



# Energy Star Measures of Energy Usage & Emissions for 3 Los Alamos County Buildings

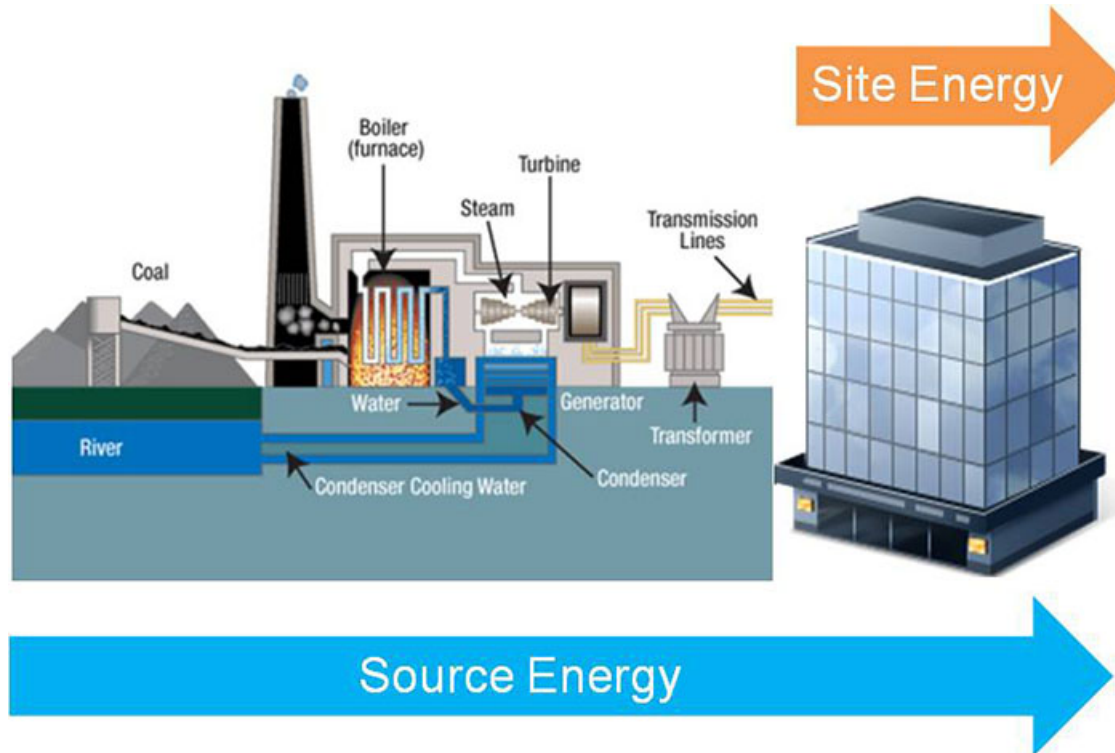
You can't manage what you don't  
measure

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Data collection by Barb Ricci, County Records and Information Manager

# Energy Use Intensity (EUI)

- EUI expresses a building's energy use as a function of its size or other characteristics.
- For most property types in Portfolio Manager, the EUI is expressed as energy per square foot per year. It is calculated by dividing the total energy consumed by the building in one year (measured in kBtu) by the total gross floor area of the building.

