District Data Collection Worksheet
Energy Benchmarking of Existing Buildings
2012

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INSTRUCTIONS

I. Overview

This worksheet provides guidance to building owners or their agents (such as property managers or service providers) on the data that needs to be collected in order to benchmark buildings using the ENERGY STAR® Portfolio Manager in accordance with District of Columbia benchmark requirements. This worksheet is based on the Portfolio Manager Data Collection Worksheet, with additional District requirements highlighted.

Portfolio Manager is a widely-used, free, online software tool, designed by the United Stated Environmental Protection Agency (U.S. EPA) to help building owners and managers track and manage energy and water use in their buildings. The tool requires basic information such as building size, occupancy patterns, and utility information to measure the performance of a building. All buildings can be entered into Portfolio Manager to receive an analysis of their energy and water efficiency, as well as a comparison of performance against a national average for buildings of a similar type. All buildings receive a weather-normalized Energy Use Intensity (EUI), measured in kBTU/sq ft. Some building types can also receive a 1-100 score; however, being eligible for a score is not a requirement for benchmarking in Portfolio Manager or reporting to the District. The score is calculated by comparing their building's EUI to buildings used in similar ways, based on the space use data that is inputted into the tool. The space use data being required was selected by U.S. EPA because it correlates with energy use in a statistically significant manner.

This worksheet covers requirements for 2012. All buildings over 100,000 gross square feet (gsf) are required to report calendar year 2012 information. You must attempt to include ALL spaces within the building, even if those spaces are optional within Portfolio Manager or not required for ENERGY STAR® certification (e.g. ground-floor retail spaces in office buildings). You are also required to report water data, and certain space use information that is listed as optional in Portfolio Manager.

If you have *any* non-residential tenants, you must gather space use and utility data about those tenants. All the data required from the tenants can be found on this worksheet. For your convenience, the District Department of

the Environment (DDOE) has also created a *Non-Residential Tenant Information Form* that you can use to request information from the tenants. Even if you are already in possession of the utility information for the tenant spaces, you may still need to assemble space use information. If the building has *only* residential tenants/members, then you do not need to collect space or utility information from them.

All DDOE forms, along with a comprehensive Frequently Asked Questions (FAQ) document, can be found at http://ddoe.dc.gov/energybenchmarking. You can find technical information on Portfolio Manager at http://www.energystar.gov/benchmark. For technical support, please contact the DC Sustainable Energy Utility's Benchmarking Help Center at 202-525-7036 or benchmarking@dcseu.com. You can contact DDOE directly at info.benchmark@dc.gov.

II. Required Data for District ENERGY STAR Benchmarking for 2012

- Portfolio Manager account, with a username and password.

- The building street address, year built, and contact information (Listed in **Worksheet Section A**).

- The Building ID number assigned by the DC Office of Tax and Revenue. DDOE has published a list of these numbers for buildings over 100,000 sq ft, along with the square footage estimate as recorded by the Office of Tax and Revenue. The number or numbers should be entered as the *Unique Building Identifier (UBI) in Portfolio Manager.* For most properties, this is the property's Square Suffix Lot (SSL) or Parcel number. For condominium buildings, this is the Square Suffix + Regime number. If your property covers multiple parcels or tax lots (and is not a condominium), enter all included SSL/parcel numbers in the Unique Building Identifier field in Portfolio Manager. To figure out if multiple buildings need to be combined into a single property for the purposes of benchmarking in Portfolio Manager, see **Section III**. Enter this information in **Worksheet Section A**.

- The building gross floor area and key operating characteristics for the building type, or each major space type within a building. Use **Worksheet Section B** of this worksheet to collect this information before logging in to Portfolio Manager. **Please note that although some information fields may be listed as** *optional* **within Portfolio Manager, the District has additional data requirements that Section B incorporates.** Please reference the appropriate sections of this form when using Portfolio Manager for the purpose of reporting to the District. Portfolio Manager fields that are generally optional, but are required in the District, are highlighted in grey block within relevant building or space types in **Section B**. **These additional fields are only required to be included beginning with 2012 data; consult the** *2010-2011 Data Collection Worksheet* **for the more limited 2010 and 2011 requirements.**

- Usage for **all fuel types and water** must be reported for calendar year 2012. Because most bills do not begin on the first of the month and go to the last day of the month, you will need to include up to 14 consecutive months of utility usage, including the start and end dates for each bill so that your data is inclusive of January 1, 2012 to December 31, 2012. If you are missing any part of the year, Portfolio Manager will report N/A and you will not be able to submit to DDOE. Use **Worksheet Section C** to enter this information. If you don't have this information readily available, contact your utility provider(s); contact information is provided in **Section C**.

