

# Energy Footprint Tool

Overview and Tour



U.S. DEPARTMENT OF  
**ENERGY**

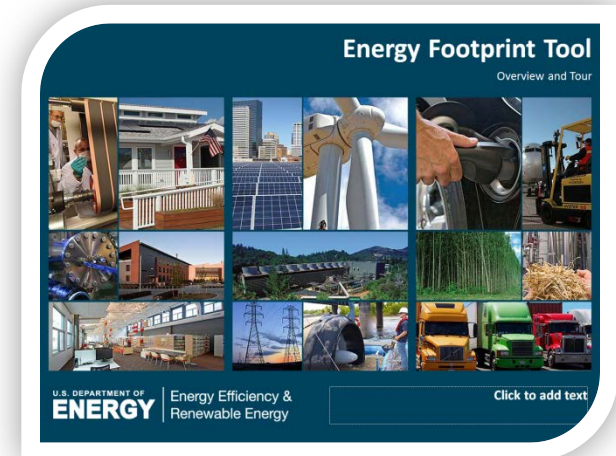
Energy Efficiency &  
Renewable Energy

# How to use this Document

This document is designed to be used as both a comprehensive presentation and a quick reference for the **Energy Footprint Tool**

*To use as a quick reference:*

- The [table of contents](#) provides links to all of the key topics covered.
- Each page also includes a direct link back to the table of contents



# How to use the Energy Footprint Tool

The **Energy Footprint Tool** is designed to be easy to use with significant built-in documentation. Detailed labels and pop-up help windows on all sheets allow users quickly begin using all features.

## ***What data needs to be gathered?***

**Monthly Energy Bills** should provide all of the required *Energy Consumption* data.

Depending on the *Relevant Variables*, these may or may not be tracked at the plant (ex. production, operating hours) and might need to be looked up (ex. degree days)

*Energy Uses* may or may not be individually tracked by the plant and could potentially be estimated based on energy consumption or possibly directly measured

This screenshot shows the 'Energy Footprint - ENERGY CONSUMPTION' spreadsheet. It includes a 'Fuel' tab with columns for Fuel Type, Quantity, and Unit, and an 'Electricity' tab with columns for Electricity Type, Quantity, and Unit. Both tabs have a 'MONTH' column for tracking data by month.

This screenshot shows the 'Energy Footprint - RELEVANT VARIABLES' spreadsheet. It includes a 'Heating Degree Days' tab with columns for Location, Day of Month, and Degree Days, and a 'Production' tab with columns for Location, Day of Month, and Production. Both tabs have a 'MONTH' column for tracking data by month.

This screenshot shows the 'Energy Footprint - ENERGY USES' spreadsheet. It includes a 'Energy Uses' tab with columns for Location, Day of Month, and Energy Uses, and an 'Energy Conversion' tab with columns for Location, Day of Month, and Energy Conversion. Both tabs have a 'MONTH' column for tracking data by month.



# Table of Contents (click links to jump to section)

[Introduction to the Energy Footprint Tool](#)

[Summary of Key Sheets](#)

[Key Terms](#)

**Spreadsheet Details** [[description structure](#)]:

- Main: [Layout](#) [Notes](#)
- Energy Consumption: [Layout](#) [Notes](#)
- EC Charts: [Layout](#) [Notes](#)
- Relevant Variables: [Layout](#) [Notes](#)
- RV Charts: [Layout](#) [Notes](#)
- EC-RV: [Layout](#) [Notes](#)
- Energy Uses: [Layout](#) [Notes](#)
- EU Charts: [Layout](#) [Notes](#)
- EnPI Table: [Layout](#) [Notes](#)
- Raw Data: [Layout](#) [Notes](#)

The screenshot displays the 'Energy Footprint [v1.0]' spreadsheet interface. At the top, there's a header with 'DOE Advanced Manufacturing Office', 'Introduction', 'HELP', and 'QUESTIONS, COMMENTS, or ISSUES' with an email address 'aGuidefeedback@ee.doe.gov'. Below this is a 'Description' section stating the tool tracks energy consumption by source, factors affecting energy consumption, and specific energy uses on a monthly basis for 1 or multiple years.

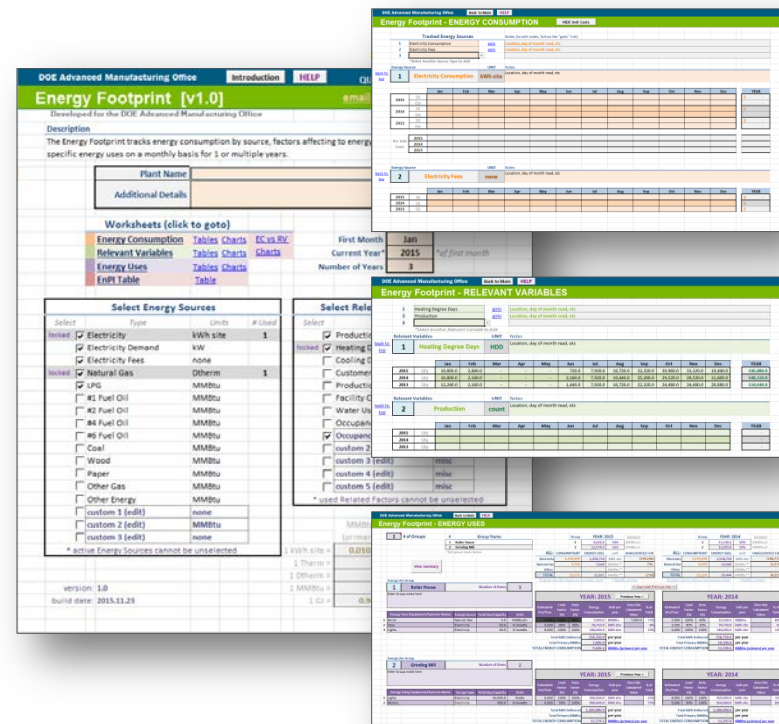
The interface includes several input fields and tables:

- Plant Name:** A text input field.
- Additional Details:** A larger text input area.
- Worksheets (click to goto):** A list of worksheets including 'Energy Consumption', 'Relevant Variables', 'Energy Uses', and 'EnPI Table', each with links to 'Tables', 'Charts', and 'Tables/Charts'.
- First Month:** A dropdown menu set to 'Jan'.
- Current Year:** A dropdown menu set to '2015'.
- Number of Years:** A dropdown menu set to '3'.
- Select Energy Sources:** A table with columns 'Select', 'Type', 'Units', and '# Used'. It lists various energy sources like Electricity, Natural Gas, LPG, and various fuel oils, with checkboxes for selection.
- Select Relevant Variables Tracked:** A table with columns 'Select', 'Type', 'Units', and '# Used'. It lists variables like Production, Heating Degree Days, Cooling Degree Days, and others, with checkboxes for selection.
- Footer:** Includes 'version: 1.0', 'build date: 2015.11.23', and a calculation for '1 kWh side = 0.010228'.

The **Energy Footprint Tool** is designed to allow users to easily track energy consumption, relevant variables, and energy uses.

*Key tracking & features include:*

- **Energy Consumption**
  - Up to 20 Tracked Energy Sources
- **Relevant Variables**
  - Up to 20 Tracked Variables
- **Energy Use**
  - Up to 10 Energy Use Groups
  - Up to 30 Components Each
- **Charts for all tracked data**
- **Export to the EnPI tool**



# Summary of Key Sheets

**Main** – Overview of footprint tool with key settings

**Energy Consumption** – Monthly energy consumption and cost data

**EC Charts** – Energy consumption charts

**Relevant Variables** – Monthly and yearly data for relevant variables

**RV Charts** – Relevant variable charts

**EC-RV** – Charts comparing selected energy consumption with relevant variables

**Energy Uses** – Yearly energy uses tracked by group and specific use

**EU Charts** – Charts of energy uses

**EnPI Table** – Exportable data table compatible with EnPI analysis tool

**Raw Data** – All entered energy consumption and relevant variables data in one large table

# Key Terms

## Energy Consumption

Defined as the “quantity of energy applied” (source ISO 50001:2011), it is the amount of energy consumed

## Energy Source

The type of energy consumed: electricity, natural gas, fuel oil, etc. Electricity is broken into 3 components: electricity consumption, demand, and fees

## Relevant Variables

Variables that likely contribute to energy consumption and use: production, operating hours, heating degree days, etc.

## Energy Use

Defined as the “manner or kind of application of energy”, this often refers to energy use by specific equipment and applications

## Load Factor

Average load relative to the full load of the equipment

## Duty Factor

Average ratio of run time to operating hours

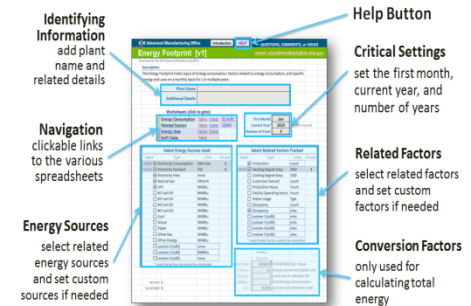
## EnPI

Stands for *Energy Performance Indicator* and is defined as the “quantitative value or measure of energy performance” (source ISO 50001:2011)

# Structure of Sheet Descriptions

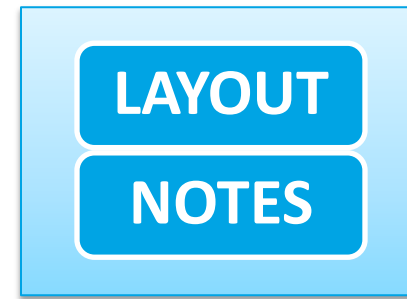
## LAYOUT

Screenshot of the sheets provide details about the layout, highlighting key components



## NOTES

List of functions, features, and tips related to the sheet



- To enter a new years worth of data, change the **Current Year** to the new year and increase the **Number of Years** by 1
- Selected **Energy Sources** and **Related Factors** cannot be changed after they have been directly connected with data and will be grayed out and tagged with the word *locked*.
- The *Introduction* popup can be stopped from automatically opening by checking the box in the lower left of the popup.
- The links to the **Energy Consumption** and **Related Factors** charts only appear if associated data has been entered.
- Changing **First Month** does not adjust entered data. If the **First Month** is changed after the data has been entered, the data will be aligned with different months.



## Identifying Information

add plant name and related details

## Navigation

clickable links to the various spreadsheets

## Energy Sources

select related energy sources and set custom sources if needed

## Help Button

## Critical Settings

set the first month, current year, and number of years

## Relevant Variables

select relevant variables and set custom variables if needed

## Conversion Factors

only used for calculating total energy consumption and by energy use

DOE Advanced Manufacturing Office Introduction **HELP** QUESTIONS, COMMENTS, or ISSUES

**Energy Footprint [v1.0]** email: [eGuidefeedback@ee.doe.gov](mailto:eGuidefeedback@ee.doe.gov)

Developed for the DOE Advanced Manufacturing Office

Description  
The Energy Footprint tracks energy consumption by source, factors affecting to energy consumption, and specific energy uses on a monthly basis for 1 or multiple years.

