



CALIFORNIA ENERGY COMMISSION

2013 Building Energy Efficiency Standards Staff Workshop

Residential and Nonresidential
Reach Code Requirements
(voluntary energy efficiency Standards)

August 23, 2011
Bruce Wilcox

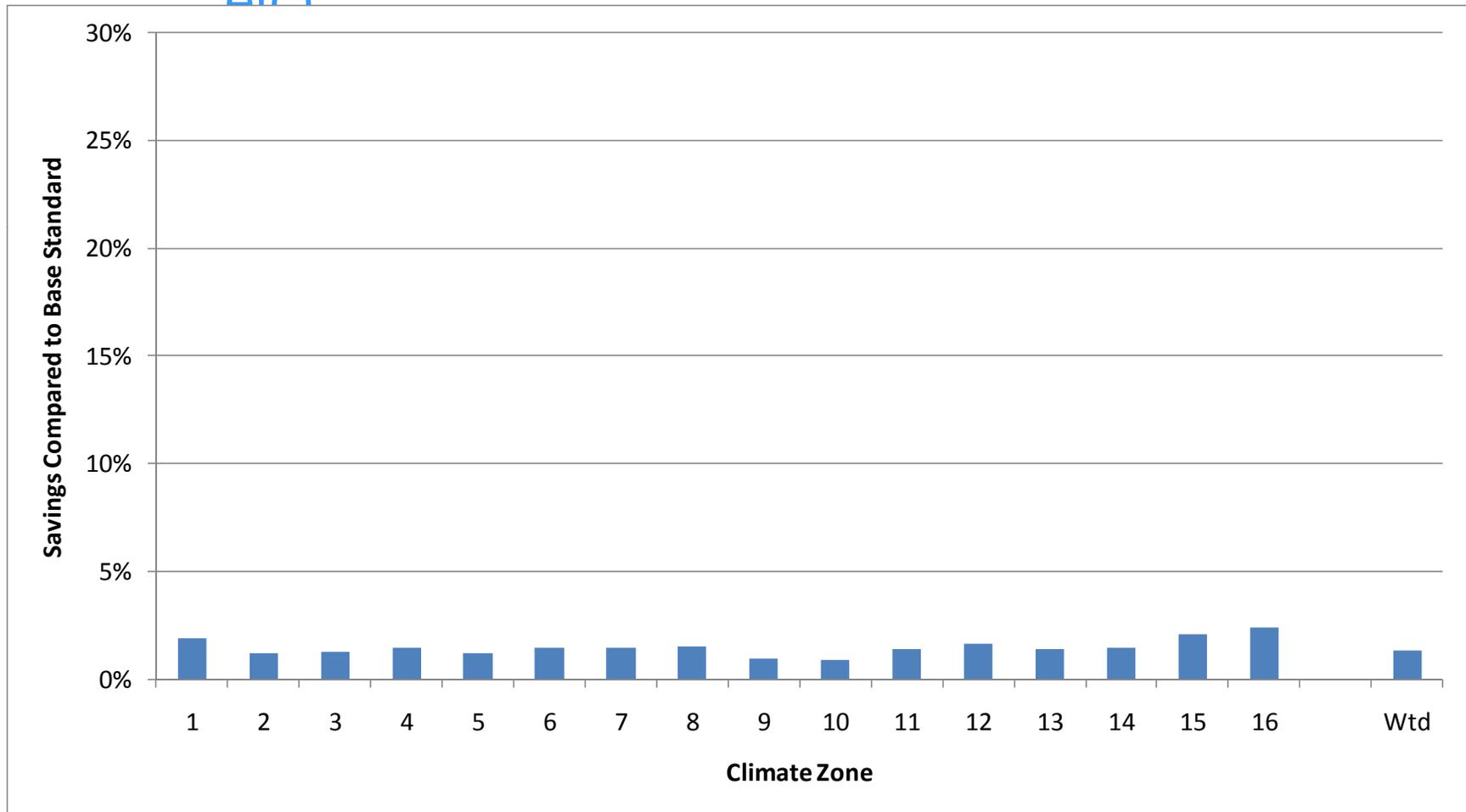


Agenda

- Example measures for residential reach code performance compliance to show Reach levels are reachable
- Many other measures not included here:
 - residential plug load controls
 - high efficiency appliances
 - Photovoltaic systems
- Nonresidential measures to be determined