- **If energy or water is individually metered for any *non-residential* tenants within your building, then you must request this information from your non-residential tenants to complete benchmarking. If you have five or more tenants, you can get whole-building electricity data directly from Pepco instead of from the tenants. You do not need to collect information from any residential tenants.**

III. Collecting Data for Multiple Buildings

If your property has meters shared across multiple buildings, or building systems (such as a central gas furnace) shared across multiple buildings without sub-metering, then the energy use cannot be attributed to any individual building. In such cases, the building must be benchmarked as a single building or campus in Portfolio Manager. Hospitals, K-12 schools, and multifamily housing properties in this situation should be benchmarked as a single property. University campuses and other large campuses comprised of vastly differing uses should be benchmarked using the special campus functionality in Portfolio Manager. Because the campus functionality requires a special, manual submission process in order to report to the District, DDOE recommends that, when in doubt, to group as a single property rather than a campus.

If you have multiple buildings that are separately metered for all energy sources, but share a common water meter, DDOE recommends that you pro-rate the water use across the buildings by their gross square footage.

IV. Collecting Data for Vacated or Vacating Non-Residential Tenants

If you had tenants whose lease ended, and who vacated the building, prior to the finalization of the benchmarking regulations on **January 18, 2013**, you **DO NOT** need to collect any data from them. Instead, please just collect any meter information at the whole building level, and use Portfolio Manager "default values" for the space use attributes. If the tenant was separately metered for all energy utilities, then do not include them in your report. Please see the Frequently Asked Questions document for a more detailed explanation of how to do this in Portfolio Manager.

If you have any tenants whose lease ended after the finalization of the benchmarking regulations on [date of final publication in the register], you must still collect data from them. If you have any tenants who will soon be vacating, DDOE recommends you just get waiver forms from them so you will not have to follow-up with them after they move out to get the final month(s) of usage data.

V. Optional Information

If you have additional information about your building that you would like to submit to help clarify a poor score or Energy Use Intensity (EUI), you may enter this in the Notes field in Portfolio Manager. Such information may include a description of past or future plans for a building (such as an anticipated renovation project), or legal restrictions such as rent control that may limit your ability to make upgrades. You must make clear that you want some of the text made public, as DDOE will by default not make any notes field data public. *The notes field currently allows a maximum of 1,000 characters. To conserve space DDOE recommends that you put the text you want made public first, and use the mark "##" to separate it from the private notes.*

Worksheet Section A. General Building Information

Facility name _____

Year built _____

Building address:

Street _____ Quadrant _____

City _____ State _____ ZIP _____

DC Unique Building Identifier (SSL, Parcel, or Complex Number) _____

Additional SSL or parcel numbers if needed _____

Worksheet Section B. Space Use Attributes for Building Type and Space

Please note the following PRIOR to completing this section:

- For help choosing the appropriate building type, refer to the Portfolio Manager Help at www.energystar.gov/benchmark and click on "Space Type Definitions".

- Some properties may contain multiple space types within a single building (e.g., office, data center, and parking, swimming pool, etc.). Select as many major space types as are applicable to your building and fill in their respective information as necessary.

- **Portfolio Manager fields that are generally optional, but are required in the District beginning with calendar year 2012, are highlighted in grey block within each category.**

- If your property has multiple tenants with the same space type, these spaces should be entered separately only when the number of weekly operating hours among tenants differs by more than 10 hours. For example, in a 100,000 square foot (SF) office building where 75,000 SF operates 60 hours a week and 25,000 SF operates 80 hours a week, please list as two separate spaces – one 75,000 SF space and one 25,000 SF space. As this is most common in office buildings, multiple office space fields are provided below to capture data for multiple tenants if necessary.

- If the values for a space use value changed over the course of 2012, you *need* only record the average value for the year. However, if the value changed by more than 10%, then it may improve your score to record the date of this change and both the old and new values. The form has a space at the end of Section B where you can note this.

- Portfolio Manager does have default values for all space use characteristics with the exception of gross floor area. However, you should not use those values except in special cases such as a vacated tenant as discussed above in Section IV.