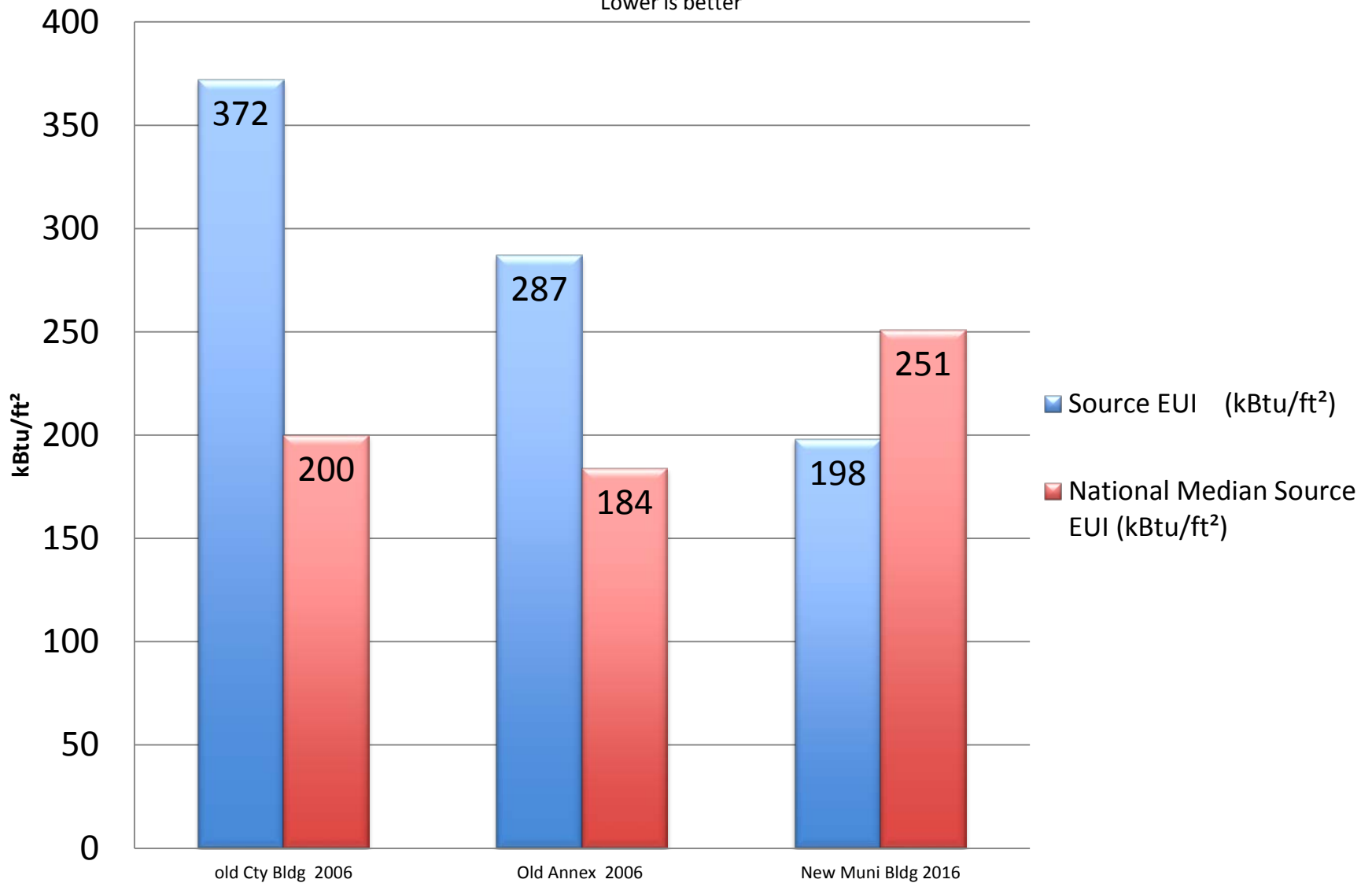
# Site vs. Source Energy



Because ENERGY STAR is a national program for [protecting the environment through energy efficiency](#), EPA has determined that it is most equitable to employ source-site ratios at the national level. As such, there is only one source-site ratio for each of the primary and secondary fuels in Portfolio Manager, including electricity. The use of national source-site ratios ensures that no specific building will be credited (or penalized) for the relative efficiency of its utility provider.