Plant Name  
Additional Details

Worksheets (click to goto)  
[Energy Consumption](#) [Tables](#) [Charts](#) [EC vs RV](#)  
[Relevant Variables](#) [Tables](#) [Charts](#) [Charts](#)  
[Energy Uses](#) [Tables](#) [Charts](#)  
[EnPI Table](#) [Table](#)

First Month: Jan  
Current Year\*: 2015  
Number of Years: 3

Select Energy Sources

Select	Type	Units	# Used
<input checked="" type="checkbox"/>	Electricity	kWh site	1
<input checked="" type="checkbox"/>	Electricity Demand	kW	
<input checked="" type="checkbox"/>	Electricity Fees	none	
<input checked="" type="checkbox"/>	Natural Gas	Dtherm	1
<input type="checkbox"/>	LPG	MMBtu	
<input type="checkbox"/>	#1 Fuel Oil	MMBtu	
<input type="checkbox"/>	#2 Fuel Oil	MMBtu	
<input type="checkbox"/>	#4 Fuel Oil	MMBtu	
<input type="checkbox"/>	#6 Fuel Oil	MMBtu	
<input type="checkbox"/>	Coal	MMBtu	
<input type="checkbox"/>	Wood	MMBtu	
<input type="checkbox"/>	Paper	MMBtu	
<input type="checkbox"/>	Other Gas	MMBtu	
<input type="checkbox"/>	Other Energy	MMBtu	
<input type="checkbox"/>	custom 1 (edit)	none	
<input type="checkbox"/>	custom 2 (edit)	MMBtu	
<input type="checkbox"/>	custom 3 (edit)	none	

\* active Energy Sources cannot be unselected

Select Relevant Variables Tracked

Select	Type	Units	# Used
<input checked="" type="checkbox"/>	Production	count	
<input checked="" type="checkbox"/>	Heating Degree Days	HDD	1
<input type="checkbox"/>	Cooling Degree Days	CDD	
<input type="checkbox"/>	Customers Served	count	
<input type="checkbox"/>	Production Hours	hours	
<input type="checkbox"/>	Facility Operating Hours	hours	
<input type="checkbox"/>	Water Usage	Tgal	
<input type="checkbox"/>	Occupancy	count	
<input checked="" type="checkbox"/>	Occupancy	misc	
<input type="checkbox"/>	custom 2 (edit)	misc	
<input type="checkbox"/>	custom 3 (edit)	misc	
<input type="checkbox"/>	custom 4 (edit)	misc	
<input type="checkbox"/>	custom 5 (edit)	misc	

\* used Related Factors cannot be unselected

version: 1.0  
build date: 2015.11.23

MMBtu (primary)  
 kWh site = 0.010228  
 1 Therm = 0.1  
 1 Dtherm = 1  
 1 MMBtu = 1  
 1 GJ = 0.9478

FOR REFERENCE: These energy conversion factors are used only to calculate the total primary energy consumption and are not otherwise used.

- To enter a new years worth of data, change the **Current Year** to the new year and increase the **Number of Years** by 1
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- The *Introduction* popup can be stopped from automatically opening by checking the box in the lower left of the popup.
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# Energy Consumption sheet

LAYOUT

[GO TO](#)

[Table of Contents](#)

## Tracked Energy Sources

includes only selected  
Energy Source types

Energy Source Units  
pulled from Main sheet

Energy Sources #  
the ID number for  
the specific energy  
source data

Energy Source Notes  
Can include details  
like meter location,  
utility, building, etc

Yearly Totals

Unit Costs  
can be  
hidden or  
displayed as  
needed

DOE Advanced Manufacturing Office Back to Main HELP

### Energy Footprint - ENERGY CONSUMPTION

Unit Costs

Tracked Energy Sources

Energy Source	UNIT	Notes
1 Electricity	kWh site	Location, day of month read, etc
2 Natural Gas	Dtherm	Location, day of month read, etc

Select Another Energy Source Type to Add

back to top

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YEAR
2015	SS	\$18,799.57	\$17,111.78	\$23,615.84	\$28,495.46	\$24,430.42	\$19,004.75	\$14,554.98	\$17,746.82	\$21,895.12	\$15,587.60	\$16,663.00	\$18,281.47	\$ 236,186.81
	Qty	109,282.0	98,838.0	123,900.0	144,980.0	128,332.0	104,215.0	83,224.0	106,890.0	119,200.0	95,445.0	93,670.0	102,588.0	1,310,564.0
2014	SS	\$12,292.81	\$21,077.28	\$24,305.75	\$28,685.28	\$24,219.36	\$18,381.30	\$14,477.05	\$17,243.23	\$17,742.78	\$21,551.04	\$16,666.56	\$17,028.00	\$ 233,670.44
	Qty	67,776.0	113,500.0	131,047.0	151,925.0	133,400.0	92,640.0	84,348.0	90,889.0	100,400.0	121,824.0	93,994.0	88,896.0	1,270,039.0
2013	SS	\$13,541.30	\$15,088.00	\$25,365.00	\$22,205.30	\$22,526.40	\$18,001.17	\$18,395.80	\$13,787.62	\$22,373.40	\$15,670.20	\$18,955.68	\$17,884.68	\$ 223,794.55
	Qty	81,480.0	80,640.0	149,600.0	135,975.0	137,072.0	101,178.0	99,372.0	78,106.0	123,930.0	89,991.0	107,565.0	99,200.0	1,285,109.0
Per Unit	Costs	\$ 0.17	\$ 0.17	\$ 0.19	\$ 0.20	\$ 0.19	\$ 0.18	\$ 0.17	\$ 0.17	\$ 0.18	\$ 0.16	\$ 0.18	\$ 0.18	\$ 0.18
2015		\$ 0.17	\$ 0.19	\$ 0.17	\$ 0.16	\$ 0.16	\$ 0.18	\$ 0.19	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.19	\$ 0.18
2014		\$ 0.17	\$ 0.19	\$ 0.17	\$ 0.16	\$ 0.16	\$ 0.18	\$ 0.19	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.19	\$ 0.18
2013		\$ 0.17	\$ 0.19	\$ 0.17	\$ 0.16	\$ 0.16	\$ 0.18	\$ 0.19	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.19	\$ 0.18