Bank/Financial Institution:

Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)

_____ Percent of floor area that is heated (>=50%, <50%, or none)

Courthouse:

Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)

_____ Percent of floor area that is heated (>=50%, <50%, or none)

Data Center:

Required:

_____ Gross floor area (SF)

_____ IT Energy Configuration – Select one from:
1. Uninterruptible Power Supply (UPS) Meter supports only IT Equipment. (Preferred)
2. UPS Meter includes non-IT load of 10% or less.
3. UPS Meter includes non-IT load greater than 10%. Non-IT load is sub-metered.
4. UPS Meter includes non-IT load greater than 10%. Non-IT load is not sub-metered.
5. Facility has no UPS Meter.
6. IT Energy is not current metered at this facility – Apply Estimates.

_____ IT Energy Data – 12 months of measured energy consumption data is required from either the UPS or PDU Meter, depending on IT Energy Configuration

Meter Type (select 1): UPS Output or PDU Input		
Month Start Date	Month End Date	kWh

Optional:

_____ UPS System Redundancy (N, N+1, N+2, 2N, greater than 2N, none of the above)

_____ Cooling System Redundancy (N, N+1, N+2, 2N, greater than 2N, none of the above)

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Hospital (General Medical and Surgical):

Required:

_____ Gross floor area (>20,000 SF)

_____ # of staffed beds

_____ # of MRI machines

_____ # FTE workers

_____ Maximum # of floors

_____ Tertiary care facility – yes or no

_____ Number of Buildings

_____ Laboratory on-site – yes or no

_____ Laundry facilities on site – yes or no

_____ Ownership Status (non-profit, for-profit, government)

House of Worship:

Required:

_____ Gross floor area (SF)

_____ Maximum seating capacity

_____ # of Weekdays of operation

_____ Hours of operation per week

_____ # of personal computers

_____ Presence of cooking facilities - yes or no

_____ # of commercial refrigeration/freezer units

Hotel:

Required:

_____ Gross floor area (SF)

_____ # of rooms

_____ # of workers on main shift

_____ # of commercial refrigeration/freezer units

_____ On-site cooking – yes or no

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Hours per day the guests are on-site

_____ Number of guest meals served

_____ Square footage of full-service spas

_____ Square footage of gym/fitness center

_____ Laundry processed at site (choose one: no laundry facility, linens only (e.g. bed/table linens), terry only (e.g. towels, bathrobes), both linens and terry)

_____ Annual quantity of laundry processed on-site

_____ Average Occupancy (%)

K-12 School:

Required:

_____ Gross floor area (SF)

_____ # of personal computers

_____ # of walk-in refrigeration/freezer units

_____ High school - yes or no

_____ Open weekends – yes or no

_____ On-site cooking – yes or no

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Months of use

Optional:

_____ School District

Medical Office:
Required:
_____ Gross floor area (SF)

_____ # of workers on main shift

_____ Weekly operating hours

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

General Office 1:
Required:
_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)

_____ Percent of floor area that is heated (>=50%, <50%, or none)

Multifamily Housing:
[No tenant data collection needed]

Required:

_____ Gross floor area (SF)

_____ Total number of units

_____ Total number of bedrooms

_____ Maximum number of floors in the tallest building/tower

_____ Percent of square footage devoted to common area

_____ Number of laundry hookups in common area

_____ Number of laundry hookups in each unit

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Government subsidized housing (Yes or No)

_____ Meter Configuration (which meters cover tenants only, common spaces only, or both)

Optional:

_____ Total number of dishwashers in all units

_____ Resident population type (No specific type, Dedicated Student, Dedicated Military, Dedicated Senior/Independent Living, Dedicated Special Accessibility Needs, Other Dedicated Housing)

_____ Primary hot water fuel type

General Office 2:
Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)

_____ Percent of floor area that is heated (>=50%, <50%, or none)

General Office 3:
Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)

_____ Percent of floor area that is heated (>=50%, <50%, or none)

Other:

Required:

_____ Gross floor area (SF) (must be less than 10% of gross building floor area in order for the building to be eligible for a rating)

_____ Weekly operating hours

_____ # of personal computers

_____ # workers on main shift

Parking:

Required:

_____ Gross floor area that is enclosed (SF)

_____ Gross floor area that is unenclosed with a roof (SF)

_____ Gross floor area that is open (no roof) (SF)

_____ Weekly hours of access

Retail Store:

Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of personal computers

_____ # of cash registers

_____ # of walk-in refrigeration/freezer units

_____ # of open & closed refrigeration/freezer cases

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Exterior entrance to the public – yes or no

Residence Hall/Dormitory :

Required:

_____ Gross floor area (SF)

_____ # of rooms

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Computer lab on-site – yes or no