# Los Alamos County Office Buildings Source Energy Use Intensity (EUI)

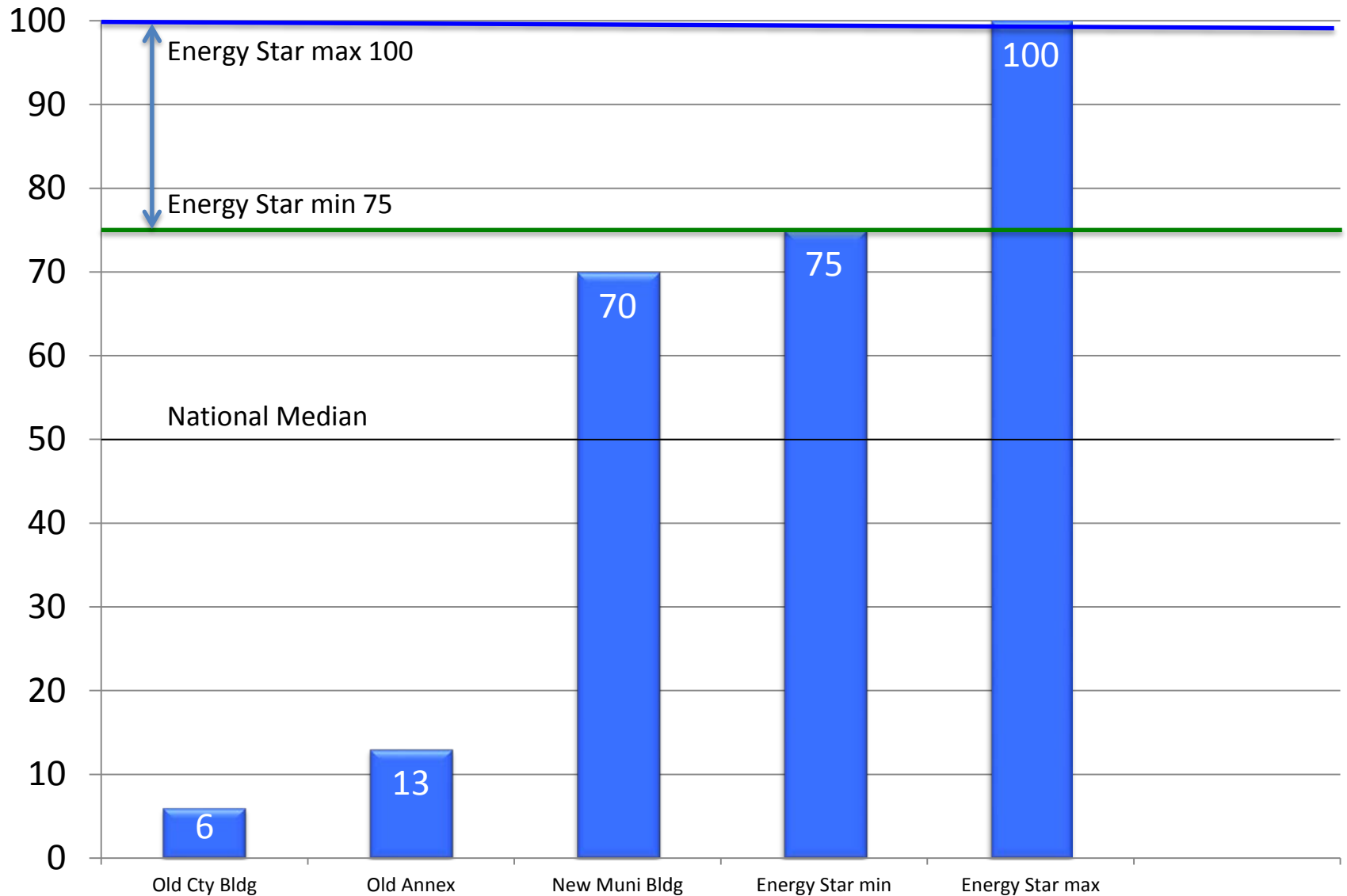
Lower is better



# **Energy Star Scores for Offices include Adjustments for Weather and Business Activity**

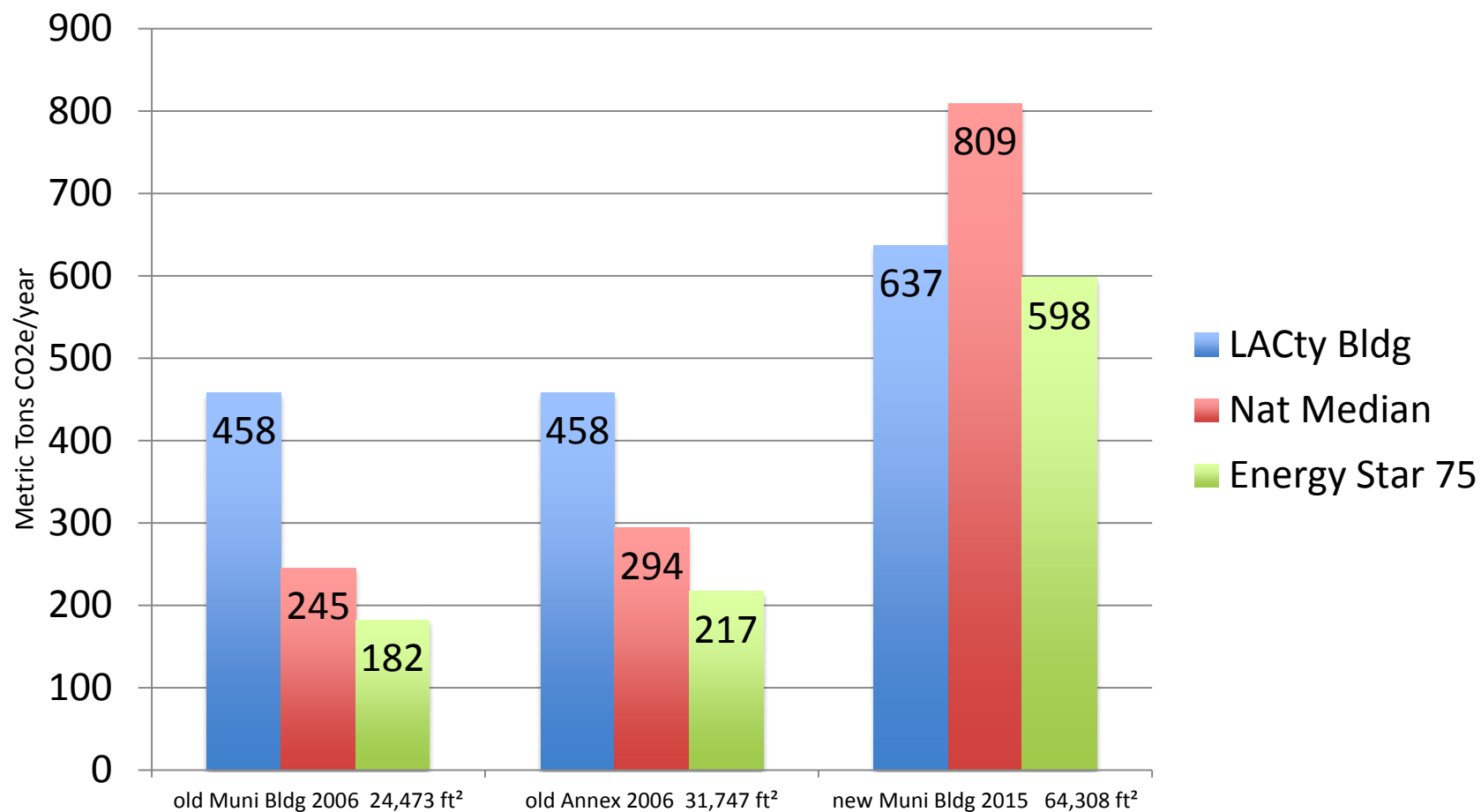
- Building Size
- Number of Personal Computers
- Number of Workers
- Hours of Operation per Week
- Weather and Climate (using Heating and Cooling Degree Days, retrieved based on Zip code)
- Percent of the Building that is Heated and Cooled

## Energy Star (Eligible scores are 75-100)



# Los Alamos County Office Buildings Greenhouse Gas Emissions

Lower is better



# Some Comments

- Based on energy and emissions, it was wise to tear down the extremely poor performing old County building and Annex.
- The new Municipal building does meet design expectations of 30% reduced energy usage, even in comparison to national means for office buildings.
- The new Municipal building with a 70 Energy Star rating is very close to the 75 rating to be eligible for Energy Star consideration.
- Other County buildings can be assessed, *e.g.* courthouse, warehouse, swimming pool, wastewater treatment plant, K-12 schools.
- These assessments can help facilities managers achieve national emissions reduction and local zero net energy goals.
- Home owners can use this tool.
- The Energy Star Portfolio Manager is EPA's online energy management and tracking tool. It is free to all users.
- More than 400,000 properties have benchmarked energy use, totaling 35 billion square ft., or nearly 40% of the nation's commercial building space.
- [www.energystar.gov/buildings](http://www.energystar.gov/buildings)