

RULING: Allocation of Energy and Water used by Water Treatment Plants

1 Purpose and Principle

This ruling provides direction for allocating the energy and water used by a Water Treatment Plant (WTP) and distributing the benefit of using treated water.

Guidance is also provided for situations where one WTP is shared among several users.

2 Coverage

This ruling should be read in conjunction with the Rules and is applicable to:

- all buildings rateable under NABERS Energy, with the exception of office tenancy and data centres IT equipment ratings; and,
- all buildings rateable under NABERS Water

3 Determining the system location

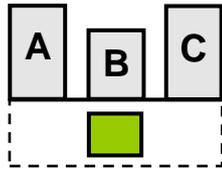
Determining the system's location is an important part of the assessment of water treatment systems, which determines the way these systems are treated under Section 5 *Treatment of energy and water*.

WTP's are either considered **onsite** or **offsite**.

A WTP is considered **onsite** when it is located within the physical boundaries of the building and/or its grounds (as per the title of the building) where the rating is being conducted. Otherwise, the WTP is considered as **offsite**.

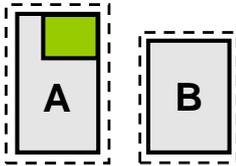
The following examples illustrate this with several common WTP arrangements.

Example	Treatment
	<p>The WTP is located within the physical boundaries of the building and its grounds.</p> <p>The WTP is considered onsite.</p>
	<p>The WTP is not located within the physical boundaries of the building.</p> <p>The WTP is considered offsite.</p>



Three buildings are supplied with a WTP which is located in a shared basement or plant room.

The WTP is considered **onsite** for all three buildings.



Two buildings are supplied by a WTP which is physically located in building A.

The WTP is considered **onsite** for Building A, and **offsite** for Building B.



The WTP is located within the legal boundaries of the site.

The WTP is considered **onsite**.

Ownership of the WTP is not considered in this definition. A WTP could be considered onsite even if the system is owned and operated by a different entity to the rated building.

4 Treatment of energy and water

4.1 Onsite systems

Onsite water treatment plants are considered a building central service. Their energy and mains water use is considered part of a NABERS rating.

Recycled water from an **onsite** WTP is considered to be onsite capture and recycling. It will improve a building's NABERS Water rating by reducing the amount of externally supplied water.

4.1.1 NABERS Energy

The energy used by an **onsite** WTP to treat and supply treated water is considered part of a rating's minimum energy coverage. This includes all ancillary energy such as pumping. This energy must be included in a NABERS Energy rating.

4.1.2 NABERS Water

The use of externally supplied water by an **onsite** WTP to treat and supply treated water is considered part of a rating's minimum water coverage. This water must be included in a NABERS Water rating.

All recycled water supplied by an **onsite** WTP to the rated premises is considered to be **onsite capture and recycling**.

4.1.3 Water treatment systems serving multiple users

Onsite WTPs can serve users that are not part of the NABERS Energy or Water rating, such as other buildings in the vicinity. The energy and externally supplied water from the WTP is allocated among users through the methodology provided in this section.

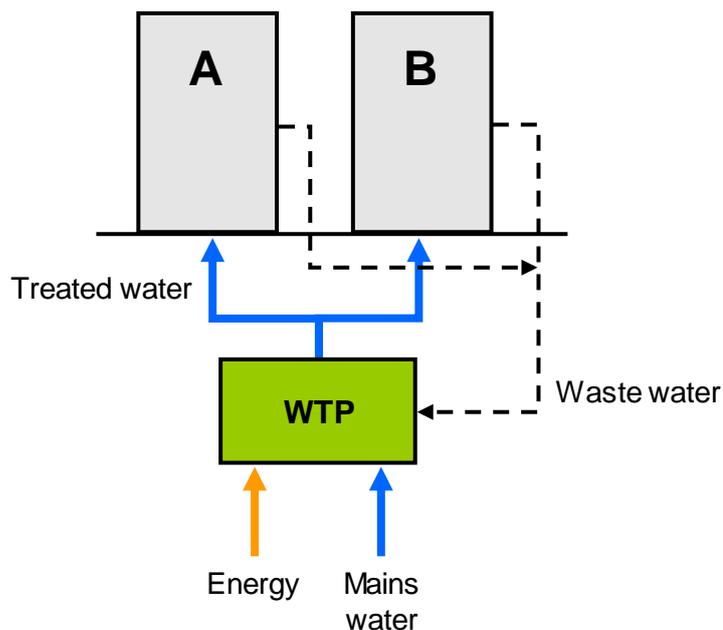
Where an **onsite** WTP services multiple buildings, the energy and externally supplied water used by the WTP may be apportioned among the buildings when:

- The WTP's energy and externally supplied water use was metered during the Rating Period; and
- The amount of treated water supplied to each building was metered during the Rating Period.

The energy and externally supplied water use of the WTP is apportioned to each building based on the proportion of treated water supplied to each building during the Rating Period. This is deemed to satisfy the standards for acceptable data under section 2.7 of the Rules.

If these conditions cannot be met, all energy and externally supplied water used by the WTP must be included in the NABERS Energy and Water rating.

Figure 1: Example – Water Treatment Plant (WTP) serving buildings A and B.



4.2 Offsite systems

Offsite WTPs are considered to be beyond the boundaries of the building. Their energy use is not considered part of a NABERS Energy rating.

Offsite WTPs can provide buildings with externally supplied recycled water. Assessors must clearly identify these water sources and determine whether they contain any non-recycled components.

4.2.1 NABERS Energy

The energy used by an **offsite** WTP is not considered part of a rating's minimum energy coverage. It does not need to be included in a NABERS Energy rating.

4.2.2 NABERS Water

All water supplied by an **offsite** WTP to the rated building is considered to be an external water source and must be included in a NABERS Water rating.

The recycled water component of this water supply is considered to be **Externally Supplied Recycled Water**, and should be identified as such in the rating. Any non-recycled component of this water supply must also be identified and included in the rating as standard water use.

WTP's may use externally supplied water as part of their processes so not all water produced by them is considered recycled. Assessors must check whether these externally supplied water sources contain any non-recycled water components.