

# Energy Budget Field Data Sheet

Date:		Analyst/Rater:		Cert #:		Climate Zone:		
Owner Information								
Customer Name:								
Company Address:								
Mailing Address:								
City:				State:			Zip:	
Home Phone:				Cell Phone:				
Work Phone:								
Email:								
Project Information								
Owner Name:								
Project Address:								
Mailing Address:								
City:				State:			Zip:	
Home Phone:				Cell Phone:				
Work Phone:								
Email:								
Site Contact Information								
Property Manager:								
Phone:				E-mail:				
Maintenance Manager:								
Phone:				E-mail:				
Superintendent:								
Phone:				E-mail:				
Project Characteristics								
	# Occupants	Year Built	# Floors	Climate Zone				
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
<b>Project Area</b>	Total building	Residential units	Common/non-res	Landscaping	Total site area			
Square Footage:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
	# of Buildings	# Rental Units	# Ownership Units	Total # of Units				
Low-rise (<= 3 stories):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
High-rise (>=4 stories):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
	< 50% AMI	50-80% AMI	> 80% AMI	Market Rate				
Number of units:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
	Electricity Service	Gas Service	Water	Space Heat	Domestic Hot Water			
Individual or central:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
<b>The following characteristics apply to the project (Check all that apply):</b>								
<input type="checkbox"/>	Historic preservation	<input type="checkbox"/>	Tenant relocation required during construction					
<input type="checkbox"/>	Community facilities	<input type="checkbox"/>	Whole building rehab					
<input type="checkbox"/>	Live/work	<input type="checkbox"/>	Partial Building rehab					
<input type="checkbox"/>	Assisted living	<input type="checkbox"/>	Building is occupied					
<input type="checkbox"/>	Senior living	<input type="checkbox"/>	Rehab units at tenant turnover					
<input type="checkbox"/>	Homeless	<input type="checkbox"/>	Rehab at Acquisition					
<input type="checkbox"/>	Other							

