Better Buildings Challenge Data Collection Template

Overview:

This template is intended to assist Better Buildings Challenge commercial buildings partners in reporting energy and water data from alternative (non-Portfolio Manager) software tools. All alternative tools must be reviewed and approved by DOE.

Annualized energy data for each property in the portfolio must be submitted to the Better Buildings Challenge in this template for the baseline period and to demonstrate progress every year (i.e., annual consumption must be provided for the 12 months ending December 2011, December 2012, etc.). New data should be added to the previously submitted spreadsheet, such that each submission includes a full record of progress over time.

General Instructions:

Fill in all required information on the appropriate tabs this worksheet. A list of all tabs and what they are used for is below. All column headers shown in red denote required data fields. Cells shaded in gray will populate automatically. The first row of each template shows example data. You may delete or overwrite the gray example text. Additional instructions are provided in the comments included on individual tabs. Please read the comments before entering data in those columns. Contact your Account Manager with any questions.

- Energy Data This is the standard template for data collection. Partners should use this tab to provided all necessary data related to the energy consumption at their non-residential properties.
- Multifamily Data This template is for Multifamily Partners. Use columns O, P, and Q to provide additional detail on the type of data available for each property.
- Food Service Data This template is intended for Food Service Partners to share energy and/or transaction data. Use column I to provide the total number of transactions at each property. If you are using Portfolio Manager to share energy data, please match the Property ID and Property Name in Portfolio Manager with columns A and B.
- Specialty Property Types (tabs highlighted in blue) Partners that would like to share data for any of the specialty property types listed below may do so using the fields provided in the blue tabs.
 - Data Center
 - Street Lights
 - Wastewater Treatment Plants
- Water Data This template is for Partners sharing water data. Columns are available to provide indoor and outdoor water consumption data. If your water meters at a property include both indoor and outdoor water, you may enter data in the Total Water Use column.
- Data Requirements Use this tab to provide more information on the data source that is being used to populate the energy templates.
- Property Types This tab provides a full list of eligible property types. If one of your properties does not fit in to one these categories, "Other" is also available.
- Source-Site Ratios This tab shows the current fuel specific conversion factors used to convert site energy to source energy.

Property Name	Property Owner			Type of Data (Weather- normalized or Adjusted)			Annual Site Electricity Use (kBtu/Sq. Ft.)	Annual Site Natural Gas Use (kBtu/Sq. Ft.)	Annual Site Other Fuel Usage (kBtu/Sq. Ft.)	Annual Site Other Fuel Usage (kBtu/Sq. Ft.)	Annual Total Site Energy Use (kBtu/Sq. Ft.)		Annual Energy Cost (US Dollars/Sq. Ft.)
Property 1	Company X	XXXXX	Healthcare - Medical Office	Weather-normalized	12/31/2010	9,999	88	99			187	380.27	\$5.25
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Property Name	Property Owner		Property Type	Type of Data (Weather- normalized or Adjusted)	Period Ending Date	Total Floor Space (Sq. Ft.)	Annual Site Electricity Use (kBtu/Sq. Ft.)	Annual Site Natural Gas Use (kBtu/Sq. Ft.)	Annual Site Other Fuel Usage (kBtu/Sq. Ft.)	Annual Site Other Fuel Usage (kBtu/Sq. Ft.)	Annual Total Site Energy Use (kBtu/Sq. Ft.)	Annual Total Source Energy Use (kBtu/Sq. Ft.)	Annual Energy Cost (US Dollars/Sq. Ft.)
Property 1	Company X	XXXXX	Lodging/Residential - Multifam	Weather-normalized	12/31/2010	50,000	88	99			187	380.27	\$3.45
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Property Name	Property Owner		Property Type	Type of Data (Weather- normalized or Adjusted)	Period Ending Date	Total Floor Space (Sq. Ft.)	Annual Transaction Count	Annual Site Electricity Use (kBtu)	Annual Site Natural Gas Use (kBtu)	Annual Site Other Fuel Usage (kBtu)	Annual Site Other Fuel Usage (kBtu)	Annual Total Site Energy Use (kBtu/Tran.)	Annual Total Source Energy Use (kBtu/Tran.)	Annual Energy Cost (US Dollars/Tran.)
Property 1	Company X	XXXXX	Food Sales & Services - Fast F	Non-normalized	12/31/2010	2,500	54,000	72,000	9,912			1.52	4.38	\$7.45
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Property Name	Property Owner		Property Type
Property 1	Company X	XXXXX	Technology/Science - Data Cer