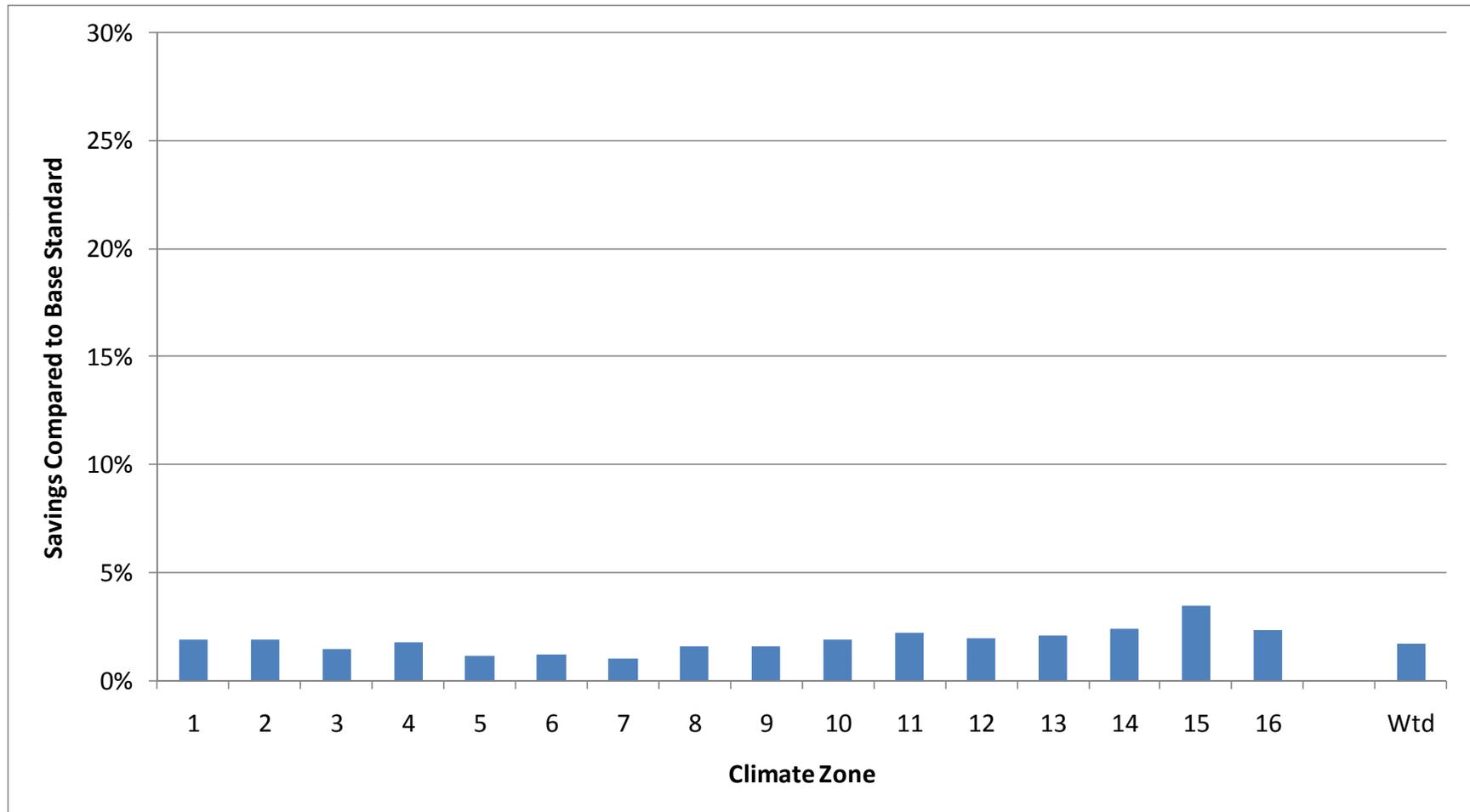


Upgrade Ceiling Insulation (R30>R38 etc)





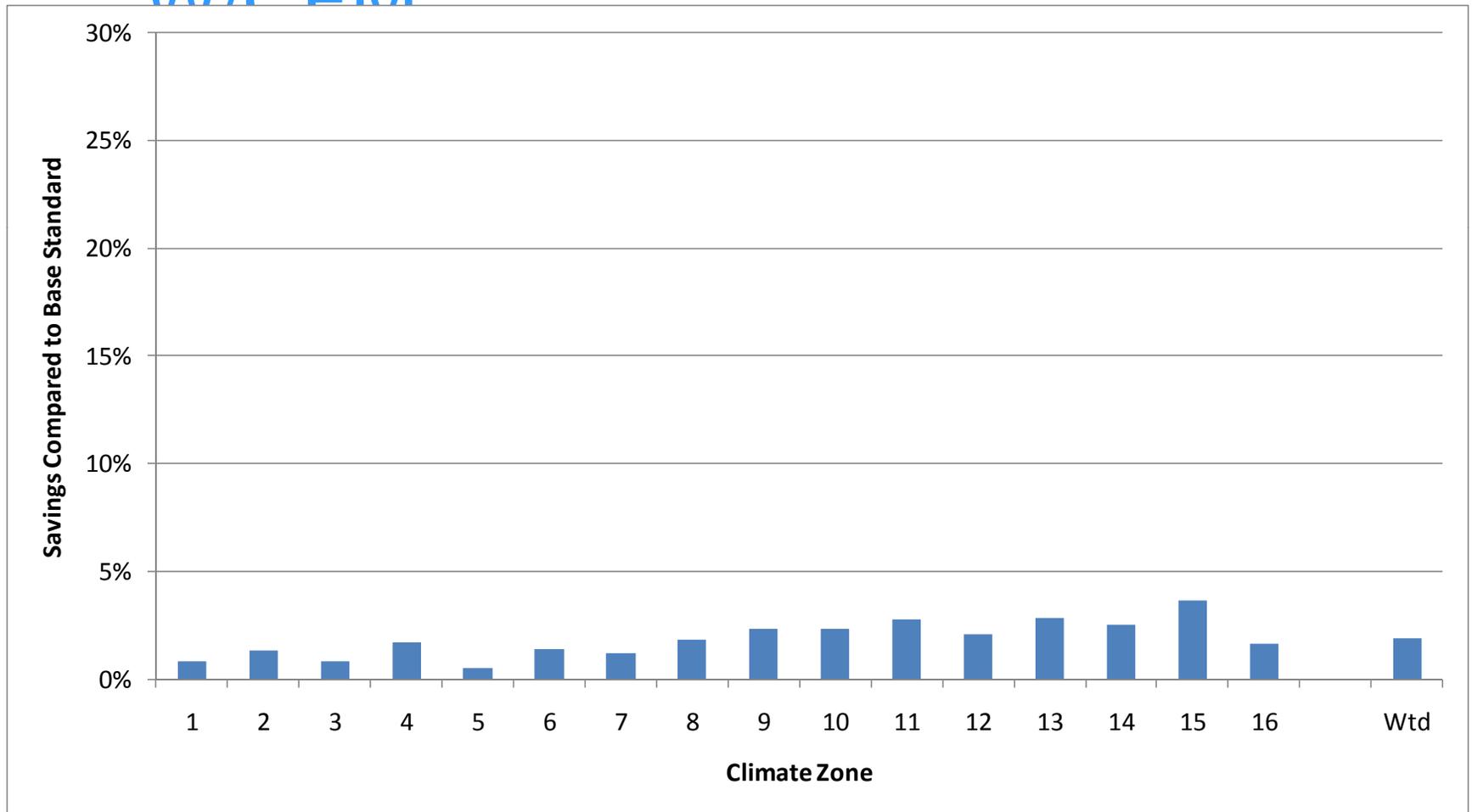
4% Duct Leakage (instead of 8%)