# Energy Budget Field Data Sheet

Site Visit Preparation & Interview																
<p><b>Owner Preparation:</b></p> <input type="checkbox"/> Owner notify Residents/Tenants <input type="checkbox"/> Reps from Property Management attend kick-off meeting <input type="checkbox"/> Facilities staff available to answer O&M questions	<p><b>Auditor Preparation and Requests:</b></p> <input type="checkbox"/> View As-Built Drawings & Specs <input type="checkbox"/> Physical Needs Assessments within the past 10 years <input type="checkbox"/> Description of improvements within past 5 years <input type="checkbox"/> Any scope feasibility assessments already conducted <input type="checkbox"/> Operations & Maintenance records/logs/protocols <input type="checkbox"/> HVAC equipment and control systems info <input type="checkbox"/> Pest management info (MSDS sheets)															
<p><b>Owner Preparation:</b></p> <input type="checkbox"/> Mechanical rooms & all HVAC DHW & generation equipment <input type="checkbox"/> Elevator Rooms, Basement, Attic & Commercial Spaces <input type="checkbox"/> Sampling of residential units <input type="checkbox"/> Recycling Waste Disposal areas	<p><b>Does Building Management notice or receive complaints of any of the following indicators?:</b></p> <table style="width:100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> Cold rooms?</td> <td style="width: 33%;"><input type="checkbox"/> Odors?</td> <td style="width: 33%;"><input type="checkbox"/> Child or elderly health?</td> </tr> <tr> <td><input type="checkbox"/> Hot rooms?</td> <td><input type="checkbox"/> Humidity?</td> <td><input type="checkbox"/> Moisture damaged areas?</td> </tr> <tr> <td><input type="checkbox"/> Drafts?</td> <td><input type="checkbox"/> Respiratory problems?</td> <td><input type="checkbox"/> Condensation on windows?</td> </tr> <tr> <td><input type="checkbox"/> Doors slamming?</td> <td><input type="checkbox"/> Dust?</td> <td><input type="checkbox"/> Substantial number of comfort complaints?</td> </tr> </table>				<input type="checkbox"/> Cold rooms?	<input type="checkbox"/> Odors?	<input type="checkbox"/> Child or elderly health?	<input type="checkbox"/> Hot rooms?	<input type="checkbox"/> Humidity?	<input type="checkbox"/> Moisture damaged areas?	<input type="checkbox"/> Drafts?	<input type="checkbox"/> Respiratory problems?	<input type="checkbox"/> Condensation on windows?	<input type="checkbox"/> Doors slamming?	<input type="checkbox"/> Dust?	<input type="checkbox"/> Substantial number of comfort complaints?
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<input type="checkbox"/> Hot rooms?	<input type="checkbox"/> Humidity?	<input type="checkbox"/> Moisture damaged areas?														
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<input type="checkbox"/> Doors slamming?	<input type="checkbox"/> Dust?	<input type="checkbox"/> Substantial number of comfort complaints?														
Operations & Maintenance																
<input type="checkbox"/> Overheating motors, excessive motor cycling <input type="checkbox"/> Malfunctioning dampers or actuators <input type="checkbox"/> Malfunctioning or commonly over-ridden thermostat programs <input type="checkbox"/> Trouble maintaining hot water supply temperatures <input type="checkbox"/> Leaky or faulty valves, pumps, pipe connections <input type="checkbox"/> Leaky hydronic coils <input type="checkbox"/> Terminal units: noisy operation, inadequate or too much air flow <input type="checkbox"/> Improper/malfunctioning EMS controls <input type="checkbox"/> Inaccurate or faulty sensors, zone level thermostats. Improper sensor location <input type="checkbox"/> Trouble maintaining supply air temperatures <input type="checkbox"/> Malfunctioning lighting controls: occupancy sensors, sweeps <input type="checkbox"/> Malfunctioning equipment: air conditioners, exhaust fans, ventilation system, pumps, chillers, boilers	<input type="checkbox"/> Set-back temperatures? <input type="checkbox"/> Stratification? <input type="checkbox"/> Storage of cleaning products? <input type="checkbox"/> Closed supply vents? <input type="checkbox"/> Radiant temperature? <input type="checkbox"/> Open windows?															
Schedule & Financial Readiness																
<p><b>Info below is as of (month/year):</b> <span style="border: 1px solid black; display: inline-block; width: 150px; height: 15px; vertical-align: middle;"></span></p>																
<b>Project Status</b>	<b>Expected Start Date</b>	<b>Expected Completion Date</b>														
Secure Financing																
Schematic Design																
Design Development																
Mechanical Electrical Drawings/T-24																
Construction Documents																
Building Permit																
Construction																
<b>Applying for:</b>	<b>Yes/No</b>	<b>Name Description</b>	<b>Application Date:</b>	<b>Award Date:</b>												
Green Building Program																
Utility Incentive Program																
TCAC/CDLAC																
HUD Funding																
Investor Commitment																
Weatherization Funding																
Other Loans																
Interest Rate																
Years																
Present Value Factor																

# Energy Budget Field Data Sheet

Energy Analysis Summary				
	Baseline	Post-Project	Change	% change
Peak Demand (kW)				
Annual kWh				
Annual therms				
Annual Elec Cost				
Annual Gas Cost				
Total Energy Cost				
Gross Measure Cost				
Annualized Incremental O&M Costs (Savings)				
Incentives				
Net Cost				

Conditioned Space Summary								
Average Floor Height								
Ground Floor		sq.ft.		ft.	Total Conditioned Area		0	sq. ft
Second Floor		sq.ft.		ft.	Conditioned Volume		0	ft <sup>3</sup>
Third Floor		sq.ft.		ft.	Front Orientation:			° from North
Fourth Floor		sq.ft.		ft.	Indoor temp:			° F
Fifth Floor		sq.ft.		ft.	Indoor Rh:			° F/
Sixth Floor		sq.ft.		ft.	Summer Temp Target:			° F
Seventh Floor		sq.ft.		ft.	Winter Temp Target:			° F
Eighth Floor		sq.ft.		ft.	Wind Speed			

Building Exterior Inspection						
Attached garage:		Peeling paint		Siding type:		Standing water
Attic ventilation		Roof color:		Site slope		Sump Pump
Downspouts		Roof Condition		Soil touching siding		Water stains
Drainage		Roof type:		Solar gain		
Gutters		Rot		Sprinkler stains		

