

Practice to be assessed and included in the Guidelines

Number/code: OM/SM4

Title: SWITCHING MODES FOR SYSTEMS CONTROLLED BY BUILDING SERVICES MANAGEMENT

Guidelines section:

<input type="checkbox"/>	Governance	<input checked="" type="checkbox"/>	Operational management		
		<input type="checkbox"/>	<i>Context of the event</i>	<input type="checkbox"/>	<i>Procurement</i>
		<input type="checkbox"/>	<i>Event</i>	<input type="checkbox"/>	<i>Mobility and logistics</i>
		<input checked="" type="checkbox"/>	<i>Stadium management</i>	<input type="checkbox"/>	

Description:

- 1) In the stadium of Dresden, a timing analysis for events provided optimised control commands for building services management, including lighting modes, switching on / off of heat consumers, cooling systems and ventilation and air conditioning equipment.

- 2) In Mercedes Benz Arena in Shanghai, the arena’s operations team focused its efforts on how to maximize energy efficiency throughout the venue, which included installing a cloud-based energy management system that monitors real-time operational diagnostics, allowing the team to adjust energy schemes based on collected data. For example, the arena’s HVAC and lighting systems are now linked up to one computer program, allowing staff to adjust settings throughout the day, without much effort. “Our operations team can now set energy efficiency schemes throughout our venue and adjust these schemes through a centralized cloud hub location, minimizing the time and personnel needed to monitor our systems,” says David Hua, Mercedes-Benz Arena’s Deputy General Manager. Additionally, Mercedes-Benz Arena invested in 12 air curtain machines in its West Hall to improve indoor air quality and maximize energy efficiency to help stabilize temperatures within the venue.

- 3) Twickenham Stadium (rugby) commissioned a stadium-wide energy management system to help cope with energy distribution during peak times. It’s based on 250 new monitoring points. The improved Wi-Fi connectivity allows for power monitoring (e.g. quality, voltage, current and power factors at the ground, etc.) to maintain optimal energy usage.

Environmental benefits:

Reduction of 30.5 tonnes in CO2 emissions per year. Energy consumption is reduced by 665,000 kwh/year.

Economic benefits:

Energy costs for the opening season of the stadium can be reduced by up to 30% equal to financial savings of around 35,000 euros per year.

Applicability and replicability potential

The measure could be replicated in every stadium that adopts the same centralised system: the investment would be swiftly repaid thanks to the electricity lower consumption.

Source

[Women Football World Cup Germany 2011](#) (pag. 26)

[Twickenham Stadium \(rugby\)](#)

[Twickenham Stadium \(rugby\)](#)

[Mercedes Benz Shanghai](#) (p. 51)