	Period Ending Date		Space (Sq. Ft.)	Annual IT Energy Use (kWh)	Annual Total Data Center Site Electricity Use (kWh)
Weather-normalized	12/31/2010	Stand Alone	12,000	80,000	100,000

Fuel Usage	Annual Infrastructure Other Fuel Usage (kBtu)		Infrastructure	Annual Energy Cost (US Dollars/Sq. Ft.)
50,000		1.43	0.43	\$5.75
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0 71 1	Owner	Zipcode	Property Type	Type of Data (Metered or Unmetered)	Number of	Total Energy Demand per Pole (W)	Annual Hours of Operation	Annual Total Site Electricity Use (kWh)
100 W Street Lights - Region 2			Other	Metered	25			6,830
100 W Street Lights - Region 3			Other	Unmetered	20	120	2555	

Property Name	Property Owner	Zipcode	Property Type	Type of Data (Weather- normalized or Adjusted)	Period Ending Date	Average Flow (MGD)	Electricity Use	Annual Site Natural Gas Use (kBtu)	Annual Site Other Fuel Usage (kBtu)
Wastewater Treatment Plant 1			Utility - Wastewater Treatn	Non-normalized	12/31/2010	10	6,400,550		
Drinking Water Pump Station 1			Utility - Drinking Water & T	Non-normalized	12/31/2010	12	9,850,360		

Property Name	Property Owner	Zipcode	Property Type	Period Ending Date
Property 1	Company X	XXXXX	Healthcare - Medical Office	12/31/2010

		Annual Outdoor	Water Use	Water Intensity	Annual Indoor Water Cost (US Dollars)
50,000	265	80	345	5.3	

Annual Outdoor Water Cost (US Dollars)	Total Annual Water Cost (US Dollars)
	\$3.12

To obtain approval to use an alternative software tool, a Partner must provide a description of the tool used, as well as sai illustrating that the tool generates all of the necessary metrics. The description of the tool should include general informa name, tool developer, etc.) and must answer the following questions:

1) How does the tool annualize energy data?

Data should be provided as annualized totals every six months (e.g. annual consumption should be provided for the 12 module 2012, December 2012, June 2013, etc.)

To generate annualized totals from monthly bills, does the tool 1) normalize actual billing periods to calendar months, 2) a use to the month it was billed in, 3) assign energy use to the month in which most energy was used, or 4) follow another p

2) How does the tool calculate Site and/or Source EUI in kBtu/square foot?

DOE will track EUI in terms of source energy. The Partner can either provide Source EUI values, or can provide fuel-specifi values that can be converted by DOE.

What conversion factors are used to generate Site Energy values? Source Energy values?

3) How does the tool calculate Weather Normalized EUI?

Describe the algorithms used, weather stations utilized, and the time period of weather data used for normalization.

4) If applicable, how does the tool calculated Adjusted EUI?

What operating characteristics are adjusted for? How are the adjustments calculated?

5) What checks are performed to ensure that data is complete and accurate?

The list of properties below is from EPA's Portfolio Manager, a select the property type that best represents your property. I represents more than 50% of the floor area, choose "Other".