# Energy Budget Field Data Sheet

Date: \_\_\_\_\_

Client: \_\_\_\_\_

## Utility And Renewables

Gas Utility:	
Account Number:	
Electrical Utility:	
Account Number:	
Water Utility:	
Account Number:	

Rate Schedule:
Rate Schedule:

		Gas		Electric		Comments:
Months		Therms	Cost	kWh	Cost	
Jan. (1)						
Feb. (2)						
Mar. (3)						
April (4)						
May (5)						
June (6)						
July (7)						
Aug. (8)						
Sept. (9)						
Oct. (10)						
Nov. (11)						
Dec. (12)						
<b>Total</b>						
Total (4 lowest)						
Baseline (Adjusted)						

## Solar

<input type="checkbox"/>	Examine Site for Solar PV or Solar Water Potential
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**Solar Space Heating:**

Net Solar Fraction:  %

**Solar Domestic Water:**

Net Solar Fraction:  %

**Electricity Production:**

DC Rating:  kW

TDV:  kBtu/ft<sup>2</sup>/yr

Month	kWh Production	kW Demand	Cost
January			
February			
March			
April			
May			
June			

Month	kWh Production	kW Demand	Cost
July			
August			
September			
October			
November			
December			

# Energy Budget Field Data Sheet

Date:

Client:

Furnace 1									
Brand:					Model:				
Serial:				Age:		Input BTU:		Output BTU:	
Draft Type:		Natural	Induced	Sealed		AFUE:		Location:	

Furnace 2									
Brand:					Model:				
Serial:				Age:		Input BTU:		Output BTU:	
Draft Type:		Natural	Induced	Sealed		AFUE:		Location:	

Furnace 3									
Brand:					Model:				
Serial:				Age:		Input BTU:		Output BTU:	
Draft Type:		Natural	Induced	Sealed		AFUE:		Location:	

Air Conditioner/ Heat Pump 1									
Outdoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	SEER:		EER:	COP:	HSPF:	Line set condition (insulation):			
Indoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	TXV:								
Filter Type: None <input type="checkbox"/> Disposable <input type="checkbox"/> Pleated <input type="checkbox"/> Electrostatic <input type="checkbox"/> HEPA <input type="checkbox"/> MERV # <input type="text"/>									
Filter Condition: Clean <input type="checkbox"/> Moderate <input type="checkbox"/> Dirty <input type="checkbox"/> Clogged <input type="checkbox"/>									

Air Conditioner/ Heat Pump 2									
Outdoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	SEER:		EER:	COP:	HSPF:	Line set condition (insulation):			
Indoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	TXV:								
Filter Type: None <input type="checkbox"/> Disposable <input type="checkbox"/> Pleated <input type="checkbox"/> Electrostatic <input type="checkbox"/> HEPA <input type="checkbox"/> MERV # <input type="text"/>									
Filter Condition: Clean <input type="checkbox"/> Moderate <input type="checkbox"/> Dirty <input type="checkbox"/> Clogged <input type="checkbox"/>									

Air Conditioner/ Heat Pump 3									
Outdoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	SEER:		EER:	COP:	HSPF:	Line set condition (insulation):			
Indoor Unit	Brand:					Model:			
	Age:		Size (Ton) Indoor Coil:		Condition:				
	TXV:								
Filter Type: None <input type="checkbox"/> Disposable <input type="checkbox"/> Pleated <input type="checkbox"/> Electrostatic <input type="checkbox"/> HEPA <input type="checkbox"/> MERV # <input type="text"/>									
Filter Condition: Clean <input type="checkbox"/> Moderate <input type="checkbox"/> Dirty <input type="checkbox"/> Clogged <input type="checkbox"/>									



# Energy Budget Field Data Sheet

Date:

Client:

## Exterior Wall Inspection

<b>Wall 1</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 2</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 3</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 4</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 5</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 6</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

<b>Wall 7</b>	Insulation Type: <input style="width: 200px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Orientation: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 200px;" type="text"/>	Location: <input style="width: 120px;" type="text"/>	
	Construction Type: <input style="width: 200px;" type="text"/>	Other Details: _____	
	Wall Finish: <input style="width: 200px;" type="text"/>	_____	