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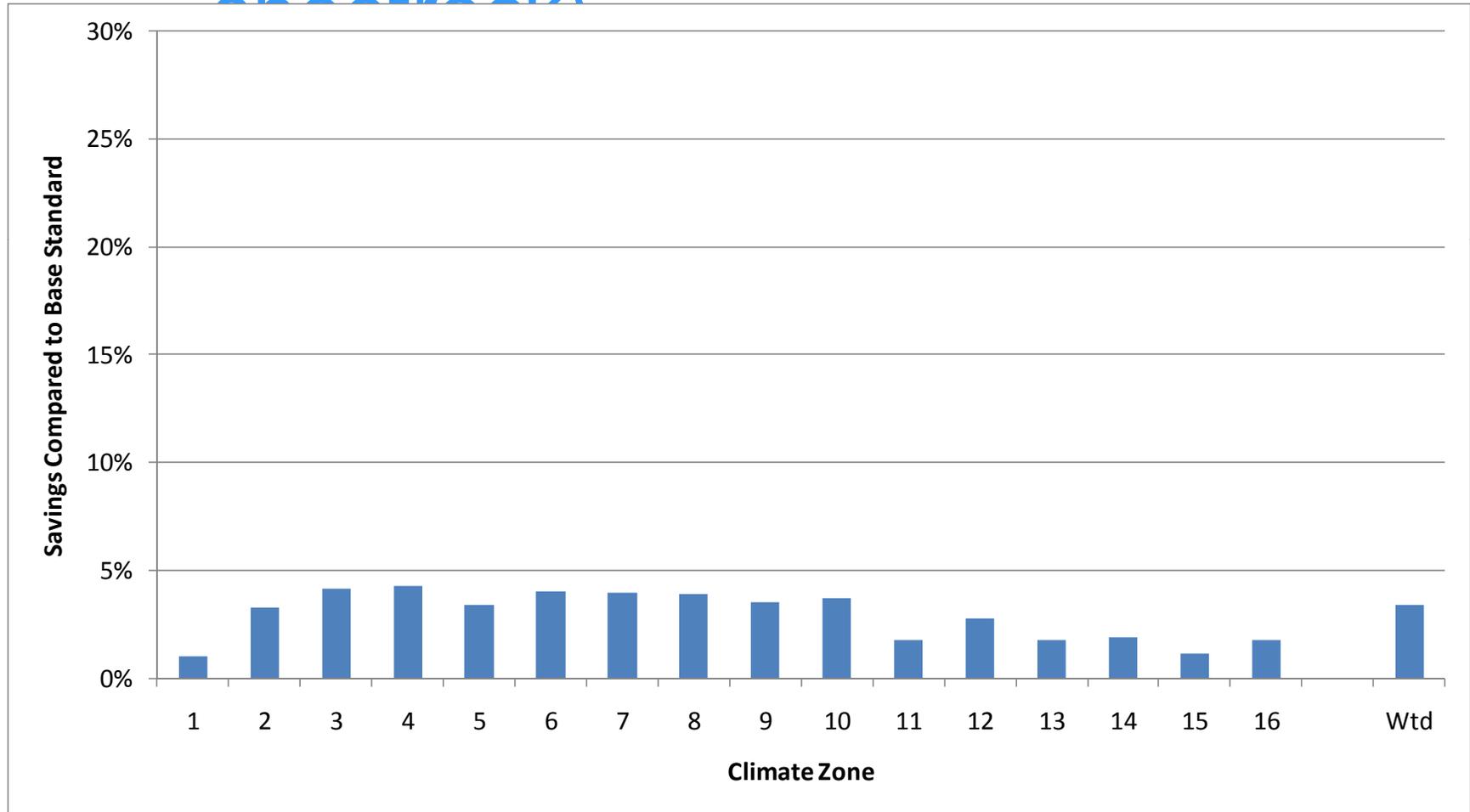


AC Air 450 CFM/ton and 0.45 W/CFM



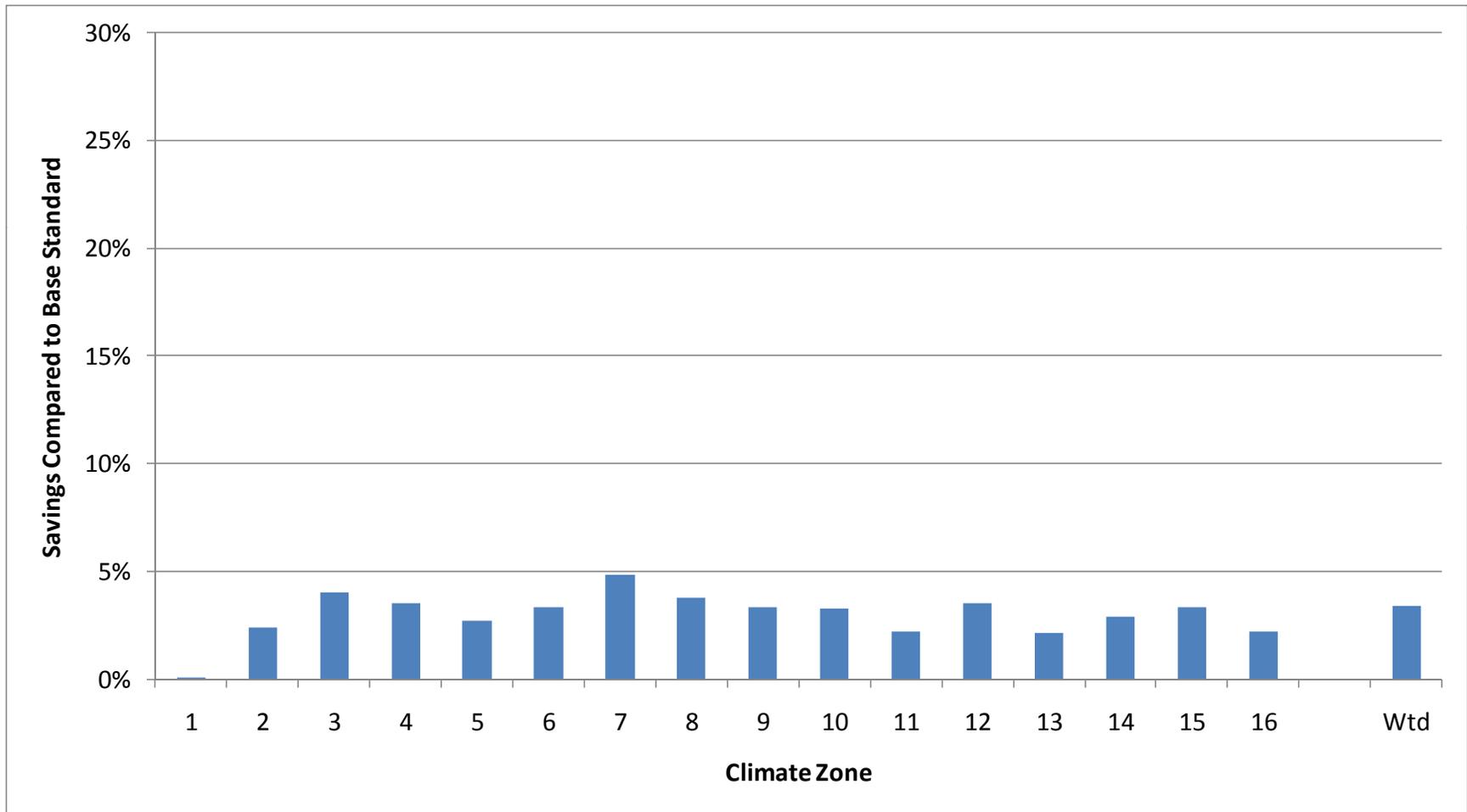


Increased Mass (double absorption)



