

# C&I 2019 Energy Efficiency Program Guidelines

## Packaged Variable Speed Domestic Water Booster Pump Systems

Following is the minimum information required for energy conservation measures (ECM's) related to packaged variable speed domestic water booster pump system installations. Projects applying for incentives related to packaged variable speed domestic water booster pump systems must comply with all applicable requirements listed below.

### Required Project Documentation

All projects must provide the following documentation:

- A. A detailed scope of work that contains all equipment in the proposed measure and includes existing system operation.
- B. A cost proposal as provided to the customer, including labor and materials
- C. An engineering analysis of the estimated energy savings based on implementation of the proposed measure.
- D. The engineering analysis must include both summer peak kW savings and annual kWh savings.
- E. **Use the existing system operation as the baseline. However, NEMA premium efficiency motors must be used in the baseline if the project involves motor replacement. The analysis must be provided in a datasheet format such as Excel with savings calculations and algorithms. The engineering analysis must show water booster pump system energy consumption before the upgrades and water booster pump system energy consumption after the upgrades.**

### Required Technical Data

All incentive applications must include the following technical data:

1. Facility water demand (ft<sup>3</sup> or GPM of water per month)
2. Facility size including number of floors where water must be delivered
3. Quantity of pumps in existing and proposed systems
4. Existing flow modulation i.e. recirculation, parallel pump configurations and/or variable speed drive
5. Speed control on each proposed pump
6. Existing and proposed water distribution system pumping capacity - discharge rate (gpm) and discharge pressure (psi)
7. Make and model number of proposed pumps and motors or the skid system.
8. Annual hours of operation for the pumps
9. Proposed pump performance curves
10. Size of existing and proposed pump motors (hp)
11. Proposed motor efficiency and load factor