# Energy Budget Field Data Sheet

Date:

Client:

## Attic

Area 1	Insulation Type: <input style="width: 150px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Temperature °F: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 150px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>	Humidity %: <input style="width: 80px;" type="text"/>
	Radiant Barrier: YES <input type="checkbox"/> NO <input type="checkbox"/> If YES Continuous? <input style="width: 50px;" type="text"/>		Access Location / Size: Height: <input style="width: 100px;" type="text"/>
	Over Skip Sheathing? <input style="width: 50px;" type="text"/>		Knob and Tube Wiring <input style="width: 80px;" type="text"/>
Kneewall Insulation: YES <input type="checkbox"/> NO <input type="checkbox"/>		Insulation Type: <input style="width: 150px;" type="text"/>	
		R-Value/Thickness: <input style="width: 150px;" type="text"/>	

Area 2	Insulation Type: <input style="width: 150px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 150px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>

Area 3	Insulation Type: <input style="width: 150px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>
	R-Value/Thickness: <input style="width: 150px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>

## Roof

Area A	Truss: <input type="checkbox"/>	Square feet: <input style="width: 80px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>	
	Insulation Type: <input style="width: 150px;" type="text"/>		R-Value/Thickness: <input style="width: 100px;" type="text"/>	
<input type="checkbox"/> <5#/ft <sup>2</sup> <input type="checkbox"/> 10#/ft <sup>2</sup> <input type="checkbox"/> 15#/ft <sup>2</sup> <input type="checkbox"/> 20#/ft <sup>2</sup> <input type="checkbox"/> 25#/ft <sup>2</sup>		CRRC: <input style="width: 40px;" type="text"/>	E= <input style="width: 40px;" type="text"/>	R= <input style="width: 40px;" type="text"/>

Area B	Rafter: <input type="checkbox"/>	Square feet: <input style="width: 80px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>	
	Insulation Type: <input style="width: 150px;" type="text"/>		R-Value/Thickness: <input style="width: 100px;" type="text"/>	
<input type="checkbox"/> <5#/ft <sup>2</sup> <input type="checkbox"/> 10#/ft <sup>2</sup> <input type="checkbox"/> 15#/ft <sup>2</sup> <input type="checkbox"/> 20#/ft <sup>2</sup> <input type="checkbox"/> 25#/ft <sup>2</sup>		CRRC: <input style="width: 40px;" type="text"/>	E= <input style="width: 40px;" type="text"/>	R= <input style="width: 40px;" type="text"/>

Area C	—: <input type="checkbox"/>	Square feet: <input style="width: 80px;" type="text"/>	Location: <input style="width: 100px;" type="text"/>	
	Insulation Type: <input style="width: 150px;" type="text"/>		R-Value/Thickness: <input style="width: 100px;" type="text"/>	
<input type="checkbox"/> <5#/ft <sup>2</sup> <input type="checkbox"/> 10#/ft <sup>2</sup> <input type="checkbox"/> 15#/ft <sup>2</sup> <input type="checkbox"/> 20#/ft <sup>2</sup> <input type="checkbox"/> 25#/ft <sup>2</sup>		CRRC: <input style="width: 40px;" type="text"/>	E= <input style="width: 40px;" type="text"/>	R= <input style="width: 40px;" type="text"/>

## Crawlspace Inspection

Insulation Type: <input style="width: 150px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>	Temperature °F: <input style="width: 80px;" type="text"/>
R-Value/Thickness: <input style="width: 150px;" type="text"/>	Stem Wall Height: <input style="width: 80px;" type="text"/>	Humidity %: <input style="width: 80px;" type="text"/>
Ventilation: <input style="width: 100px;" type="text"/>	Access Location / Size: <input style="width: 100px;" type="text"/>	
Knob and Tube Wiring <input style="width: 80px;" type="text"/>		

## Slab On Grade

Perimeter: <input style="width: 100px;" type="text"/>	Square feet: <input style="width: 80px;" type="text"/>
<input type="checkbox"/> Slab edge insulation	<input type="checkbox"/> Slab insulation
Insulation Type: <input style="width: 150px;" type="text"/>	Insulation Type: <input style="width: 150px;" type="text"/>
R-Value/Thickness: <input style="width: 150px;" type="text"/>	R-Value/Thickness: <input style="width: 150px;" type="text"/>