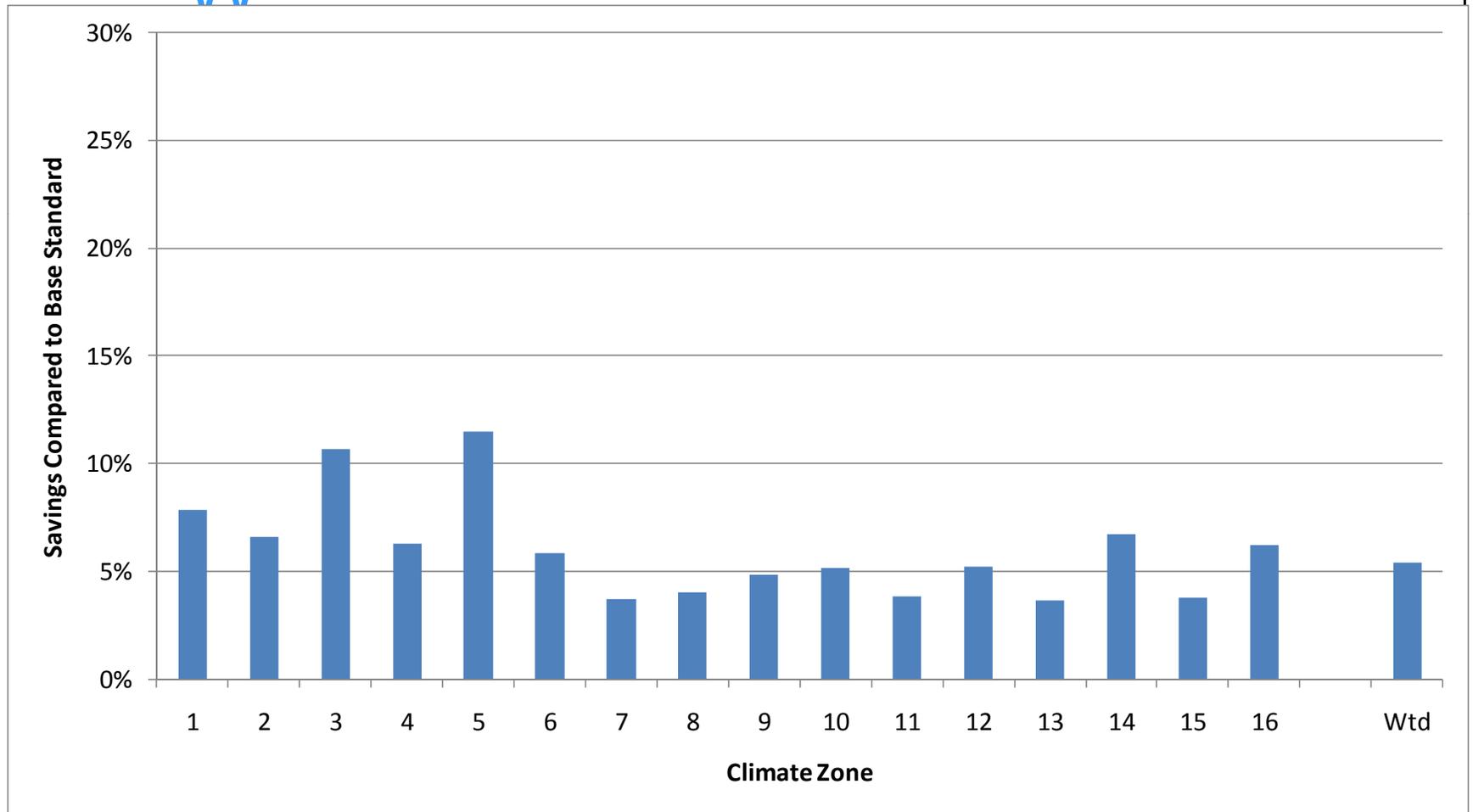


Glass 6% N, 6% E, 6% S, 2% W



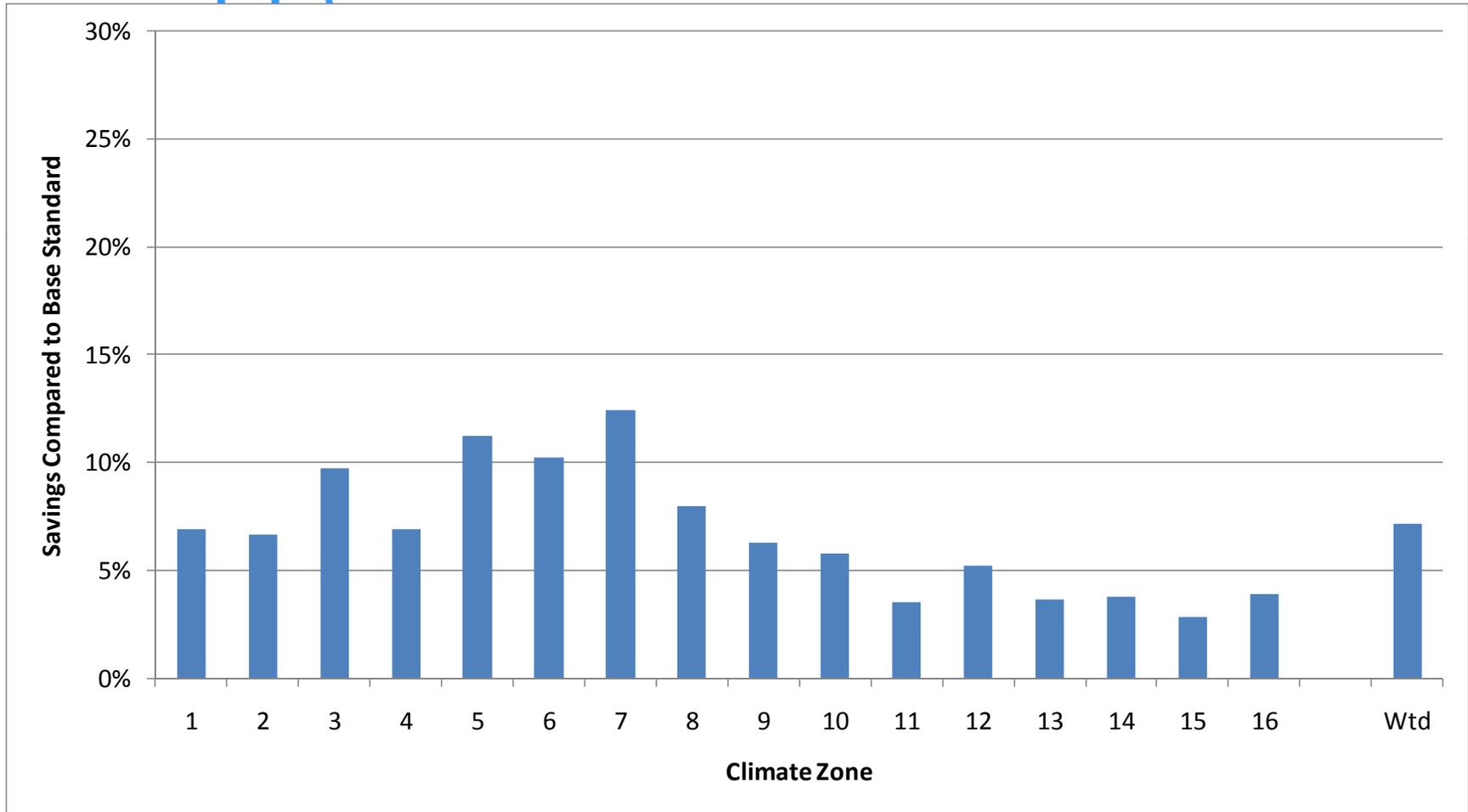


