

Estimated Savings from a Benchmarking & Disclosure Policy

Prepared for Ann Arbor, MI

The following numbers are estimates of the energy, carbon emissions, and money savings that could be achieved by buildings in Ann Arbor in 2030 (with a policy fully implemented in 2015).

The calculated savings apply to the year 2030 alone; the numbers show how much less energy would be consumed in the year 2030 relative to expected consumption without the policy. It is important to note that the cumulative impact of the policies over 15 years would be at least 5 times larger than the single-year estimates shown.

Annual savings attributed to a benchmarking and disclosure policy that applies to non-residential buildings over various size thresholds:			
Threshold	50K sq. ft.	25K sq. ft.	15K sq. ft.
	Savings	Savings	Savings
Carbon emissions (tons)	17,170	19,265	19,817
Site energy (MMBtu)	121,542	136,116	139,454
Source energy (MMBtu)	239,736	268,931	276,459
Dollars	\$2,154,076	\$2,413,648	\$2,480,459

Notes on the savings calculations:

The savings calculations assume that a building that benchmarks will, on average, reduce its Energy Use Intensity (EUI) by 5% on average.

Additional assumptions:

- 90% of covered floorspace will comply with the policy
- 10% of the city's large buildings would have benchmarked voluntarily without a mandatory policy

So, 80% of the city's large buildings will benchmark under the policy and would not have done so otherwise.

Putting all of the assumptions together, the average savings rate for *all* large buildings that are covered by the policy is 4% (80% times 5% equals 4% average savings rate across the large building sector).

The independent savings rate of 5% is validated by the following studies:

- [Portfolio Manager DataTrends](#) analysis: found that buildings that consistently benchmarked between 2008 and 2011 reduced their EUIs by 7%, on average, over three years.
- [2012 IMT and PERI study](#): estimated large buildings would have energy savings of 4.6% after implementing operational improvements
- ["Energy Benchmarking of Commercial Buildings"](#) from GA Tech: estimated 5%+ in 2020 from benchmarking