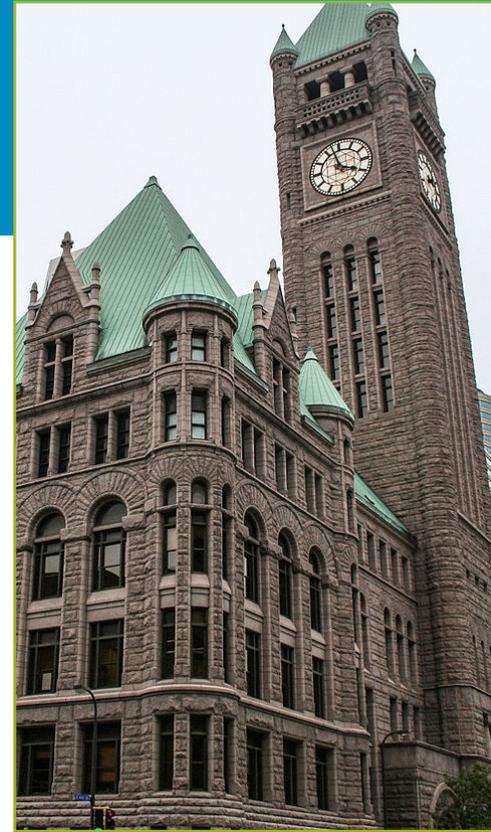


BENCHMARKING: CITY HALL PRACTICES WHAT IT PREACHES

City Hall
Minneapolis

Local governments often tout the value of energy efficiency, and at Minneapolis City Hall, a building jointly managed by the City and Hennepin County via the Municipal Building Commission (MBC), they are putting those words into action. Staff have benchmarked energy and water use since 2012 as part of the Building Rating and Disclosure policy. They have since used the data provided by benchmarking to show the results of efficiency improvements.

Though the building was built over 125 years ago, City Hall uses energy more efficiently than many buildings half as old. This is partly due to the fact that the City and County, as long-term owners of the building, seek to be good stewards of taxpayer dollars by making smart investments that improve the building's performance now and well into the future. It's not always easy, as certain public services are by their nature energy intensive. For example, 911 operations, which is located in the basement of the building, use more energy than any other tenant due to their 24/7 operations and high cooling needs for equipment. For that reason, building engineers focus on other areas for savings – like the iconic 345 – foot tall clock tower. There, clock face lighting was recently retrofitted with energy efficient LEDs.



“We’ve had unique and focused strategies for the way we approach controls, which has made significant contributions to our energy savings.

Igor Melamed
Sr. Engineer & Project
Manager



SAVINGS SPOTLIGHT

Energy use reduction from 2012 to 2016: 32%

Annual future cost savings estimate based on energy reduction: \$365,930

BUILDING NAME—BUILDING STATS

Year Built	1887-1906
Building Use	Local government offices & operations
Energy Use Intensity	59 kBtu/sq.ft.
ENERGY STAR Score	95

Energy savings continued on back

Let the Energy Savings Continue:

Igor Melamed, MBC Senior Engineer, says that the building's performance is a team effort – security, custodial, financial, and other staff who take care of the historic structure frequently report energy saving opportunities in equipment, lighting, heating, and cooling.

Future plans include retrofitting old, leaky windows, which are the largest source of air infiltration in City Hall. A recent study examined four window treatments to test effectiveness of stopping air and energy leakage: window cavity with a spray foam, weight pockets with spray foam, silicone trim, and weatherstripping. After comparing the cost and effectiveness of the treatments, the MBC will proceed with a weatherstripping project to the building's windows. This is just another example of local government continuing to moving forward with energy efficiency and practicing what it preaches.

MAJOR ENERGY-SAVING PROJECTS:

- **Sophisticated building management system that allows project managers to remotely control energy use with virtual server controls and analyze meters on energy recovery units**
- **Occupancy sensors reduce energy use in unoccupied spaces**
- **CO₂ sensors help manage the amount of ventilation needed**
- **Updated motors have been installed to include variable frequency drives and variable air volume (VAV) boxes**
- **All air handling units are equipped with full economizers**
- **Waste heat in the steam room is used to preheat domestic water supply with a 5-ton heat pump**



Top: Updated heating system uses energy recovery heat exchanger to maximize efficiency.

Left: Occupancy sensor uses infrared and motion detection to turn off lights and reduce temperatures after 20 minutes of a space being unoccupied

Right: Inside the clock faces, new LED lighting was installed to illuminate the face at night. This light is augmented by a white screen that drops behind the clock face to reflect and distribute more light through the glass.

**GET STARTED
SAVING
TODAY:**

DID YOU KNOW? Owners of buildings 50,000 square feet or larger are required to benchmark their property's energy use using the EPA's free Energy Star Portfolio Manager. You can see a map of these buildings and their metrics at: arcg.is/2aTGwsK

Questions about Minneapolis benchmarking policy?

Contact the City at 612-673-3867 or e-mail MPLSEnergyStar@Minneapolismn.gov

More info available at: www.minneapolisenergybenchmarking.org

energy
benchmarking