

New BPA Deemed Measure: **Energy Smart Design™ -Office Pkg A**

Measure Description: Energy Smart Design™ -Office (ESD –Office) Package A is a prescriptive package including all of the following:

- CEE Tier 2 cooling system minimum efficiency level,
- Maximum Effective Window U-Values (fixed 0.35 / Curtain wall 0.40).
- 0.30 Maximum Window SHGC ,
- Enhanced economizer,
- Integrated Design of HVAC System, including Fan Power reduction,
- 0.75 Watts/SF Lighting Budget (whole building),
- Occupancy Sensors-install where lighting loads are over 100 watts and sensors are not required by code.

Savings: ESD -Office Package A is estimated to save 2 kWh per square foot (2.1 kWh per square foot at the bus-bar). This represents 10% to 15% savings over code, and a BPA Regional target of just over 1 aMW through 2011.

Incentive: 50 cents per square foot (CRC or CAA)

Application: Office buildings, including banks, libraries, dentist offices and medical office buildings.

Eligibility: ESD -Office Package A buildings must meet the following:

- new construction, an office addition, or a major renovation for an office;
- 3 stories or less;
- a maximum of 100,000 square feet;
- the building must use the packaged HVAC systems for at least 70 percent of the conditioned space; and
- have a maximum Window-to-Wall Ratio of 30%.

Market size: Between 300 and 350 small office buildings are expected to be built each year in BPA service territory.

Effective: The ESD -Office Package A incentive is available Oct 1, 2007 through Sept 30, 2009, and should be available through 2011, pending rate case results.

PTR reference numbers: CMN00001 (Constant Volume Single Zone packaged unit with non-electric heat), CMN00002 (heat pump), CMN00003 (VAV electric), and CMN00004 (VAV non-electric)

Documentation requirements: 1) Cooling system cut sheets, 2) NFRC label for each glazing product or documentation of default U-value and SHGC, 3) If any window performance exceeds the specified U-values, provide an area-weighted calculation of average window thermal performance for all windows, showing that the area-weighted U-value is 0.35 or below for fixed glazing and 0.40 or below for operable windows, storefront and curtain wall glazing systems, 4) Economizer Commissioning Checklist*, 5) Integrated Design Checklist*, 6) Copy of lighting budget form required for permit and “any submitted code compliance documents”, 6) Building drawings in PDF format, 7) Lighting Control Checklist* and 8) certification letter* from a professional familiar with the building design.

* Sample certification letter and checklists available in the specification appendices, which can be found at <https://www.ptr.nwcouncil.org/outsidedocs.asp>

Marketing materials: Flyers, FAQ's, bill stuffers, sample end-user agreement, a link to specifications, documentation checklists, talking points, frequently asked questions and a sample end-user certificate are available at:

<http://www.bpa.gov/Energy/N/projects/ESD%2DUtility/>

Resource materials: Sample lighting guides, sample designer contract language, sample CSI specifications, documentation checklists, frequently asked questions and a list of participating utilities are available at: www.bpa.gov/ESD

Owner Outreach: to arrange technical conference calls for the owner or design team contact your Energy Efficiency Representative.

A&E Outreach: During 2008, training sessions for architects and engineers on Advanced Building Core Performance and Energy Smart Design™ -Office are being scheduled throughout the region. Register at

<http://www.advancedbuildings.net/training.php>

Note: ESD -Office Package A is aligned with the ASHRAE Advanced Energy Design Guide for Small Office Buildings and Advanced Building Core Performance Guidelines. No modeling or M&V is required.