ENERGY STAR® Data Verification Checklist

90

ENERGY STAR ® Score[1]

Efficiency Tower

Registry Name: Efficiency Tower
Property Type: Office
Gross Floor Area (ft²): 150,000
Built: 2016

For Year Ending: 09/30/2017
Date Generated: 10/27/2017

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
Efficiency Tower 717 Green Street Oakland, California 94612	_____ , (____)____-_____	____ _____ , (____)____-_____ _____

Property ID: 6094968

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** Efficiency Tower ☐ Yes ☐ No

Is this the official name of the property?

If "No", please specify: _____

2) **Property Type:** Office ☐ Yes ☐ No

Is this an accurate description of the primary use of this property?

3) **Location:** ☐ Yes ☐ No

717 Green Street
Oakland, California 94612

Is this correct and complete?

4) **Gross Floor Area:** 150,000 ft² ☐ Yes ☐ No

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If “no” please specify what space has been excluded.

5) Average Occupancy (%): 95

Is this occupancy percentage accurate for the entire 12 month period being assessed? ☐ **Yes** ☐ **No**

6) Number of Buildings: 1

Does this number accurately represent all structures? ☐ **Yes** ☐ **No**

Notes:

Indoor Environmental Standards

1) Ventilation for Acceptable Indoor Air Quality

Does this property meet the minimum ventilation rates according to ANSI/ASHRAE Standard 62.1, Ventilation for Acceptable Indoor Air Quality? ☐ **Yes** ☐ **No**

2) Acceptable Thermal Environmental Conditions

Does this property meet acceptable thermal environmental conditions according to ANSI/ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy? ☐ **Yes** ☐ **No**

3) Adequate Illumination

Does this property meet the minimum illumination levels as recommended by the Illuminating Engineering Society of North America (IESNA) Lighting Handbook? ☐ **Yes** ☐ **No**

Notes:

2. Review of Property Use Details

Office: Vacant Office

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 20,000

Is this the total size, as measured between the outside surface of the exterior walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☐ Yes ☐ No

2) Weekly Operating Hours: 0

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the HVAC system is starting up or shutting down, or when property is occupied only by maintenance, security, cleaning staff, or other support personnel. For properties with a schedule that varies during the year, use the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 0

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ Yes ☐ No

4) Number of Computers: 0

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ Yes ☐ No

Notes:

Office: Occupied Office

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 120,000

Is this the total size, as measured between the outside surface of the exterior walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☐ **Yes** ☐ **No**

2) Weekly Operating Hours: 68

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the HVAC system is starting up or shutting down, or when property is occupied only by maintenance, security, cleaning staff, or other support personnel. For properties with a schedule that varies during the year, use the schedule most often followed.

☐ **Yes** ☐ **No**

3) Number of Workers on Main Shift: 300

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ **Yes** ☐ **No**

4) Number of Computers: 315

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ **Yes** ☐ **No**

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ **Yes** ☐ **No**

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ **Yes** ☐ **No**

Notes:

Data Center: Data Center Use

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 10,000

Is this the total size, as measured between the outside surface of the exterior walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☐ **Yes** ☐ **No**

2) IT Energy Configuration: Uninterruptible Power Supply (UPS) supports only IT Equipment (preferred)

Does the IT Energy Configuration selected describe how the IT load is powered? This will determine where IT Energy must be measured to earn an ENERGY STAR score for a Data Center. The preferred location of this measurement is at the output of the Uninterruptible Power Supply (UPS) meter. Please refer to the definition of IT Energy for other meter locations which are permitted under certain conditions when UPS readings are not available.

☐ **Yes** ☐ **No**

3) UPS System Redundancy: N+1

Is this the redundant capacity of the Uninterruptible Power Supply (UPS) in the Data Center? Redundant components are typically required to accommodate IT loads in the event of UPS equipment failure. The specific level of redundancy will depend on your particular Data Center. If there is no UPS system, indicate the redundancy for the PDU Meters that support the IT load. If there are multiple systems operating at different levels of redundancy, choose the option that applies to the majority of the IT load.