# Energy Budget Field Data Sheet

Date:

Client:

Lighting Audit										
#	Location	Interior or Exterior Lighting	Quantity	Permanent or Portable Fixture	Watts	TYPE: Incandescent, CFL, High Efficacy	BALLAST: Magnetic or Electronic	CONTROL: Switch, Dimmer, Occ. Senser, Photocontrol	Hrs / day	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
Non IC Cans:		IC Recessed Cans:		IC AT Cans:						

Location	Daily Hours
Small Closet	0.5
Bedroom/Walk in closet	1.4
Hall/Entry/Stairs/Other	2
Living	2.6
Utility/Laundry	2.6
Kitchen/Dining/Nook	3.4

Luminaire Type	Example	Method of Counting
Track Lighting	Line-voltage or low voltage Track	Larger of: 1 fixture / 3' track (or part thereof); <b>OR</b> # of Track Heads installed.
Linear Fluorescent	Linear Fluor. Fixture, Factory installed ballast	1 fixture factory made fixture regardless of lamp #.
LED	Single Diodes or clusters of Diodes	1 fixture / cluster
	Linear row of Diodes	1 fixture / 3' rounded to 3' multiples
Chandeliers with non-medium based sockets	Candelabra or pin based sockets	1 for light fixtures with 1 lamp; <b>OR</b> 1 fixture / 10 sockets (lamps) rounded up to the nearest #.
All Other	Incand. fixtures incl. low voltage/line voltage	1 for light fixtures with 1 lamp; <b>OR</b> 1 fixture / 2 sockets (lamps) rounded up to nearest #.

**Energy Budget Field Data Sheet**

Date:

Client:

Window Inspection												
#	Room	Orientation	Wall	OP/FX	Unit Type	Frame	Size	U-Fact.	SHGC?	Low-e?	Pane Gap	Condensation?
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
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35												
36												
37												
38												
39												
40												
41												
42												
43												
44												



# Energy Budget Field Data Sheet

Date:

Client:

## Appliance Information

### Refrigerator

How many in the house?  (Include any found in basement, garage or outdoor Kitchen)

Note the **first Refrigerator** is calculated at **775 kWh/year** unless an Energy Guide is available.

Each successive **Refrigerator** is calculated at **1013 kWh/year**.

Each **Standalone freezer** is calculated at 929 kWh / year.

_____	x	775	=	0
_____	x	1013	=	0
_____	x	929	=	0
0			=	0

How many of the above units are in unconditioned space? (Heat Gain Calculation)

### Ranges and Ovens

Record are the Range and/oven installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Have hookups been provided for gas and electric appliances? Yes \_\_\_\_\_ No \_\_\_\_\_

Are the Appliances Electric? Yes \_\_\_\_\_ No \_\_\_\_\_

Are the Gas Appliances Electronic Ignition, (Not Standing Pilot)? Yes \_\_\_\_\_ No \_\_\_\_\_

### Dishwasher

Record the Energy Factor of the Dishwasher is verified to be different than the the Default, (0.46) \_\_\_\_\_

### Clothes Dryer

Are the washer and dryer installed at time of AUDIT?

Is the DRYER Gas or Electric Gas \_\_\_\_\_ Elec \_\_\_\_\_ Both\* \_\_\_\_\_

\* Both can be selected only if no dryer is installed at time of Audit and provisions are made for both Gas and Electric.

Is the Clothes Dryer in unconditioned space? (Heat Gain Calculation)

### Clothes Washer

Is there a clothes Washer or a hookup for one in the house?

