



| v3 - LEED 2009

Minimum indoor plumbing fixture and fitting efficiency

WEp1 | Required

Glossary

Intent

To reduce indoor fixture and fitting water use within buildings to reduce the burdens on potable water supply and wastewater systems.

Requirements

Reduce potable water use of indoor plumbing fixtures and fittings to a level equal to or below the LEED 2009 for Existing Buildings: Operations & Maintenance baseline, calculated assuming 100% of the building's indoor plumbing fixtures and fittings meet the plumbing code requirements as stated in the 2006 editions of the Uniform Plumbing Code (UPC) or International Plumbing Code (IPC) pertaining to fixture and fitting performance [[Europe ACP: UPC-IPC Equivalent](#)] [[India ACP: UPC-IPC Equivalent](#)]. Fixtures and fittings included in the calculations for this credit are water closets, urinals, showerheads, faucets, faucet replacement aerators and metering faucets.

The LEED 2009 for Existing Buildings: Operations & Maintenance water use baseline is set depending on the year of substantial completion of the building's indoor plumbing system. Substantial completion is defined as either initial building construction or the last plumbing renovation of all or part of the building that included 100% retrofit of all plumbing fixtures and fittings as part of the renovation. Set the baseline as follows:

- For a plumbing system substantially completed in 1994 or later throughout the building, the baseline is 120% of the water use that would result if all fixtures met the codes cited above.
- For a plumbing system substantially completed before 1994 throughout the building, the baseline is 160% of the water use that would result if all fixtures met the codes cited above.

If indoor plumbing systems were substantially completed at different times (because the plumbing renovations occurred at different times in different parts of the building), Set a whole-building average baseline by prorating between the above limits. Prorate based on the proportion of plumbing fixtures installed during the plumbing renovations in each date period, as explained in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition. Pre-1994 buildings that have had only minor fixture retrofits (e.g., aerators, showerheads, flushing valves) but no plumbing renovations in or after 1994 may use the 160% baseline for the whole building.

Demonstrate fixture and fitting performance through calculations to compare the water use of the as installed fixtures and fittings with the use of UPC- or IPC-compliant fixtures and fittings, or alternatives for Europe and India as explained in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition [[Europe ACP: UPC-IPC Equivalent](#)].

Develop and implement a policy requiring economic assessment of conversion to high-performance plumbing fixtures and fittings as part of any future indoor plumbing renovation. The assessment must account for potential water supply and disposal cost savings and maintenance cost savings [[Europe ACP: UPC-IPC Equivalent](#)].

Alternative Compliance Paths (ACPs)

Europe ACP: UPC-IPC Equivalent

Projects in Europe may use the values defined by European Standards.



[LEED EBOM 2009 reference guide supplement with Europe ACPs](#)

India ACP: UPC-IPC Equivalent

Projects in India may use values defined by the 2011 UPC - India and the 2013 Green Plumbing Code Supplement - India.



[LEED 2009 EBOM reference guide supplement with India ACPs](#)

Credit substitution available

You may use the LEED v4 version of this credit on v2009 projects. For more information [check out this article](#).



[LEED 2009 EBOM reference guide supplement with India ACPs](#)