architecture allows us to match installed infrastructure capacity vs. IT load, which leads to a lower start-up PUE. The Interxion modular build-out approach also ensures business continuity in case a point of failure develops, and minimises energy waste during expansion.

## Continuous Improvement

Thanks to the modular approach Interxion has also been able to shorten its design and configuration R&D cycle, as every new build-out can take advantage of the latest equipment, techniques and design blueprints without any downtime. This principle of continuous improvement applies to existing facilities as well as new builds, as we implement rolling upgrades to our infrastructure across our whole footprint.

## Latest Components

Via our uniformly-applied Design & Engineering Requirements (DER) we make efficient procurement at the infrastructure level non-negotiable. For instance, free cooling has been installed in all new Interxion build-outs since 2006. By extension, we also always recommend the latest components and configurations to customers in order to maximise the availability of their equipment while optimising energy efficiency. And wherever practical we recycle waste heat and use natural cooling sources.



## Ongoing Activities

- Calculation of PUE in all data centres since 2003
- Monthly overview of energy-efficiency in all countries
- Non-negotiable energy efficient components in DER
- Energy metering and energy efficiency measurements available to all customers
- Closed loop energy and natural cooling wherever practical
- Proactive engagement on industry-wide energy efficiency issues including collaboration on development of metrics and voluntary Code of Conduct with The Green Grid, the Uptime Institute and the EC JRC
- Best practice downloads, events and on-the-spot advice on strategy and implementation

## Industry Action

We try to go a step further to encourage improved standards across the industry as a whole and support the energy efficiency ambitions of customers. We have collaborated at a high level with The Green Grid, The Uptime Institute and the European Commission Joint Research Centre on Sustainability to develop, test and agree the latest efficiency metrics and support the launch of the current voluntary Code of Conduct on Data Centre Energy Efficiency.

## Customer Support

As well as providing the latest advice on components, we provide customers with energy metering and energy-efficiency measurements on request, and have developed a range of detailed guidelines on optimising energy efficiency at the implementation stage. And our European Customer Service Centre and senior engineering teams are always ready to provide telephone, email or on-the-spot advice.

# Optimising Efficiency

Measurement	Status
• Establish monthly energy-efficiency reporting per data centre	Active ✓
• Provide customer energy metering and energy efficiency measurement on request	Active ✓
• Minimise energy waste by establishing six-monthly internal energy efficiency targets tied to performance	Active ✓
Design	
• Refine the Interxion modular build-out approach to ensure continuity and minimise energy waste during expansion	Since 2000
• Install free cooling as standard in all new build-outs	Since 2006
• Recommend the latest cooling, cabling and redundancy configurations in order to reduce power load while maintaining optimum service levels	Active ✓
• Closed loop design to recycle waste heat	Active ✓
• Natural cooling sources where practical	Active ✓
Procurement	
• Provide over 50% of power from renewable or low-carbon sources	Active ✓
• Use only the most energy-efficient components as defined in the Interxion Design & Engineering Requirements.	Active ✓
• Give preferred status to environmentally-friendly supplier organisations	Active ✓
Service	
• Provide energy-efficiency advice with all customer contracts	Active ✓
• Develop a range of innovative products and solutions to support customer energy-efficiency measurement and improvement in the following areas:	
• physical installation	Active ✓
• efficiency monitoring	Active ✓
• server management	Active ✓
• carbon offsetting	2011
Engagement	
• Take a leading role in all efficiency-focused industry organisations including; Uptime Institute; The Green Grid; EU Working Group for Code of Conduct	Active ✓
• Help to define and promote a practical energy efficiency rating system for European data centres	Active ✓
• Communicate regularly with customers and prospects on energy-efficiency issues and initiatives.	Active ✓

## Find out more

For more information, complementary downloads, and details of Interxion-sponsored energy efficiency events, please visit [www.interxion.com/sustainability](http://www.interxion.com/sustainability)

Email [sustainability@interxion.com](mailto:sustainability@interxion.com) or call the Interxion European Customer Service Centre on Tel: + 800 4687 9466 (+ 800 INTERXION) (toll free number)

## Accreditations & Associations



the green grid™  
member

Contributor Member,  
The Green Grid



Cofounder EMEA Chapter,  
Uptime Institute



Contributor, European  
Commission DG Joint  
Research Centre  
on Sustainability -  
developing Code of  
Conduct on Data Centre  
Energy Efficiency.



ISO27001 and BS25999  
for Information Security  
Management Systems  
and Business Continuity  
Management

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