Glass: 4% N, 4% E, 10% S, 2%
W



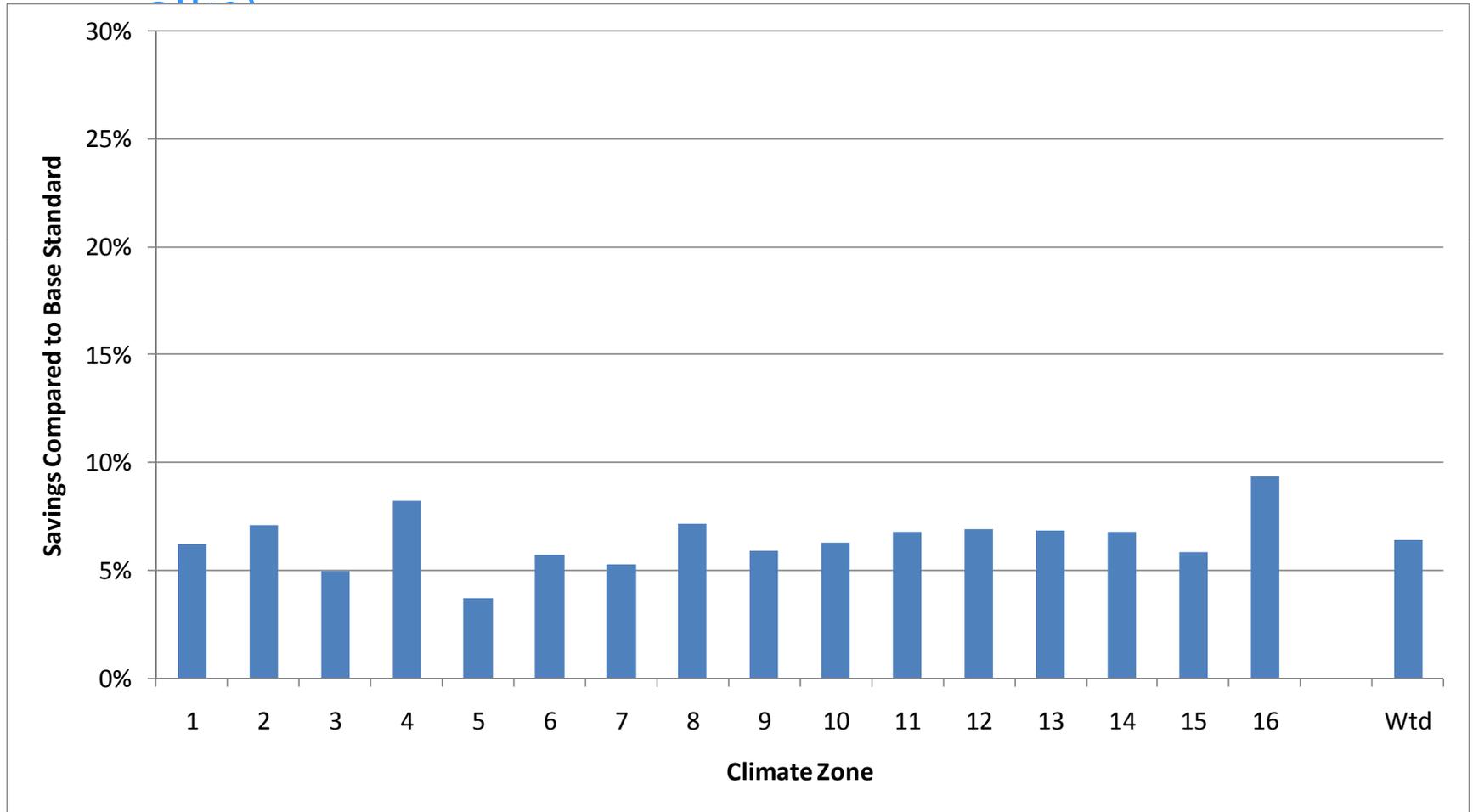


Tankless Water Heater (0.82 EF)