back to top

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YEAR
2015	SS	\$9,718.14	\$2,280.94	\$1,595.15	\$1,538.21	\$1,286.09	\$1,314.72	\$3,549.50	\$12,560.28	\$15,972.56	\$22,091.98	\$26,033.46	\$15,243.17	\$ 113,184.20
	Qty	953.5	268.3	204.4	191.5	173.8	173.3	342.5	760.6	942.7	1,277.8	1,559.4	908.1	7,255.9
2014	SS	\$6,176.65	\$3,650.33	\$1,405.15	\$1,224.10	\$1,370.16	\$1,280.28	\$3,803.78	\$10,788.72	\$18,571.24	\$22,473.31	\$20,868.12	\$16,513.40	\$ 107,635.24
	Qty	613.5	375.5	188.0	171.7	183.3	180.8	410.2	809.9	1,284.1	2,312.7	1,577.2	1,121.9	9,228.8
2013	SS	\$7,489.25	\$2,391.90	\$2,084.72	\$1,365.60	\$1,454.51	\$1,574.20	\$2,716.86	\$14,805.60	\$15,002.70	\$19,376.49	\$21,091.29	\$17,018.61	\$ 106,371.73
	Qty	795.6	271.9	252.2	192.6	206.7	216.4	336.0	1,588.6	1,532.4	2,065.2	2,448.6	1,555.1	11,461.3
Per Unit	Costs	\$ 10.19	\$ 8.50	\$ 7.80	\$ 8.03	\$ 7.46	\$ 7.59	\$ 10.36	\$ 16.51	\$ 16.94	\$ 17.29	\$ 16.69	\$ 16.79	\$ 14.59
2015		\$ 10.07	\$ 9.22	\$ 7.47	\$ 7.13	\$ 7.47	\$ 7.14	\$ 8.09	\$ 13.22	\$ 14.46	\$ 9.22	\$ 13.29	\$ 14.72	\$ 11.66
2014		\$ 9.41	\$ 8.80	\$ 8.37	\$ 7.89	\$ 7.64	\$ 7.27	\$ 8.00	\$ 9.32	\$ 9.79	\$ 9.58	\$ 8.61	\$ 11.09	\$ 8.30

Energy Source Format Repeats  
unit fields are hidden for unit-less  
energy sources

Energy Source Cost  
and Unit Data  
entered by  
year and month

- Up to 20 **Energy Sources** can be tracked
- Units fields only appear for **Energy Sources** that include units. For example, *Electricity Fees* do not include units
- To add a new **Tracked Energy Source**, select it from the dropdown menu in the blank space
- Only the last **Tracked Energy Source** can be removed. This can be done by deleting the **Energy Source** from the list.
- To add an **Energy Source** to the dropdown menu, go to the **Main** sheet and select the additional **Energy Source**
- *Unit Costs* can be used to quickly identify data errors
- Even when rows are hidden, the data is not deleted or overwritten

