

Resources and Tools for Local Government

Unscrambling the Alphabet Soup

Local Government

To start, when this document refers to local government or local units of government (LUGs) this is meant to be inclusive of townships, cities, counties and school districts.

Building Benchmarks and Beyond (B3)

Building, Benchmarks and Beyond, otherwise known as B3, is the Minnesota B3 Benchmarking database/website. The State describes B3 as a, "building energy management system for public buildings in Minnesota including state, local government, and public school buildings." The tool allows building managers to track building energy usage, analyze building performance, and prioritize which buildings would most benefit from energy efficiency improvements.

Once you have your building data entered into the system you can:

- Identify which buildings are consuming more or less energy than expected,
- Compare your buildings' energy usage to other similar buildings in the B3 system,
- Compare your buildings' energy usage to other similar buildings nationwide, and
- Assess whether your buildings are consuming more or less energy than in previous billing cycles (weather adjusted) and analyze the energy usage trends.

Increasingly, it seems that access to other funds and entrance into State programs will be tied to whether or not a local jurisdiction has its data entered, and up-to-date, in B3.

Learn more: <https://mn.b3benchmarking.com/default.aspx>

Public Buildings Enhanced Energy Efficiency Program (PBEEEP)

PBEEEP is a technical and financial assistance program designed to further energy efficiency in public buildings. The first phase of the project was geared toward State Agency-owned buildings and run by Center for Energy and the Environment. The second phase of the project will be aimed at public buildings owned by public school districts, townships, cities and counties and will be run by the Division of Energy Resources (DER) at the Minnesota Department of Commerce.

The program will generally target smaller energy efficiency retrofits and retro-commissioning, controls, lighting and other common energy saving retrofits.

Retro-commissioning (RCx), or Existing Building Commissioning

The commissioning process can be applied to existing buildings that have never been commissioned to restore them to optimal performance. Retro-commissioning (RCx) is a systematic, documented process that identifies low-cost operational and maintenance improvements in existing buildings and brings the buildings up to the design intentions of its current usage.

RCx typically focuses on energy-using equipment such as mechanical equipment, lighting and related controls and usually optimizes existing system performance, rather than relying on major equipment

replacement, typically resulting in improved indoor air quality, comfort, controls, energy and resource efficiency.

RCx typically includes an audit of the entire building including a study of past utility bills, interviews with facility personnel. Then diagnostic monitoring and functional tests of building systems are executed and analyzed. Building systems are retested and remonitored to fine-tune improvements. This process helps find and repair operational problems. The identification of more complex problems are presented to the owner as well. A final report, recommissioning plan and schedule are then given to the owner.

Typical examples of appropriate use of retro-commissioning are when a building has been in operation for some years and has either been added to with new building space and equipment, or when it's occupied use has been dramatically altered. In either case, the integration of the electrical, mechanical, and/or control systems may have been altered in ways that result in the systems not functioning properly. Through the RCx process, building owners are able evaluate the all energy consuming systems and verify their performance and functionality are optimized for the new building occupancy usage.

Recommissioning

Recommissioning is another type of commissioning that occurs when a building that has already been commissioned undergoes another commissioning process. Building systems can be purchased from different vendors, installed by different contractors and operated by different facilities staff, who are under pressure to resolve occupant complaints about comfort. Quick fixes may resolve an individual complaint, but can lead to other systems becoming out of balance and losing the persistence of benefits from initial building commissioning or retro-commissioning. Additionally, building systems require periodic analysis and adjustment. Recommissioning is the process via which these imbalances can be addressed.

The decision to recommission may be triggered by a change in building use or ownership, the onset of operational problems, or some other need. Ideally, a plan for recommissioning is established as part of a new building's original commissioning process or an existing building's retro-commissioning process

In contrast to retro-commissioning, typical recommissioning occurs in buildings that have not been added to or experienced substantial occupancy use changes. Rather, overtime changes to the building systems have been altered by staff, vendors, and contractors in response to occupant complaints about comfort. Often these modifications are initiated during the transitional season changes between late winter/early spring and late summer/early fall when HVAC systems are in flux. Unfortunately, these system modifications are often only necessary for 1-2 week periods, but staff fails to restore the system configurations after the seasonal change has occurred.

Through the recommissioning process, building owners are able to review the original building design plans and evaluate the current equipment schedules and operational sequences. In the event that discrepancies are identified, the recommissioning agent will restore the systems to the original design standards.

Guaranteed Energy Savings Program (GESP)

On April 8, 2011, Governor Mark Dayton signed an Executive Order to create a comprehensive energy savings plan. This Executive Order is the directive that led to the renewal of the State's **GESP, the Guaranteed Energy Savings Program**, to provide technical, financial and contractual assistance to local units of government seeking building retrofit programmatic support.

This program targets:

- Deep energy efficiency and renewable energy retrofits
- Addresses deferred maintenance and renews building infrastructure
- Addresses facility issues including comfort, ventilation, operation and maintenance.

GESP is a state Program working towards completion of a "Master Contract" to enable the use of performance contracting (see next item) to any unit of government seeking to implement deep building retrofits. Although the Master Contract cannot be directly enacted by local units/schools; they can use the Master Contract, as a template contract, and modify it to meet their local ordinances and contractual approval procedures.

For assistance from the GESP Office, contact the State Program Administrators Peter Berger at peter.berger@state.mn.us or Eric Rehm at eric.rehm@state.mn.us.

Performance Contracting

Energy Services Companies (ESCOs), the Energy Services Coalition and Energy Savings Performance Contracting ... these are all part-and-parcel of the same thing, with ESCOs being the actual companies who do this sort of work, the Energy Service Coalition being their professional association, and Energy Savings Performance Contracts being the contracts they develop with entities to further energy saving projects.

In general the GESP program, described above, seeks to help end users – local units of government – target deep building retrofits through the use of the energy savings performance contracting. These contracts can also be used in other sectors – such as commercial and industrial. What performance contracting is – in a nutshell – is a private company doing energy efficiency upgrades and guaranteeing a certain level of energy savings from that work. They sign a contract that says that if they don't meet their estimated savings, they cut you a check to make up for the difference. It can be an effective way to get improvements financed (and not have to put out cash on your own), but it always requires a level of knowledge going in as to what should and should not be in a contract. Below are a few links:

- a. How the industry conveys what it does:
<http://www.energyservicescoalition.org/resources/whatis.htm>
- b. How EnergyStar thinks of it:
http://www.energystar.gov/ia/partners/spp_res/Introduction_to_Performance_Contracting.pdf
- c. Call the Division of Energy Resources with questions and for project support. Peter Berger and Eric Rehm are the point people in the GESP Office. Their phone numbers are 651-296-2459 and 651-296-6446, respectively.

Local Utility Incentives

All Minnesota Utilities – gas and electric – have energy efficiency rebate programs. These programs are designed to support customers as they make energy efficiency improvements. The most comprehensive listing of available utility rebates is www.dsireusa.org. Once at the site, simply click on the State of Minnesota.

For more detailed information about incentives and programs available through your utility – and/or to discuss the potential for a custom rebate, please contact your local gas and electric utilities directly. Their contact information can typically be found on your monthly bill.

Sustainable Buildings 2030

For new buildings, the best option is to look at the Minnesota Sustainable Buildings 2030 (SB2030). This program provides standards and guidelines for designing buildings to use less energy over the course of their operational life. Building projects that receive State bonding dollars are required to follow these standards. Other projects can access and utilize these standards voluntarily to ensure their building is built to control energy costs into the future. <http://www.mn2030.umn.edu/>