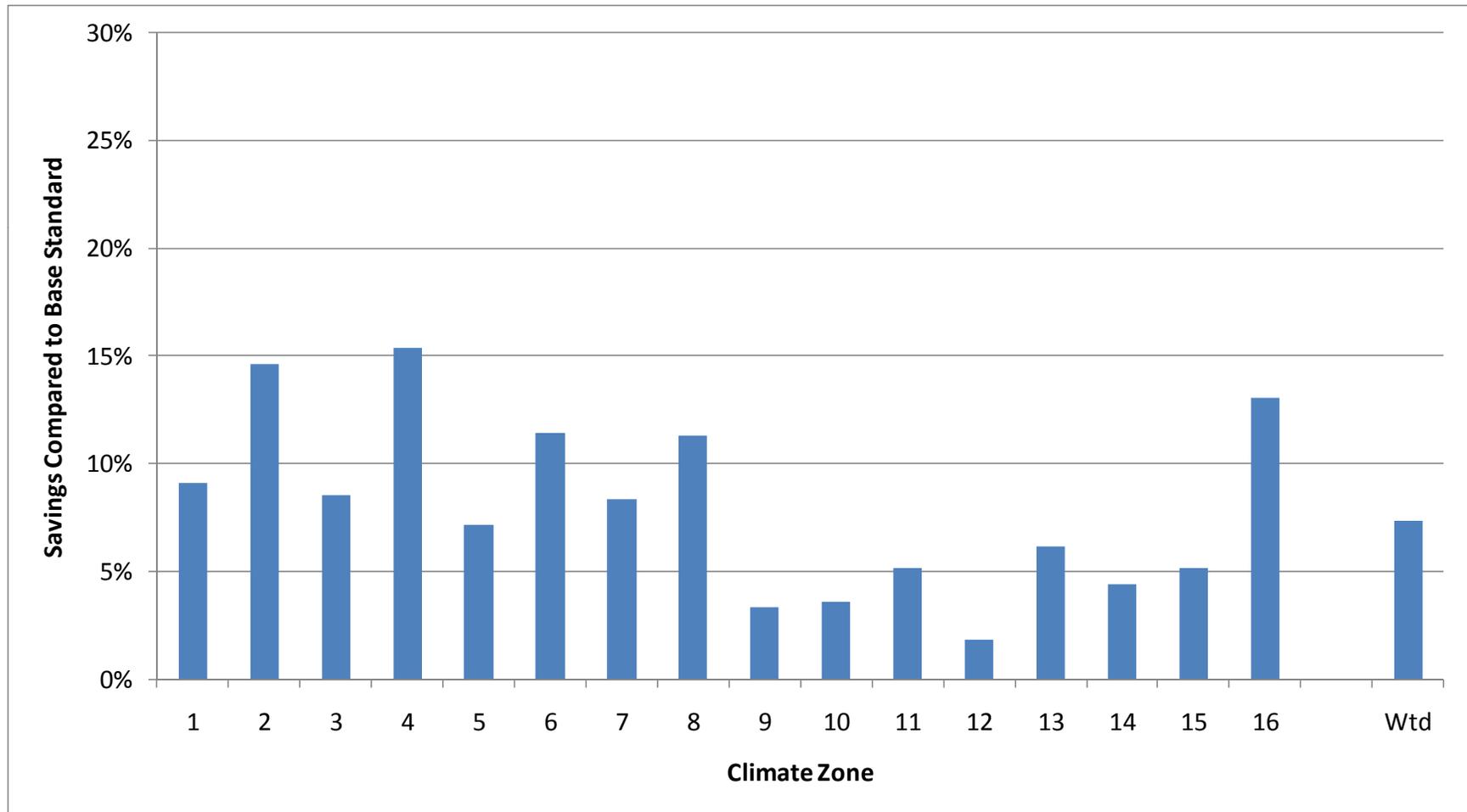


Ducts in Conditioned Space (furnace in attic)



