**How to comply with state law on High Performance Public Buildings**

**Guidance for State Project Managers**

**Monitoring Requirements**

The state law (RCW 39.35D) on high-performance public buildings – those that are constructed and operate in a way that reduce impacts to the environment compared to a traditional building –requires agencies and universities to report annual savings to the Department of Enterprise Services.

To capture these savings, the proper metering capabilities must be designed and installed in these buildings during construction. This includes the monitoring of electrical and other energy consumption (gas, steam, hot water, oil, propane, solid fuel, or other) that is not separately billed, such as on a campus where electricity and heating energy is centrally metered.

In-building water use must also be monitored, including the use of reclaimed water (treated wastewater) or captured rain water. Irrigation systems connected with the building should be monitored separately. Irrigation systems that are connected to a campus system do not have to be tracked separately.

**Recommended Monitoring Strategies**

The preferred method of monitoring is to integrate these capabilities into the Energy Management Control System (EMCS). Current transformers (CTs) are designed to monitor the total power for the building and are connected to the EMCS, providing the ability to easily monitor electricity consumption. If a building is separately metered, the utility company may be able to provide a pulser that can be connected to the EMCS.

For natural gas heating energy systems, check with the natural gas company to determine if a pulser can be added to the gas meter to provide a signal for the EMCS.

For a campus hot water system, a Btu meter connected to the EMCS may be the best system for determining the heating energy used by the building.

You should work with the owner, design engineer and the commissioning authority to develop a strategy that will work for the building.

**Commission the Monitoring Systems**

All monitoring systems must be commissioned and programmed to collect the consumption of energy and water. It is further recommended that the commissioning authority check the monitoring system(s) after ten (10) months during the Enhanced Commissioning effort of the EMCS, HVAC, and electrical systems. This is to ensure that monitoring systems are functioning properly and that the proper data is being collected for reporting to DES.

**Questions?**

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