

The following forms are the minimum required reporting requirements for Level 1 and Level 2 Energy Audits.

All sheets labeled "All" are to be completed for Level 1, 2, and 3 Energy Audits

All sheets labeled "L1" are to be completed for Level 1 Energy Audits

All sheets labeled "L2" are to be completed for Level 2 and Level 3 Energy Audits

user input	Cells shown in blue highlight like this require user input.
calculated	Cells shown in green highlight will update automatically.
*	Cells shown with an asterisk are required inputs for the Asset Score tool.

The reporting forms may be duplicated and modified to adapt to unique combinations of fuel sources, onsite generation, or delivered energy.

Set Units below to IP or SI, forms will update accordingly.

Units

Specific Notes on Select Tabs

All - Annual Summary

Formulas under "Total Annual Use" column prorate the energy use to a full calendar year (365 days). This is done to correct for differences between utility bill data and expected actual usage.

All - Metered Energy

Explanation of the 'Days' calculation: Utilities will often report usage from midnight to midnight; but sometimes they will take a reading at a specific time of day. In the latter case, the end date will match the start date of the following month's bill. But in the former case, the end date of one bill will be offset by one day in the following month's bill. The formula simultaneously accounts for both the former and the latter case. User to modify formula if incorrect for application.

All Audit Levels - Building Characteristics

Building Name*	ASHRAE HQ	user input
Building Owner	ASHRAE, Inc.	calculated
Energy Auditor	Mike Vaughn	
Street*	1791 Tullie Circle	
City*	Atlanta	
State*	GA	
Postal Code*	30329	
Date of site visit(s)	06-04-2013	
Primary Building use type*	Other office	
Client Name		
Key Contact		

Gross floor area*	34,721	sq ft
Total Number of Floors	2	
Total conditioned area	31,126	sq ft
Conditioned area (heated only)		sq ft
Conditioned area (cooled only)		sq ft
Conditioned Floors Above grade*	2	
Conditioned Floors Below grade	-	

Year of construction*	1965
Last Renovation*	
Year of Prior Energy Audit	
Year Last Commissioned	
Building automation system? (Y/N)	
Historical landmark status? (Y/N)	
Percent owned (%)	
Percent leased (%)	

Spaces excluded from gross floor area:

Space Function*	Floor Area	%
Total	-	

Occupancy*

Typical occupancy

Typical occupancy

Typical number of occupants (during occ hours)

Number of Dwelling Units in Building (Multifamily Only)

% of Dwelling Units currently Occupied (Multifamily Only)

Average	hours/week
	weeks/year

Energy Sources**

Energy Source	ID	Type	Rate schedule
Electricity			
Electricity			
Natural gas			
Chilled Water			
Hot Water			
Fuel Oil			
Steam			
Renewable Energy			
Other			

The rate structures under which energy is purchased shall be reported including the following: utility service classification, marginal rates, incremental block rate structures, demand components, ratchets, seasonal, time-of-use, real-time rates, penalties for reduced consumption, interruptible rates, taxes, fuel cost adjustments, and other surcharges. These need not be spelled out individually, but a statement shall be made confirming all such applicable taxes and adjustments have been factored into the energy rate computations.

Facility Description - Notable Conditions

The ASHRAE headquarters is slab on grade one and two story steel frame structure. The two story portion of the building, original structure prior to renovation, has an exterior brick core with infill with glass curtain wall system. The one story addition is also slab on grade with an insulated metal panel exterior. Both the first and second story roof systems are insulated with white TPO single membrane roofs. Green intensive plant modules overlayed roof of the main entrance vestibule and roof of the learning center, which constitutes the first floor addition of the Headquarters.

* For buildings with multiple main type uses report for predominant use type

** Cells shown with an asterisk are required inputs for the Asset Score tool.

All Audit Levels - Metered Energy

user input
calculated

[illegible]

Utility #1	Electricity
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MAIN DATA FOR ANALYSIS - Electricity						
Start Date	End Date	Days	Electricity Use (kWH)	Electricity Peak (kWH)	Electricity Cost (\$)	Electricity Load Factor
12/4/2012	1/4/2013	31	26,880		\$ 3,508	#DIV/0!
11/2/2012	12/4/2012	33	26,882		\$ 3,468	#DIV/0!
10/4/2012	11/2/2012	30	28,322		\$ 3,520	#DIV/0!
9/4/2012	10/4/2012	31	30,360		\$ 3,629	#DIV/0!
8/4/2012	9/4/2012	32	35,763		\$ 4,066	#DIV/0!
7/4/2012	8/3/2012	31	36,120		\$ 4,191	#DIV/0!
6/3/2012	7/4/2012	32	33,842		\$ 3,810	#DIV/0!
5/2/2012	6/3/2012	33	31,920		\$ 3,698	#DIV/0!
4/2/2012	5/2/2012	31	29,643		\$ 3,627	#DIV/0!
3/5/2012	4/2/2012	29	29,640		\$ 3,588	#DIV/0!
2/3/2012	3/5/2012	32	27,963		\$ 3,542	#DIV/0!
1/5/2012	2/3/2012	30	28,320		\$ 3,597	#DIV/0!
Annual Total		375	365,655	-	\$ 44,243	

Utility #1: Definition

Units	kWH
kBtu/unit	3.413

Utility #2 0

[illegible]

Guidance on the terms "Main Data for Analysis" and "Supporting Ancillary Use Data"

Main Data for Analysis - Filling in these tables is mandatory, and the data in these tables will be referenced throughout the rest of the forms, such as the End Use Breakdown, Annual Summary, and QA/QC

Supporting Annual Use Data - Filling in these tables is only required if the auditor is using more than 12 months of consecutive data. This supporting data from historical energy use can be used to inform the Main Data for Analysis.