## Selected Energy Source

Charts display selected energy source

## Related Data Tables

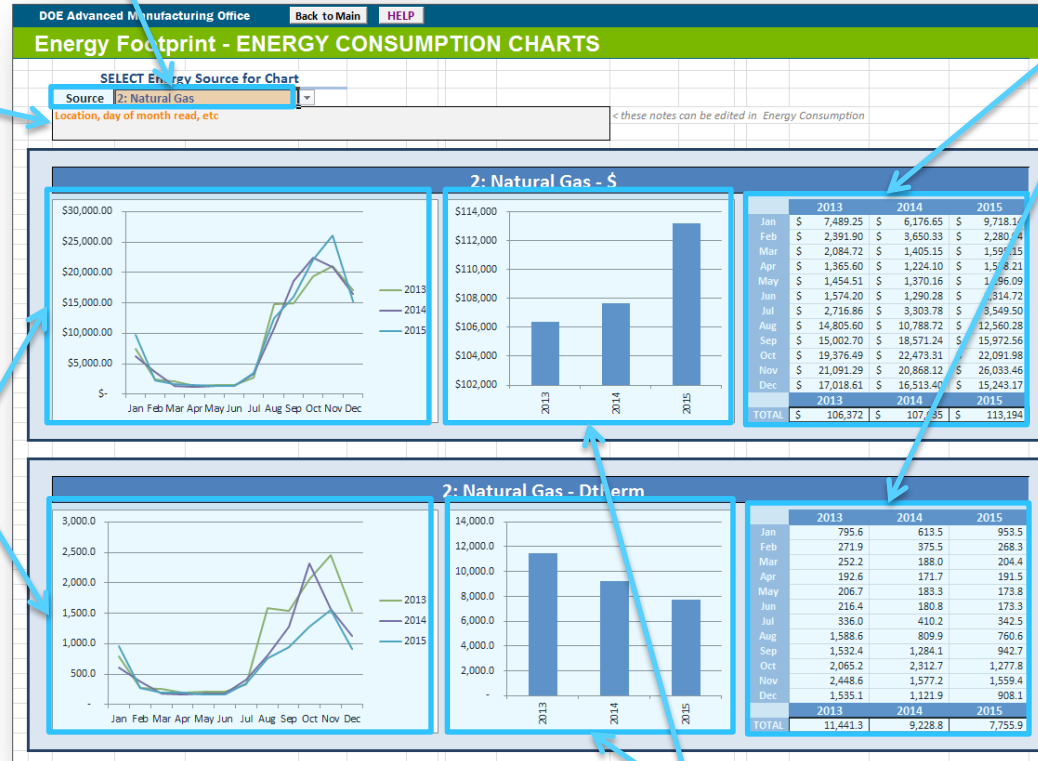
Tables of charted data

## Energy Source Notes

Notes pulled from Energy Consumption sheet

## Monthly Data Charts

Displays monthly costs and energy consumption for each tracked year



Cost Related Charts and tables

## Energy Consumption Related

Charts and tables. Hidden if unit-less energy source selected

## Yearly Data Charts

Displays total yearly costs and energy consumption



- The ***EC Charts*** sheet will be hidden until **Tracked Energy Sources** are added to the ***Energy Consumption*** sheet
- Change the selected **Energy Source** to change the charts
- The notes associated with the **Energy Source** will also be displayed
- Additional aggregate Energy Consumption data can be charted if applicable including; *Total Electricity, Total Natural Gas, Total Other*, and overall *Total Energy*
- The usage charts will be hidden if the selected **Energy Source** is unit-less
- Changing the selected **Energy Source** will also update the selected **Energy Source** on the ***EC-RV*** sheet



- Up to 20 **Relevant Variables** can be tracked
- To add a new **Relevant Variables**, select it from the dropdown menu in the blank space
- Only the last **Relevant Variables** can be removed by deleting the Energy Source from the list
- To add a **Relevant Variables** to the dropdown menu, go to the **Main** sheet and select the additional **Relevant Variables**
- Even when rows are hidden, the data is not deleted or overwritten

## Selected Relevant Variable

Charts displayed selected relevant variable

## Total or Average

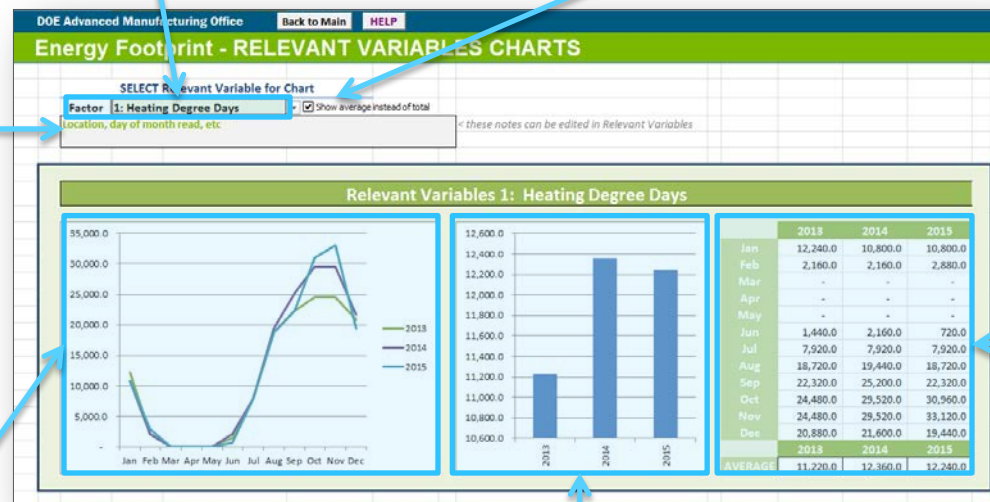
Checkbox toggles between displaying yearly average and total

## Relevant Variable Notes

Notes pulled from Relevant Variables sheet

## Monthly Data Chart

Displays monthly costs and usage for each tracked year



## Related Data Tables

Table of charted data

## Yearly Data Charts

Displays yearly total or average for Relevant Variable

- The ***RV Charts*** sheet will be hidden until **Tracked Relevant Variables** are added to the ***Relevant Variables*** sheet
- Change the selected **Relevant Variables** to change the charts
- The notes associated with the **Relevant Variables** will also be displayed
- Changing the selected **Relevant Variable** will also update the selected **Relevant Variable** on the ***EC-RV*** sheet
- The *Show average instead of total* checkbox will change the yearly total to yearly average to better represent **Relevant Variables** that are not cumulative