Yes \_\_\_\_\_ No \_\_\_\_\_

Is the Clothes Dryer in unconditioned space? (Heat Gain Calculation)

### Ancillary Electrical

### Swimming Pools

- Gas Heated WITH COVER
- Gas Heated WITHOUT COVER
- Solar-NO HEAT
- Electric WITH Cover
- Electric WITHOUT Cover

### SPAS

- Gas Heated
- SOLAR AND GAS
- Electric Heated
- SOLAR and Electric

### OTHER

Well Pump  HP

Sewage Grinder Pump  HP

# Energy Budget Field Data Sheet

Date: \_\_\_\_\_

Client: \_\_\_\_\_

## Mechanical Ventilation--(Whole House and Spot Ventilation)

Is there a 'Whole House' Ventilation System? Yes \_\_\_\_\_ No \_\_\_\_\_  
 If YES, Is it integrated into the HVAC System? Yes \_\_\_\_\_ No \_\_\_\_\_

If YES,

What is its CYCLE Time?  Minutes per  hour

What is the CFM when the ventilation system is operating? \_\_\_\_\_ cfm

What is the fan watt draw? \_\_\_\_\_ Watts Fan Watt Draw

Target Ventilation rate for the schedule above:  cfm

Table 4-8, Ventilation effectiveness for Intermittent Fans Daily Fractional On Time, <i>f</i>	Ventilation Effectiveness, <i>e</i>
$f \leq 35\%$	<b>0.33</b>
$35\% < f < 60\%$	<b>0.50</b>
$60\% \leq f < 80\%$	<b>0.75</b>
$80\% \leq f \leq 100\%$	<b>1.00</b>
Fan runs once every 3 hours	<b>1.00</b>

$f = \frac{0.0}{1} = 0.0\%$

$e = 0.33$

OR by Hand:  $Q_f = Q_r / (e \times f)$

$Q_f$  = Intermittent Fan Flow Rate

$Q_r$  = Continuous Fan Flow Rate

$e$  = Ventilation effectiveness

$f$  = Fractional On Time, minutes on / total cycle

Does the Home Owner know the operation schedule and understand the controls? Yes \_\_\_\_\_ No \_\_\_\_\_

If NO, Is it an ERV or HRV (Energy Recovery Ventilator or Heat Recovery Ventilator)? Yes \_\_\_\_\_ No \_\_\_\_\_

If YES, What is the effectiveness factor? \_\_\_\_\_ Watts per cfm? \_\_\_\_\_

If NO, Is it a Continuously operating exhaust fan? Yes \_\_\_\_\_ No \_\_\_\_\_

If YES, does it meet the minimum ventilation rate? See formula below.

CFM =  $0.01 \times CFA + 7.5(\text{bedrooms} + 1)$  Target: #REF! Verified CFM:

Is it Labeled? Yes \_\_\_\_\_ No \_\_\_\_\_

Does the Home Owner understand the controls? Yes \_\_\_\_\_ No \_\_\_\_\_

Location:  Brand:  Model:

If NO, Describe Whole House Ventilation System.

Whole House Ventilation

Spot Ventilation

#	Location	Client Comments	CFM	Noise	Exhaust Duct Length

Bathrooms need to have 50 CFM of exhaust.

Kitchen Range Hoods need 100 CFM of exhaust, (to outside) or 5 ACH from the Kitchen

# Energy Budget Field Data Sheet

Date:

Client:

## Diagnostic Testing

Duct Leakage Testing	
CFM <sub>25</sub> : <input style="width: 80%;" type="text"/>	Duct Blaster location: <input style="width: 80%;" type="text"/>
Ring: <input style="width: 80%;" type="text"/>	Duct Pressure location: <input style="width: 80%;" type="text"/>
Duct Type: <input style="width: 80%;" type="text"/>	Fan Pressure: <input style="width: 80%;" type="text"/>
Duct Insulation: <input style="width: 80%;" type="text"/>	Attic %: <input style="width: 80%;" type="text"/>
<b>Check for:</b>	Crawspace%: <input style="width: 80%;" type="text"/>
<input type="checkbox"/> Discolored Insulation	<input type="checkbox"/> Chases Used for returns
<input type="checkbox"/> Duct Tape	<input type="checkbox"/> Dampers:
<input type="checkbox"/> Unsealed furnace	<input type="checkbox"/> Right angles
<input type="checkbox"/> Unsealed supply/return plenums	<input type="checkbox"/> Small Return <input type="checkbox"/> Return Runs:
	<input type="checkbox"/> S-turns <input type="checkbox"/> Supply Runs:

