PROPERTY MANAGEMENT
SOLUTIONS

Guideline for water-saving consumption devices

According to BREEAM In-Use version 6.0

PALLADIUM
OFFICES

Guideline for water-saving consumption devices
Document prepared for Palladium Offices, 1. Aug. 2023

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PROPERTY MANAGEMENT SOLUTIONS

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Property:	**Palladium Praha – Office Building**
Manager:	**Property Management Solutions s.r.o.**
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Status to:	**01. Aug. 2023**

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1 Introduction

Sustainability in buildings during operation

By 2050, the entire building sector must be climate neutral. A challenge for the entire construction and real estate industry. The potential that building operation has for achieving our climate protection goals is immense and requires a targeted, holistic, and yet building-specific approach.

This Guideline for water-saving consumption devices has been designed as a transformation and management tool to support building operators, occupants, and users in the development of a sustainable, future-proof and climate-protection-oriented real estate strategy. By systematically considering all relevant information about the building and its actual characteristics, the utilization situation and the actual consumption parameters, helps the system to create transparency and identify optimization potential. This minimizes risks and increases investment security. The certification can be used for entire portfolios and individual buildings, regardless of their type of use.

Palladium Praha is carrying out the certification of existing properties in accordance with the criteria of the BREEAM v6 system in existing properties for the implementation of a continuous improvement process in inventory management.

Within the framework of the BREEAM certification, this guideline has been drafted in order to make future procurement/management measures regarding water consumption equipment sustainable. The listed requirements are to be considered as a tool for the inventory holders and can contribute to an improvement of the certificate (in the context of a recertification) with documented implementation.

The evidence of implementation of the guideline must be submitted by the time of re-certification (3 years after initial certification). Details on the scope and documentation process are explained below.

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2 Water

This category promotes the sustainable use of water during building operation and on the property under consideration. It ensures that the building is designed to reduce potable water consumption (inside and outside the building) over the life of the building and minimizes losses due to leakage.

Sustainable water management is one of the topics highlighted in the UN Sustainable Development Goals (SDGs). Goal 6 (Clean Water and Sanitation) states that by 2030 we must "substantially increase water use efficiency in all sectors and ensure sustainable withdrawals and supplies of freshwater to address water scarcity and significantly reduce the number of people suffering from water scarcity".

Due to increasing population densities and high-water consumption, there is a global water scarcity that has the tendency to worsen in the long term, as water demand is expected to increase by 55% between 2000 and 2050. In addition, the energy required to extract, purify, deliver, heat/cool and dispose of water (and wastewater) contributes to climate change and air quality degradation. Reducing water consumption through more efficient use is therefore crucial to ensure sufficient supply to meet future demand and combat climate change.

2.1 Scope

This guideline contains requirements for the replacement of water-consuming appliances with water-saving appliances during renovations/refurbishment/maintenance.

2.2 Aim

The aim is to promote the use of products in the building and its outdoor facilities that lead to a reduction in water consumption and to create an awareness of the economical use of water amongst those involved in the building as well as users.

The guideline is to be used for direct procurement by the building management and for procurement by commissioned companies (contractors).

2.3 Requirement

When procuring water-saving fixtures and appliances, preference should be given to those specifically designed to reduce water consumption. Such devices aim to use water more efficiently without sacrificing comfort or performance. Here are some examples of water-saving taps:

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Tap/Device	Functionality	Benefit
Water flow regulator **for shower heads or taps** 	• Special insert for limiting the flow rate or mixing air **Requirements:** <u>Taps</u> 4,0 l/min (3/4 P) → EU Tax. ✓ <u>Showers</u> 6,0 l/min (4/4 P) → EU Tax. ✓	• Retrofitting possible • No loss of comfort
Automatic shut-off for **shower heads or taps** 	• Control of automatic self-closing via water pressure **Requirements:** <u>Taps</u> 4,0l/min (4/4 P) → EU Tax. ✓	• Low maintenance • Independent of power supply
Sensor or touch activated **taps** 	• Electronically controlled with infrared • Water only flows in the immediate vicinity of the body part **Requirements:** <u>Taps</u> 4,0l/min (4/4 P) → EU Tax. ✓	• Particularly hygienic due to contactlessness

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Toilet flushes **with button** 	• Manual operation of rinse settings • "Water saving button" for small operation **Requirements:** 6/3 l/Flush. (3/4 P) 5/2 l/Flush. (4/4 P) → EU Tax. ✓	• Proactive water saving by user • Retrofitting possible
Waterless/water-saving **Urinals** 	• Drainage through special design geometry • Use of a barrier liquid or liquid-permeable membrane **Requirements:** 1,2 l/Flush. (2/4 P) 1,0 l/Flush (2/4 P) → EU Tax. ✓ Waterless (4/4 P) → EU Tax. ✓ *(only e.g: for Shopping Center)*	• No water consumption
Household appliances: (Washing machine, Dishwasher) 	• Load sensor to ensure efficient cleaning through effective utilization • Water flow regulation via program selection and settings **Requirements:** <u>Washing machine</u> 40 l/Washing cycle <u>Dishwasher</u> 12 l/Program	• Commercially available

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Commercial (Washing machine, Dishwasher) 	• Water saving through load sensor to ensure efficient cleaning through effective utilization • Water flow regulation via program selection and settings • Energy-saving washing technology **Requirements:** Washing machine 7,5 l/kg Dishwasher 5,0 l/Dish rack	• Commercially available

3 Implementation

This guideline is valid for an unlimited period of time or is in force until it is replaced by the succeeding guideline. It should be implemented and demonstrated accordingly by the time of recertification.

With my signature, I confirm that I have understood the requirements of the guideline and intend to implement them in accordance with the requirements.

Bc. Linda Erebai
Palladium Centre Manager

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