## Selected Energy Source

Charts display selected energy source

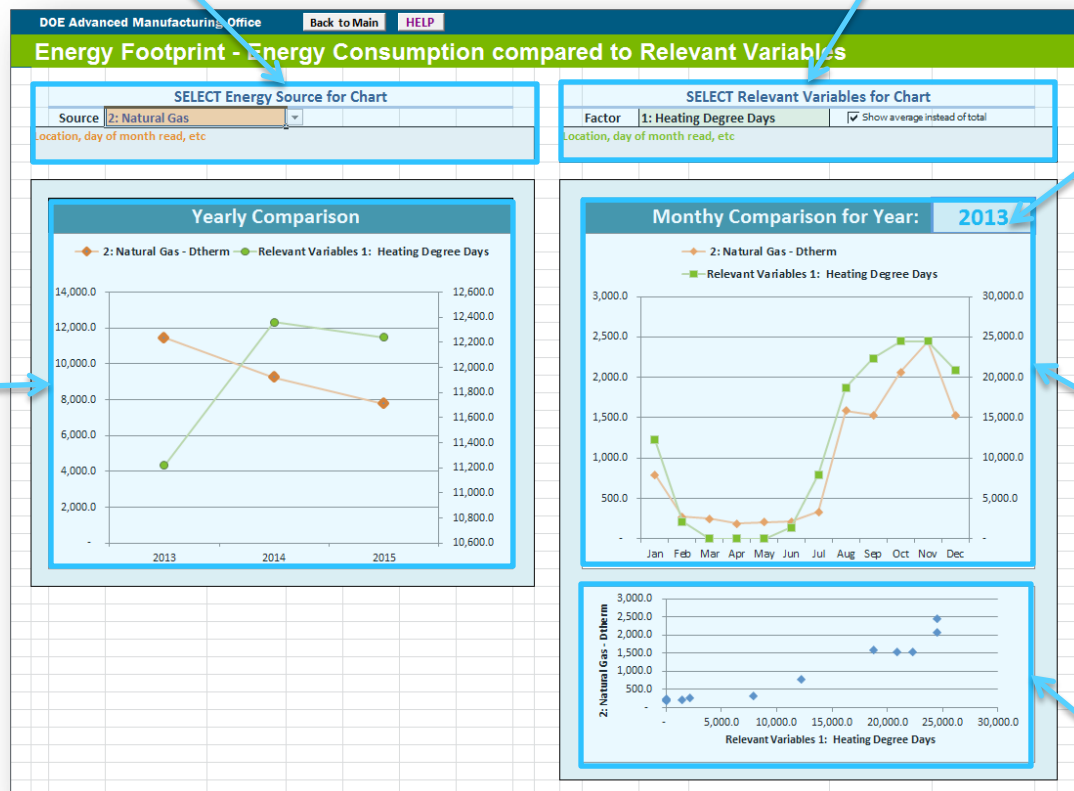
## Selected Relevant Variable

Charts display selected Relevant Variable

## Selected Year

Current year used for comparison charts below. Change to update

**Yearly Data Comparison**  
Compares energy source yearly energy consumption with Relevant Variable yearly total or average



## Monthly Data Comparison

Compares energy source consumption with Relevant Variable by month

## Direct Comparison

Energy consumption is directly plotted against the Relevant Variable

- The ***EC-RV Charts*** sheet will be hidden until both **Energy Consumption** and **Tracked Relevant Variables** have been added
- Change the selected **source** or **factor** to update the the charts
- Changing the selected **source** or **factor** will also update the selected **source** or **factor** on the related sheet
- Changing the *Year* will update both monthly comparison charts
- The *Show average instead of total* checkbox will change the yearly total to yearly average to better represent **Relevant Variables** that are not cumulative

# Energy Uses sheet

LAYOUT

[GO TO](#)

[Table of Contents](#)

## Number # of Groups

The number # selected controls the number of groups displayed below

## Number # of Items

This controls the number of items included in this group

## Duplicate Previous Year

Copies previous years data to current year

## Energy Use Group Total Yearly Energy Consumption

Total for each groups yearly energy end-use

## Group Name and Notes

Enter group name and descriptive details about the group

## Group Item List

List of equipment and other energy uses that are included in this group

## Yearly Energy Source Breakdown

Yearly energy consumption for each energy use group and overall by energy source

## Energy Use

Energy consumption by energy use estimated or directly entered

## Group Energy Source Breakdown

Energy use group total energy consumption by energy source

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Back to Main

HELP

Energy Footprint - ENERGY USES

2

# of Groups

#

Group Name

1

Boiler House

2

Grinding Mill

\*Edit group name below

View Summary

Energy Use Group

1

Boiler House

Number of Items

3

Enter Group notes here

Energy Uses (Equipment/Systems Name)

Energy Source

Total Size/Capacity

Units

1

Boiler

Natural Gas

5.0

MMBtu/yr

2

Boiler

Electricity

50.0

kilowatts

3

Boiler

Electricity

80.0

kilowatts

ALL: CONSUMPTION\* ENERGY USES unit UNACCOUNTED FOR

Electricity 1,310,564 1,426,750 kWh site (146,186)

Natural Gas 7,756 7,000 MMBtu\*\* 75%

Other - - MMBtu\*\* -

TOTAL 21,171 21,821 MMBtu\*\* (750)

\*Entered into the Energy Consumption sheet \*\*MMBtu primary

<< Duplicate Previous Year >>

YEAR: 2015 Previous Year >

Estimated Hrs/Year

Load Factor (%)

Duty Factor (%)

Energy Consumption

Unit per year

Override Calculated Value

% of Total

3,500

100%

50%

7,000.0

MMBtu

7,000.0

73%

3,500

90%

50%

78,750.0

kWh site

8%

6,000

100%

100%

180,000.0

kWh site

19%

Total kWh Delivered 258,750.0 per year

Total Primary MMBtu 7,000.0 per year

TOTAL ENERGY CONSUMPTION 9,646.6 MMBtu (primary) per year

YEAR: 2014

Estimated Hrs/Year

Load Factor (%)

Duty Factor (%)