For more information on property types, visit: https://www.energystar.gov/buildings/facility-owners-and-m

Or view the Portfolio Manager online help page here: http://

<u>List of Portfolio Manager Property Types</u>

Banking/Financial Services - Bank Branch

Banking/Financial Services - Financial Office

Education - Adult Education

Education - College/University

Education - K-12 School

Education - Pre-school/Daycare

Education - Vocational School

Education - Other

Entertainment/Public Assembly - Convention Center

Entertainment/Public Assembly - Movie Theater

Entertainment/Public Assembly - Museum

Entertainment/Public Assembly - Performing Arts

Entertainment/Public Assembly - Bowling Alley

Entertainment/Public Assembly - Fitness Center/Health Center

Entertainment/Public Assembly - Ice/Curling Rink

Entertainment/Public Assembly - Roller Rink

Entertainment/Public Assembly - Swimming Pool

Entertainment/Public Assembly - Other

Entertainment/Public Assembly - Social/Meeting Hall

Entertainment/Public Assembly - Indoor Arena

Entertainment/Public Assembly - Race Track

Entertainment/Public Assembly - Stadium (Closed)

Entertainment/Public Assembly - Stadium (Open)

Entertainment/Public Assembly - Aquarium

Entertainment/Public Assembly - Bar/Nightclub

Entertainment/Public Assembly - Casino

Entertainment/Public Assembly - Zoo

Property Type

an online tool used to track building energy usage. On the Data Reporting Template or Community Partner f your property consists of multiple types, select the one that represents more than 50% of the floor area.

anagers/existing-buildings/use-portfolio-manager/identify-your-property-type

portfoliomanager.supportportal.com/ics/support/default.asp?deptID=23010

Food Sales & Services - Convenience Store with Gas Station **Public Services - Courthouse** Food Sales & Services - Convenience Store without Gas Station **Public Services - Fire Station**

Food Sales & Services - Fast Food Restaurant

Food Sales & Services - Restaurant Food Sales & Services - Other

Food Sales & Services - Supermarket/Grocery Store Food Sales & Services - Wholesale Club/Supercenter

Healthcare - Ambulatory Surgical Center

Healthcare - Hospital (General Medical & Surgical)

Healthcare - Other

Healthcare - Medical Office

Healthcare - Outpatient Rehabilitation/Physical Therapy

Healthcare - Senior Care Community

Healthcare - Urgent Care/Clinic/Other Outpatient

Lodging/Residential - Barracks Lodging/Residential - Hotel

Lodging/Residential - Multifamily Housing Lodging/Residential - Prison/Incarceration Lodging/Residential - Residence Hall/Dormatory Lodging/Residential - Single Family Home

Lodging/Residential - Other Manufacturing/Industrial Plant

Office - Office

Office - Medical Office Office - Veterinary Office

Office - Other

Other **Parking** **Public Services - Library**

Public Services - Mailing Center/Post Office

Public Services - Police Station

Public Services - Transportation Terminal/Statio

Public Services - Other **Religious Worship Facility**

Retail - Retail Store

Retail - Automobile Dealership

Retail - Enclosed Mall Retail - Lifestyle Center Retail - Strip Mall Retail - Other

Services - Personal Services (Health/Beauty, Dry Services - Repair Services (Vehicle, Shoe, Locksn

Services - Other

Technology/Science - Data Center Technology/Science - Laboratory Technology/Science - Other

Warehouse/Storage - Self-Storage Facility

Warehouse/Storage - Non-refrigerated Wareho Warehouse/Storage - Refrigerated Warehouse Warehouse/Storage - Distribution Center Utility - Drinking Water & Treatment Plant

Utility - Energy/Power Station

Utility - Wastewater Treatment Plant

Utility - Other

s Template, please If no one type

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Source-Site Ratios for all Portfolio Manager Fuels				
Fuel Type	Source-Site Ratio			
Electricity (Grid Purchase)	3.14			
Electricity (on-Site Solar or Wind Installation)	1.00			
Natural Gas	1.05			
Fuel Oil (1,2,4,5,6,Diesel, Kerosene)	1.01			
Propane & Liquid Propane	1.01			
Steam	1.20			
Hot Water	1.20			
Chilled Water	1.00			
Wood	1.00			
Coal/Coke	1.00			
Other	1.00			