_____ Dining Hall on-site– yes or no

Senior Care Facility	**Supermarket/Grocery Stores:**
Required:	*Required:*
_____ Gross floor area (SF)	_____ Gross floor area (SF)
_____ # of units	_____ Weekly operating hours
_____ Average Number of Residents	_____ Workers on main shift
_____ Total Resident Capacity	_____ On-site cooking – yes or no
_____ # of workers on the main shift	_____ # of walk-in refrigeration/freezer units
_____ # of PCs owned by the community (does not include PCs owned by residents)	_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)
_____ # of commercial refrigeration/freezer units	_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)
_____ # of commercial washing machines	_____ # of open or closed refrigeration/freezer cases
_____ # of residential washing machines	_____ # of registers and/or personal computers
_____ # of residential electronic lift systems	
_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)	
_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)	
Swimming Pool:	
Required:	
_____ Swimming pool size, choose from: Olympic (50 meters x 25 meters) Recreational (20 yards x 15 yards) Short Course (25 yards x 20 yards)	
_____ Indoor or outdoor	
_____ Months of use	

Warehouse (unrefrigerated and refrigerated):

Warehouse (Unrefrigerated):

Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

_____ # of walk-in refrigerators/freezer units

_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)

_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

_____ Distribution Center – yes or no

Warehouse (Refrigerated):

Required:

_____ Gross floor area (SF)

_____ Weekly operating hours

_____ # of workers on main shift

Wastewater Treatment Plant:

Required:

_____ Average influent flow (mgd)

_____ Average influent biological oxygen demand (BOD_5)

_____ Average effluent biological oxygen demand (BOD_5)

_____ Plant design flow rate (mgd)

_____ Presence of fixed film trickle filtration process – yes or no

_____ Presence of nutrient removal process – yes or no

Water Treatment and Distribution Utility:

Required:

_____ Average flow (mgd)

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Optional: Record notes about space use attributes, such as a change to an attribute over the course of the year (if the change was more than 10%) here:

Optional: Record contextual information you want to put into Portfolio Manager's notes field for public disclosure here.

Worksheet Section C. Utility Information Collection

Use this section to help with the collection of information for each building and/or space type being benchmarked. You need to collect monthly consumption information for all energy sources (usually just electricity and natural gas, but sometimes oil, propane, steam, etc), and water. Because most bills do not begin on the first of the month and go to the last day of the month, you will need to include additional months so that your data is inclusive of January 1, 2012 to December 31, 2012—you may need as many as 14 months of data. If you are missing part of the year, Portfolio Manager will report N/A and you will not be able to submit to DDOE. Some utilities include usage for the last 12 months on each bill, so that may help you more easily identify your usage. Utility history is also available online, or by calling customer service.

When collecting this information from your tenants, your tenants have one of three options. Tenants can (a) fill out a grid similar to this one in the Non-Residential Tenant Information Form for 2012, (b) fill out a utility data authorization release form which you can use to request their data from the utility company or companies directly, (c) provide you with copies of their utility bills if those bills have usage for each month of 2012 listed on them

For electricity data only, if you have five or more tenants, you can get aggregated whole-building data from Pepco directly instead of from your tenants, by providing Pepco with all the meter numbers via their [Building Energy Consumption Request Form](#).

Note that if you have any tenants who will soon be vacating, DDOE recommends you just get waiver forms from them so you will not have to follow-up with them after they move out to get the final month(s) of usage data in the future.

Electricity:
> Contact Pepco or your electricity supplier
> http://www.pepco.com/contact/
> http://www.pepco.com/business/services/consumptionrequestform/
> 202-872-2040

Natural Gas:
> Contact Washington Gas or your supplier
> http://www.washgas.com/pages/ContactUs
> (703) 750-1000

Water *(Required beginning with 2012 data)*:
> Contact DC Water
> http://www.dcwater.com/contact
> 202-787-2000

Other utilities, like fuel oil, steam, or propane: Contact your supplier(s)

Electricity Usage		
Month Start Date	**Month End Date**	**kWh (kilowatt-hours)**

Natural Gas Usage		
Month Start Date	**Month End Date**	**therms**

Water Usage		
Month Start Date	**Month End Date**	**kGal (thousand gallons)**

Fuel Oil Usage (if applicable)		
Month Start Date	**Month End Date**	**gallons**

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Steam Usage (if applicable)		
Month Start Date	**Month End Date**	**MLbs (million pounds)**

Other Energy Usage (if applicable), Type: _____		
Month Start Date	**Month End Date**	**Units: _____**