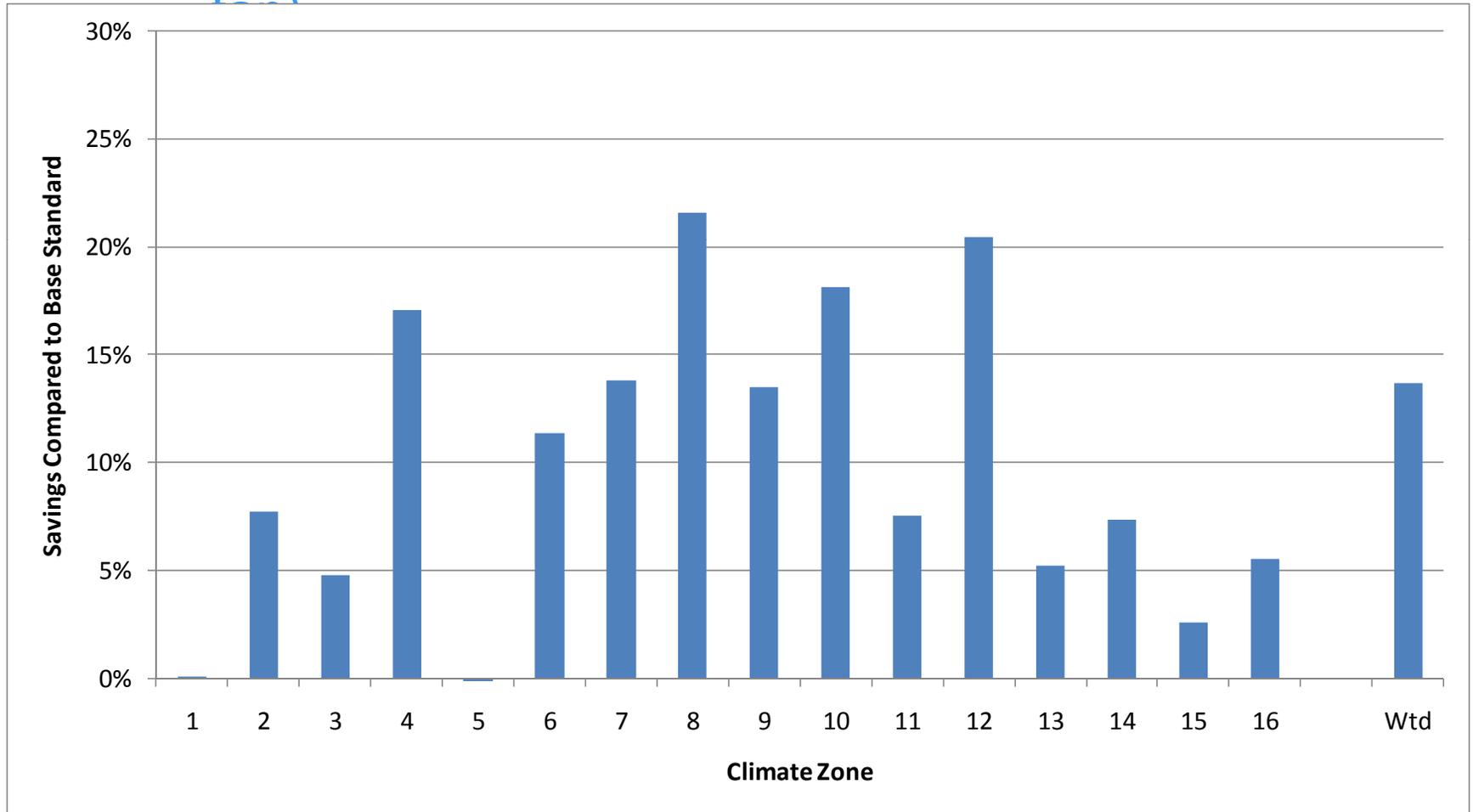


Conditioned Attic (no whole house fan)



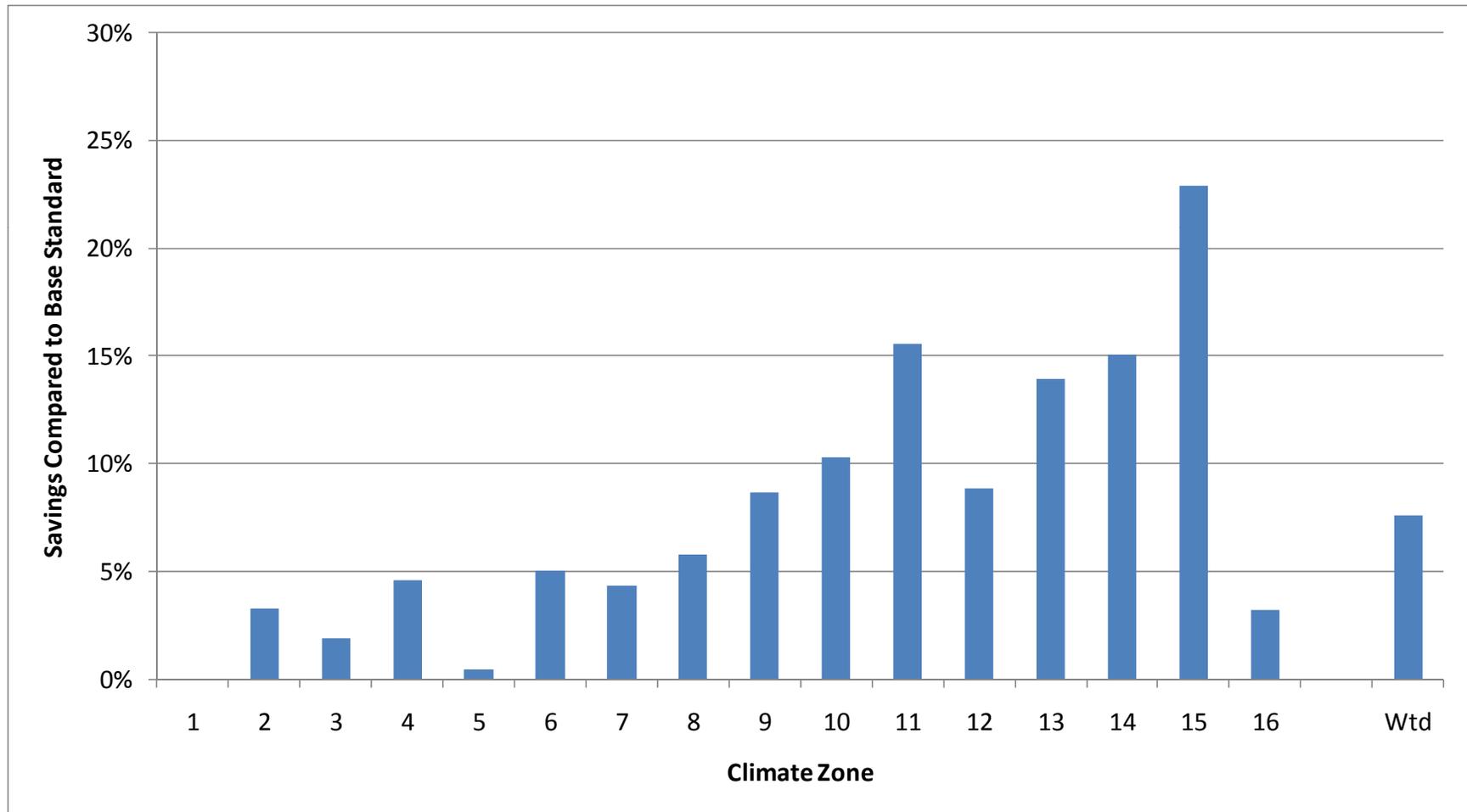


Night Breeze (instead of whole house fan)