Setup for Duct Blaster Test
<p style="text-align: center;"><b>DG-700 Set-up</b></p> <p>MODE • PR/FL @ 25</p> <p>DEVICE • DB B</p> <p>CONFIG • Smallest Correct Ring</p>
<p><b>25 Pa</b></p> <p><b>Air Ducts</b></p>

Building Infiltration Testing (Blower Door) PRESSURIZATION	
CFM <sub>50</sub> : <input style="width: 80%;" type="text"/>	Blower Door location: <input style="width: 80%;" type="text"/>
Ring: <input style="width: 80%;" type="text"/>	Duct Pressure location: <input style="width: 80%;" type="text"/>
Duct Type: <input style="width: 80%;" type="text"/>	Fan Pressure: <input style="width: 80%;" type="text"/>
Duct Insulation: <input style="width: 80%;" type="text"/>	Attic %: <input style="width: 80%;" type="text"/>
<b>Check for:</b>	Crawspace%: <input style="width: 80%;" type="text"/>
<input type="checkbox"/> Discolored Insulation	<input type="checkbox"/> Chases Used for returns
<input type="checkbox"/> Duct Tape	<input type="checkbox"/> Dampers:
<input type="checkbox"/> Unsealed furnace	<input type="checkbox"/> Right angles
<input type="checkbox"/> Unsealed supply/return plenums	<input type="checkbox"/> Undersized Return

Setup for Blower Door Test
<p style="text-align: center;"><b>DG-700 Set-up</b></p> <p>MODE • PR/FL @ 50</p> <p>DEVICE • BD 3</p> <p>CONFIG • Smallest Correct Ring</p> <p>TIME AVE • 1 Second</p>
<p><b>50 Pa</b></p> <p><b>Open</b></p> <p>To Outside      To Outside</p>

Air Leakage Smoke Audit	
<input type="checkbox"/> Attic hatch	<input type="checkbox"/> Light switches
<input type="checkbox"/> Baseboards	<input type="checkbox"/> Molding
<input type="checkbox"/> Closets	<input type="checkbox"/> Pantries
<input type="checkbox"/> Crawspace hatch	<input type="checkbox"/> Plumbing
<input type="checkbox"/> Electrical sockets	<input type="checkbox"/> Recessed canned lights
<input type="checkbox"/> Exhaust vents	<input type="checkbox"/> Sliding doors
<input type="checkbox"/> Exterior doors	<input type="checkbox"/> Stairs
<input type="checkbox"/> Holes	<input type="checkbox"/> Windows
<input type="checkbox"/> Light fixtures	<input type="checkbox"/> Wiring

Building Set-up
<ul style="list-style-type: none"> <li>• Leave fan covers on</li> <li>• Reference Tubes to outside</li> <li style="padding-left: 20px;">Open all interior doors</li> <li style="padding-left: 20px;">Confirm fan direction, IN</li> <li>• 'B' Input to BD</li> <li>• Press Baseline</li> <li>• Press Start</li> <li>• Press Enter</li> </ul> <p style="text-align: center;">Pressurize to 50 Pa</p>

## Combustion Appliance Zone

Setup House	Diagnostic Procedures	
<input type="checkbox"/> Turn water heater to pilot setting	<b>BASE CASE</b>	<b>WORST CASE</b>
<input type="checkbox"/> Turn off HVAC system	<input type="checkbox"/> Ambient pressure test	<input type="checkbox"/> Exhaust fans and dryer
<input type="checkbox"/> Fully open supply registers	<input type="checkbox"/> All systems off	<input type="checkbox"/> Air handler on
<input type="checkbox"/> Close exterior doors and windows	<b>EXHAUST FANS</b>	<input type="checkbox"/> Close doors (LEAVE OPEN rooms with exhaust fans)
<input type="checkbox"/> Close fireplace dampers	<input type="checkbox"/> Exhaust fans only (air handler off)	
<input type="checkbox"/> Open all interior doors	<input type="checkbox"/> Turn on dryer	<b>AIR HANDLER</b>
<input type="checkbox"/> Turn off exhaust fans and devices	<input type="checkbox"/> Close doors (LEAVE OPEN rooms with exhaust fans)	<input type="checkbox"/> Air handler only
		<input type="checkbox"/> Close interior doors