Energy Consumption

Unit per year

Override Calculated Value

% of Total

3,500

100%

50%

10,500.0

MMBtu

10,500.0

80%

3,500

90%

50%

78,750.0

kWh site

6%

6,000

100%

100%

180,000.0

kWh site

14%

Total kWh Delivered 258,750.0 per year

Total Primary MMBtu 10,500.0 per year

TOTAL ENERGY CONSUMPTION 13,146.6 MMBtu (primary) per year

Energy Use Group

2

Grinding Mill

Number of Items

2

Enter Group notes here

Energy Using Equipment/Systems Name

Energy Type

Total Size/Capacity

Units

1

Lights

Electricity

50,000.0

Watts

2

Motors

Electricity

300.0

kilowatts

YEAR: 2015 Previous Year >

Estimated Hrs/Year

Load Factor (%)

Duty Factor (%)

Energy Consumption

Unit per year

Override Calculated Value

% of Total

6,000

100%

100%

300,000.0

kWh site

25%

6,000

50%

100%

300,000.0

kWh site

75%

Total kWh Delivered 1,200,000.0 per year

Total Primary MMBtu - per year

TOTAL ENERGY CONSUMPTION 12,274.1 MMBtu (primary) per year

YEAR: 2014

Estimated Hrs/Year

Load Factor (%)

Duty Factor (%)

Energy Consumption

Unit per year

Override Calculated Value

% of Total

8,000

100%

100%

400,000.0

kWh site

31%

6,000

50%

100%

300,000.0

kWh site

69%

Total kWh Delivered 1,200,000.0 per year

Total Primary MMBtu - per year

TOTAL ENERGY CONSUMPTION 13,297.0 MMBtu (primary) per year

Current Selected Year

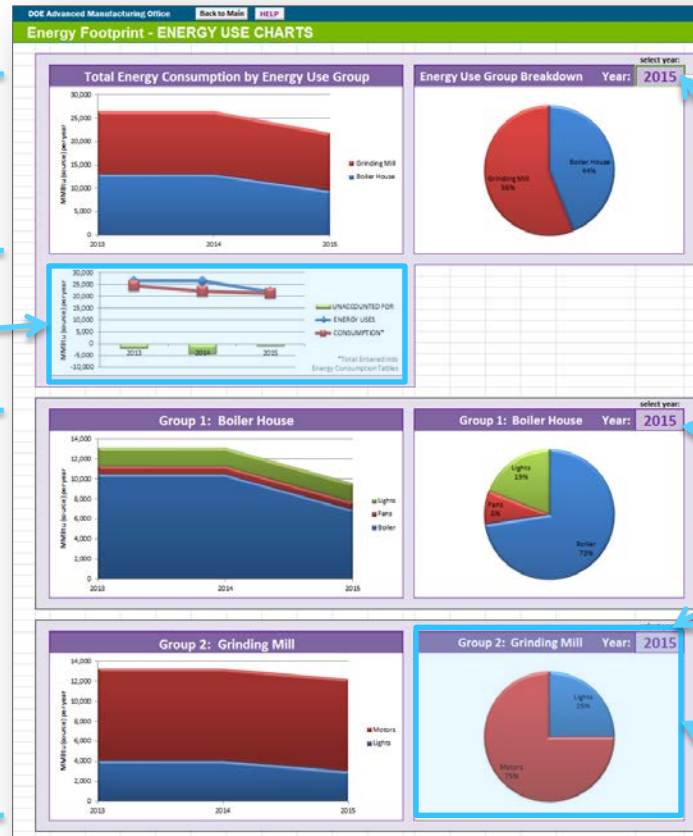
Previous Year

- The ***Energy Uses*** sheet uses navigation buttons to switch the current year displayed
- Only 2 years are displayed at a time, the current selected year and the year previous to that
- A previous years Energy End-Use data can be copied to the current selected year by clicking the *Duplication Previous Year* button and typing “confirm” into the confirm popup
- The ***Energy Uses*** sheet attempts to estimate the equipment energy consumption by using load factor, duty factor, and operating hours. If the actual energy consumption is known, it can be entered in the override field and other will be ignored
- A *Summary* of the equipment, group, and total energy consumption by year can be displayed by clicking the *View Summary* button

**Total Yearly Energy Use**  
Comparing all groups

**Total Yearly Energy Use and  
Energy Consumption  
Comparison**

**Group Specific Charts**  
Charts for each active  
energy use group



**Selected Year**  
Pie charts  
display data for  
selected year.  
Change any  
selected year to  
update all

**Pie Chart of  
Energy Use**



- Changing any of the selected *Years* will update all select *Years* and associated pie charts
- The charts display groups and items based on the *number of groups/items* selected on the **Energy Uses** sheet. This means blank rows will still be charted if they are visible. To correct this, adjust the *number of groups/items* on the **Energy Uses** sheet to match the number of groups/items with data.
- The chart comparing **Energy Use** with **Energy Consumption** only displays energy consumption for energy use groups and overall by year. To compare energy consumption by energy use in more detail, review the summary tables in the **Energy Uses** sheet

DOE Advanced Manufacturing Office [Back to Main](#) [HELP](#)

### Energy Footprint - EnPI Compatible Table

The following table provides the entered energy and related factors data in a format compatible with the DOE EnPI tool. NOTE: The EnPI Tool MUST FIRST be downloaded and installed.  
 download: <https://ecenter.ee.doe.gov/EM/Tools/Pages/EnPI.aspx>  
 Once the EnPI has been installed, click the "EXPORT TABLE" button to export this table for use with the EnPI tool

[EXPORT TABLE](#)