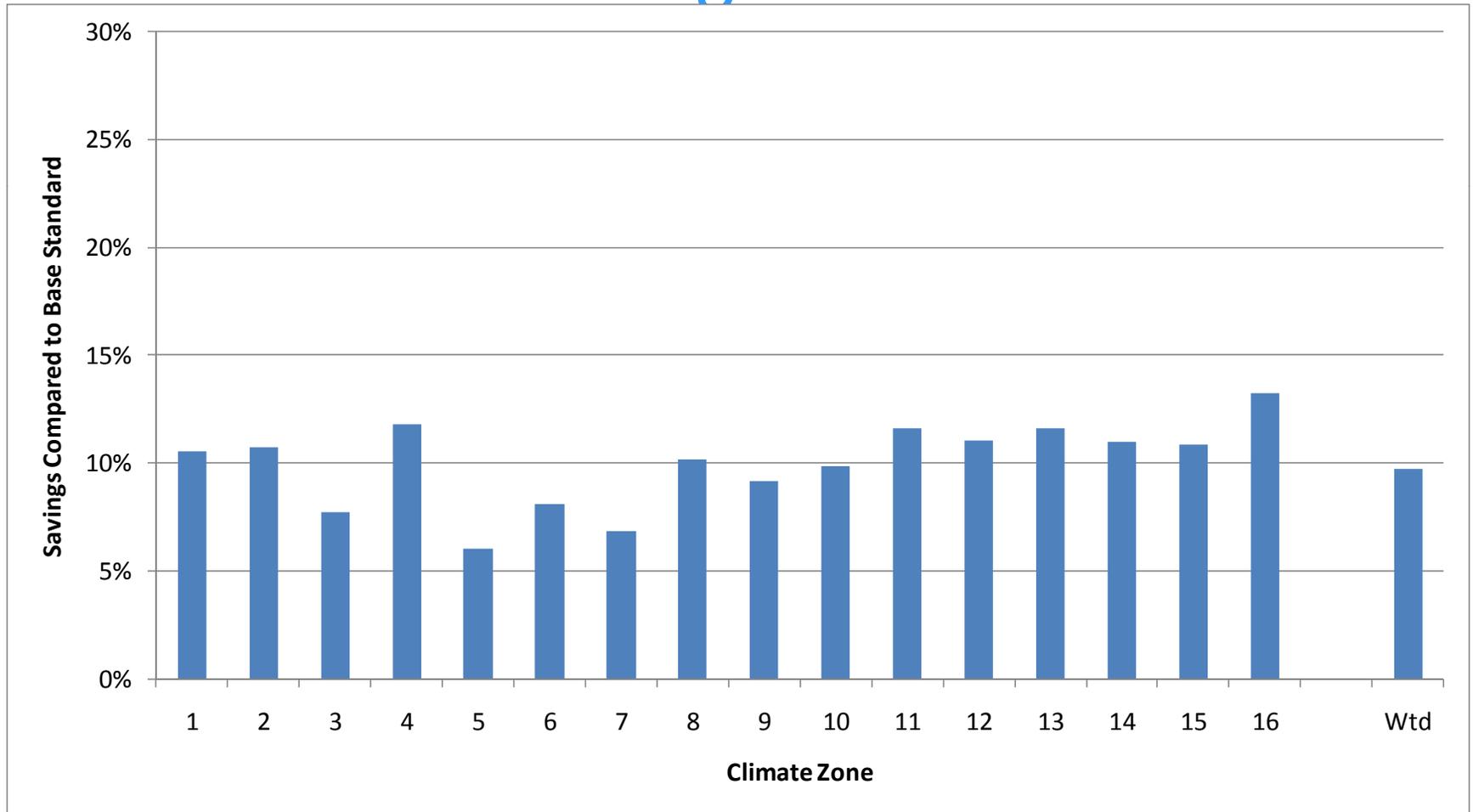


Evaporative Condenser



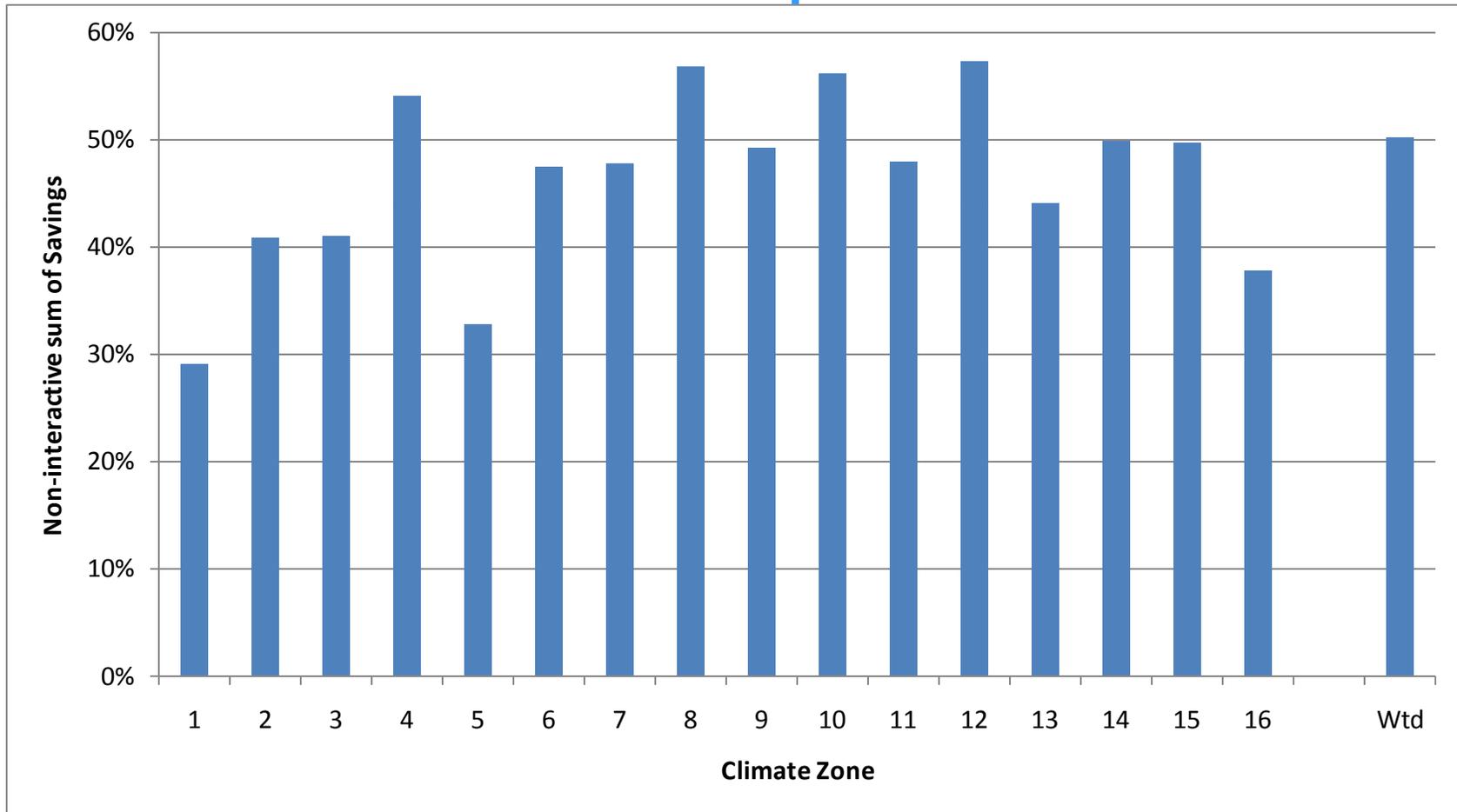


AC System in Conditioned Space, No Duct Leakage to Outdoors





Simple Sum of Measure Savings for Relative comparison ONLY





2013 Standards Update

Send related comments by September 10, 2011 to:

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