☐ **Yes** ☐ **No**

4) Cooling Equipment Redundancy: N+1

Is this the redundant capacity of the cooling in a Data Center? Redundant components are typically required to keep the Data Center up and running in the event of cooling equipment failure. The specific level of redundancy will depend on your particular Data Center. If there are multiple systems operating at different levels of redundancy, choose the option that applies to the majority of the data center cooling load.

☐ **Yes** ☐ **No**

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary	
Electric - Grid (kBtu)	5,710,757.9 (100%)
Total Energy (kBtu)	5,710,757.9
Energy Intensity	
Site (kBtu/ft²)	38.1
Source (kBtu/ft²)	119.5

National Median Comparison	
National Median Site EUI (kBtu/ft²)	67.2
National Median Source EUI (kBtu/ft²)	211.1
% Diff from National Median Source EUI	-43.4%
Emissions (based on site energy use)	
Greenhouse Gas Emissions (Metric Tons CO2e)	433.1

Power Generation Plant or Distribution Utility:
Pacific Gas & Electric Co

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Whole Building Electric Meter	Electric	01/01/2016	In Use	Efficiency Tower
Data Center	Uninterruptible Power Supply (UPS) Output Energy	01/01/2016	In Use	Data Center Use

Total Energy Use ☐ **Yes** ☐ **No**

Do the meters shown above account for the total energy use of this property during the reporting period of this application?

Additional Fuels ☐ **Yes** ☐ **No**

Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded.

On-Site Solar and Wind Energy ☐ **Yes** ☐ **No**

Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported.

Notes:

Electric Meter: Whole Building Electric Meter (kWh (thousand Watt-hours))

Associated With: Efficiency Tower

Start Date	End Date	Usage	Green Power?
09/13/2016	10/13/2016	150,011	No
10/14/2016	11/15/2016	144,427	No
11/16/2016	12/16/2016	139,804	No
12/17/2016	01/16/2017	135,905	No
01/17/2017	02/15/2017	122,661	No
02/16/2017	03/14/2017	114,534	No
03/15/2017	04/15/2017	197,832	No
04/16/2017	05/14/2017	135,572	No
05/15/2017	06/16/2017	162,783	No
06/17/2017	07/14/2017	116,926	No
07/15/2017	08/16/2017	136,860	No
08/16/2017	09/13/2017	139,976	No
09/14/2017	10/14/2017	115,866	No
	Total Consumption (kWh (thousand Watt-hours)):		1,813,157
	Total Consumption (kBtu (thousand Btu)):		6,186,491.7

Total Energy Consumption for this Meter

☐ **Yes** ☐ **No**

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

Notes:

Uninterruptible Power Supply (UPS) Output Energy Meter: Data Center (kWh (thousand Watt-hours))

Associated With: Data Center Use

Start Date	End Date	Usage
10/01/2016	10/31/2016	6,330

Start Date	End Date	Usage
11/01/2016	11/30/2016	6,725
12/01/2016	12/31/2016	6,796
01/01/2017	01/31/2017	6,795
02/01/2017	02/28/2017	6,271
03/01/2017	03/31/2017	6,799
04/01/2017	04/30/2017	6,756
05/01/2017	05/31/2017	6,686
06/01/2017	06/30/2017	6,637
07/01/2017	07/31/2017	6,764
08/01/2017	08/31/2017	6,430
09/01/2017	09/30/2017	6,781
	Total Consumption (kWh (thousand Watt-hours)):	79,770
	Total Consumption (kBtu (thousand Btu)):	272,175.2

Total Energy Consumption for this Meter

☐ **Yes** ☐ **No**

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited this site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional

____ _____
,
(____)____-_____
_____

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

Professional Engineer Stamp
(if applicable)