Summary info for graphs [do not print]							
MAIN DATA FOR ANALYSIS - Use per Day							
Total Cost (\$)	Electricity kWh/Day	Utility #1 Energy/Day	Utility #3 Energy/Day	Electricity kBTU/day	0 kBTU/day	0 kBTU/day	total
\$ 3,508		#DIV/0!	#DIV/0!	2,959	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,468	815	#DIV/0!	#DIV/0!	2,780	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,520	944	#DIV/0!	#DIV/0!	3,222	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,629	979	#DIV/0!	#DIV/0!	3,343	#DIV/0!	#DIV/0!	#DIV/0!
\$ 4,066		#DIV/0!	#DIV/0!	3,814	#DIV/0!	#DIV/0!	#DIV/0!
\$ 4,191	1,111	#DIV/0!	#DIV/0!	3,977	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,810	1,058	#DIV/0!	#DIV/0!	3,609	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,698	967	#DIV/0!	#DIV/0!	3,301	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,527	956	#DIV/0!	#DIV/0!	3,264	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,588	1,022	#DIV/0!	#DIV/0!	3,488	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,542	874	#DIV/0!	#DIV/0!	2,982	#DIV/0!	#DIV/0!	#DIV/0!
\$ 3,597	944	#DIV/0!	#DIV/0!	3,222	#DIV/0!	#DIV/0!	#DIV/0!
44,27							#DIV/0!

* Enter name and units for Energy type X. Use terms from ASHRAE Standard 105 as appropriate (listed below)

* Insert additional columns if there are more than 3 energy types and modify summary table as needed

If cogeneration or CHP systems supply the building and are outside the building boundary, then the energy supplied will be hot water, steam, chilled water, and/or electricity that are accounted for as Energy Type X in this table. If that system is inside the building boundary, then the energy supplied will be natural gas that is entered into this table.

		0		
Annual Total		0	-	\$ -

Utility #2: Definition

Units	
kBtu/unit	

Utility #3 0

MAIN DATA FOR ANALYSIS - 0				
Start Date	End Date	Days	Utility #3 Energy	Utility #3 Cost (\$)
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
Annual Total		0	-	\$ -

Utility #3: Definition

Units	
kBtu/unit	

All Audit Levels - Annual Summary

Existing Building

kBTU

user input

calculated

1

Energy Type	Total Annual Use*	Units	Conversion Multiplier	Thousands BTU (kBtu)	Total Annual Cost (\$)
Electricity					
Natural Gas					
Purchased Steam					
Purchased Hot Water					
Purchased Chilled Water					
Oil					
Propane					
Coal					
Other					
Thermal - On-Site Generated					
Electricity - On-Site Generated					
Thermal or Electricity - Exported					
Total				-	\$ -

Existing Building EUI/ECI

Building Name	AL IR, HQ
Gross Conditioned Square Feet	34,711
EUI (energy use intensity or kBtu/sf/yr)	0.0
ECI (energy cost index or \$/sf/yr)	-

Benchmarking & Target EUI/ECI

Benchmark Source	e.g., ENERGY STAR Site EUI	
Benchmark EUI (kBtu/sf)	180.0	0
Target EUI (kBtu/sf)	110.0	
Target ECI (\$/sf)		
Annual Energy Savings to Reach Target	2,430,470	kBTU
Annual Cost Savings to Reach Target		(if available)

Notes:

All Audit Levels - Delivered Energy

Delivered Energy Type (if applicable)	Oil
Units	gallons (Fuel Oil #2)
Conversion to kBTU	

365655	kWh	3.413	1247980.515	#
				user input
				calculated
1/15/1913				

Annual Summary Totals

Estimated Annual Use**	200	gallons (Fuel Oil #2)
Estimated Annual Energy	#VALUE!	kBTU
Unit Rate of Fuel	#VALUE!	/gallon (Fuel Oil #2)
Estimated Annual Cost	#VALUE!	

**Auditor to estimate the annualized use, which may differ from delivered quantities.
Enter additional table for other delivered energy types and modify summary table as needed
Enter additional rows for more quantities

All Audit Levels - Sample Energy Graphs

[these graphs are samples only - not required formats. Choose the presentation of data that is the most useful for your site]

SAMPLE REPORT

All Audit Levels - Space Function Breakdown

For areas comprising > 20% of gross floor area

Space Number	A	B	C	D	E	Accounted
Function type*						
Original intended use						
Gross Floor Area*(per space)						
Conditioned Area* (Approx % of total function space)						
Number of Occupants						
Approximate Plug Loads (W/sf)						
Use (hours/week)						
Use (weeks/year)						
Principal HVAC Type*						
Principal Lighting Type*						

* Cells shown with an asterisk are required for the ASHRAE 90.1-2010.

NOTE - It is permitted to enter "N/A" into fields where it is both unfeasible to gather such information and outside the scope of the audit. e.g., The W/sf in tenant occupied spaces that are not part of the audit scope.

Level 1 Audit - Recommended Energy Efficiency Measure Summary

[illegible]