Date	Electricity (kWh site)	Electricity Cost	Natural Gas (Dtherms)	Natural Gas Cost	Other Energy (MMBtu)	Other Energy Cost	Heating Degree Days (HDD)	Production (count)
4/1/2013	81,480.00	\$ 13,541.30	795.60	\$ 7,489.25	-	\$ -	12,240.00	-
5/1/2013	80,640.00	\$ 15,088.00	271.87	\$ 2,391.90	-	\$ -	2,160.00	-
6/1/2013	149,600.00	\$ 25,365.00	252.19	\$ 2,084.72	-	\$ -	-	-
7/1/2013	135,975.00	\$ 22,205.30	192.60	\$ 1,365.60	-	\$ -	-	-
8/1/2013	137,072.00	\$ 22,526.40	206.65	\$ 1,454.51	-	\$ -	-	-
9/1/2013	101,178.00	\$ 18,001.17	216.44	\$ 1,574.20	-	\$ -	1,440.00	-
10/1/2013	95,372.00	\$ 18,395.80	336.02	\$ 2,716.86	-	\$ -	7,920.00	-
11/1/2013	78,106.00	\$ 13,787.62	1,588.63	\$ 14,805.60	-	\$ -	18,720.00	-
12/1/2013	123,930.00	\$ 22,373.40	1,532.35	\$ 15,002.70	-	\$ -	22,320.00	-
1/1/2014	89,991.00	\$ 15,670.20	2,065.25	\$ 19,376.49	-	\$ -	24,480.00	-
2/1/2014	107,565.00	\$ 18,955.68	2,448.60	\$ 21,091.29	-	\$ -	24,480.00	-
3/1/2014	99,200.00	\$ 17,884.68	1,535.07	\$ 17,018.61	-	\$ -	20,880.00	-
4/1/2014	67,776.00	\$ 12,292.81	613.51	\$ 6,176.65	-	\$ -	10,800.00	-
5/1/2014	113,500.00	\$ 21,077.28	375.54	\$ 3,650.33	-	\$ -	2,160.00	-
6/1/2014	131,047.00	\$ 24,305.75	188.01	\$ 1,405.15	-	\$ -	-	-
7/1/2014	151,925.00	\$ 28,685.28	171.74	\$ 1,224.10	-	\$ -	-	-
8/1/2014	133,400.00	\$ 24,219.36	183.33	\$ 1,370.16	-	\$ -	-	-
9/1/2014	92,640.00	\$ 18,381.30	180.79	\$ 1,290.28	-	\$ -	2,160.00	-
10/1/2014	84,348.00	\$ 14,477.05	410.24	\$ 3,303.78	-	\$ -	7,920.00	-
11/1/2014	90,889.00	\$ 17,243.23	809.88	\$ 10,788.72	-	\$ -	19,440.00	-
12/1/2014	100,400.00	\$ 17,742.78	1,284.12	\$ 18,571.24	-	\$ -	25,200.00	-
1/1/2015	121,824.00	\$ 21,551.04	2,312.66	\$ 22,473.31	-	\$ -	29,520.00	-
2/1/2015	93,394.00	\$ 16,666.56	1,577.22	\$ 20,868.12	-	\$ -	29,520.00	-
3/1/2015	88,896.00	\$ 17,028.00	1,121.90	\$ 16,513.40	-	\$ -	21,600.00	-
4/1/2015	105,282.00	\$ 18,799.57	953.54	\$ 9,718.14	-	\$ -	10,800.00	-
5/1/2015	98,838.00	\$ 17,111.78	268.32	\$ 2,280.94	-	\$ -	2,880.00	-
6/1/2015	123,900.00	\$ 23,615.84	204.43	\$ 1,595.15	-	\$ -	-	-
7/1/2015	144,960.00	\$ 28,495.46	191.52	\$ 1,538.21	-	\$ -	-	-
8/1/2015	138,352.00	\$ 24,430.42	173.76	\$ 1,296.09	-	\$ -	-	-
9/1/2015	104,215.00	\$ 19,004.75	173.28	\$ 1,314.72	-	\$ -	720.00	-
10/1/2015	83,224.00	\$ 14,554.98	342.51	\$ 3,349.50	-	\$ -	7,920.00	-
11/1/2015	106,890.00	\$ 17,746.82	760.62	\$ 12,560.28	-	\$ -	18,720.00	-
12/1/2015	119,200.00	\$ 21,895.12	942.89	\$ 15,972.56	-	\$ -	22,320.00	-
1/1/2016	95,445.00	\$ 15,587.60	1,277.78	\$ 22,091.98	-	\$ -	30,960.00	-
2/1/2016	93,670.00	\$ 16,663.00	1,559.38	\$ 26,032.46	-	\$ -	33,120.00	-
3/1/2016	102,588.00	\$ 18,281.47	908.11	\$ 15,243.17	-	\$ -	19,440.00	-

**EXPORT DATA**  
 Generate EnPI tool compatible workbook

**Preview Table**  
 This table approximately matches the data and format of the EnPI data input table

- EnPI stands for *Energy Performance Indicator*
- The **EnPI Table** sheet formats the entered data for use with the *EnPI tool* (v4)
- The *EnPI tool* establishes a normalized baseline of energy consumption and tracks annual progress of energy intensity improvements.
- To use this table with the *EnPI tool*, the table must first be exported to a separate workbook. This can be done automatically by clicking the **Export Table** button
- For more information and to download the EnPI tool, goto: <https://ecenter.ee.doe.gov/EM/tools/Pages/EnPI.aspx>

## 27

- The ***Raw Data*** table provides all of the entered **Energy Consumption** and **Relevant Variables** data in one large table
- This allows advanced users to easily analyze and work with this data outside of the ***Footprint Tool*** as needed
- All data, including hidden data, is included