Energy I

Company Name	ABC Corporation
Plant	Manufacturing
Contact Name	Charles Schultz
Address	1234 Main Street, Los Angeles, 92645
Comments	

Worksheet for Energy Intensity Cha

Base Line Data

								1
Product	Production Line	Production Units Description	Production Line Baseline Year	Production Line Drop Out Year	Energy used (MMBtu) for all production line	Production Qty	Energy intensity MMBtu/unit	Energy used (MMBtu) for all production line
Tape	1	Linear ft.	2007	2016	1,000,000	5,000	200.00	1,000,000
Shingles	2	pounds	2007	2017	800,000	4,000	200.00	800,000
Paper	3	tons	2008	2017	350,000	2,000	175.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
					2,150,000			1,800,000

ntensity Assessment Matrix

Current Year	2008
Location	Los Angeles
E-mail	cschults@abc.com
Phone	805-999-4356

nge Calculations (a)

2007			2	2008		
First Year			Second Year			
Production Qty	Energy intensity MMBtu/unit	Improvement in energy intensity	Energy used (MMBtu) for all production line	Production Qty	Energy intensity MMBtu/unit	Improvement in energy intensity
5,000	200.00	0.00%	980,000	5,000	196.00	2.00%
4,000	200.00	0.00%	780,000	4,000	195.00	2.50%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
			1,760,000			

Energy I

Company Name	ABC Corporation
Plant	Manufacturing
Contact Name	Charles Schultz
Address	1234 Main Street, Los Angeles, 92645
Comments	

Worksheet for Energy Intensity Cha

Base Line Data

								1
Product	Production Line	Production Units Description	Production Line Baseline Year	Production Line Drop Out Year	Energy used (MMBtu) for all production line	Production Qty	Energy intensity MMBtu/unit	Energy used (MMBtu) for all production line
Tape	1	Linear ft.	2007	2016	1,000,000	5,000	200.00	1,000,000
Shingles	2	pounds	2007	2017	800,000	4,000	200.00	800,000
Paper	3	tons	2008	2017	350,000	2,000	175.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
							0.00	
					2,150,000			1,800,000

ntensity Assessment Matrix

Current Year	2008
Location	Los Angeles
E-mail	cschults@abc.com
Phone	805-999-4356

nge Calculations (a)

2007			2	2008		
First Year			Second Year			
Production Qty	Energy intensity MMBtu/unit	Improvement in energy intensity	Energy used (MMBtu) for all production line	Production Qty	Energy intensity MMBtu/unit	Improvement in energy intensity
5,000	200.00	0.00%	1,000,000	5,200	192.31	3.85%
4,000	200.00	0.00%	800,000	4,000	200.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
	0.00	0.00%			0.00	0.00%
			1,800,000			

Energy Intensity Assessment Matrix

Introduction:

This calculator is designed to track progress made in reducing energy intensity in industrial plants. It can be used for mulitple plants or production lines with one or more types of products that use varying amounts of energy per unit production.

The following table gives detailed definitions for each cell or row of the calculator.

User Information

Cell or Row No.		
E3	Company name	Give company name
L3	Current Year for Pledge	Enter the current year from your pledge. Format should be such as : 2008
E4	Participating Plants	Give location, usually city name, for the plant as it is commonly known such as "Toledo, Ohio Plant"
M4	Plant Locations	Provide locations of participating plants
E5	Contact name	Name of the person responsible for completing and/or maintaining the matrix
M5	E-mail	E-mail address for the contact person
E6	Address	Address for the contact person. Give building number, street, city, state and Zip code.
M6	Phone number	Phone number for the contact person.
E7	Comments	Provide information that is pertinent to the data or any other issues.

Energy Intensity Tracking Worksheet

Detail instructions for use of the calculator

Row K	Pledge Year	Enter the actual year such as "2008"
B13 to B22	Product or Plant	Enter name of the each product class or Participating Plant, one in each cell from B13 to B22
C13 to C22	Production Line	Enter an identifying number for each production line within the plant (not requred)
D13 ro D22	Production Units Description	Enter the appropriate production units for each participating product line or plant

E13 to E22	Baseline Year	Report the baseline year for each participating product line or plant
F13 to F22	Final Year	Report the final year that the product line or plant participated in the pledge
G13 to G22	Energy Used	Enter value of energy used in million Btus (MMBtu) for each participating product line or plant. Energy use units may be changed if required but units should be consistent throughout the spreadsheet.
H13 to H22	Production Quantity	Enter value of number of units produced for each product line or plant participant
I13 to I22	Energy Intensity	Energy Intensity is the ratio between the total enegy consumption and the total number of production units for each participating plant or product

Note: The above mentioned definitions should also be used for corresponding cells for each year starting from 1 to 10.

Row 24	Annual Change in Energy Intensity	Cells in this row represent the weighted average change in energy intensity for the corresponding year.
Row 25	Total Change in Energy Intensity	Cells in this row represent the Total Change in Energy Intensity for the Organization over the period examined.

Energy Intensity A

Company Name	ABC Corporation
Plant	Manufacturing
Contact Name	Charles Schultz
Address	1234 Main Street, Los Angeles, 92645
Comments	

Worksheet for Energy Intensity Change Calc

Year		0	2008		1	2009		
		Baseline Year			First year			
Product	Production Units Description	Energy used (MBtu) for all units	No. of units	Energy intensity MBtu/unit	Energy used (MBtu) for all units	No. of units	Energy intensity MBtu/unit	Energy intensity change
Wrenches	Numbers	1,000,000	5,000	200.0000	1,000,000	5,000	200.0000	0.0000
Lubricant	Gallons	800,000	4,000	200.0000	800,000	4,000	200.0000	0.0000
Bolts	Lbs.	350,000	2,000	175.0000	0	0	0.0000	1.0000
Steel	Tons	0	0	0.0000	0	0	0.0000	0.0000
		0	0	0.0000	0	0	0.0000	
		0	0	0.0000	0	0	0.0000	
		0	0	0.0000	0	0	0.0000	
		0	0	0.0000	0	0	0.0000	
		0	0	0.0000	0	0	0.0000	
		0	0	0.0000	0	0	0.0000	
Energy Intensity Change		Base			0.000%			

ssessment Matrix

Base Year	2008
Location	Los Angeles
E-mail	cschults@abc.com
Phone	805-999-4356

ulations

2	2010		3	20
Second year			Third year	
Energy used (MBtu) for all units	No. of units	Energy intensity MBtu/unit	Energy used (MBtu) for all units	No. of units
980,000	5,000	196.0000	980,000	5,000
780,000	4,000	195.0000	780,000	4,000
0	0	0.0000	350,000	2,000
0	0	0.0000	0	0
0	0	0.0000	0	0
0	0	0.0000	0	0
0	0	0.0000	0	0
0	0	0.0000	0	0
0	0	0.0000	0	0
0	0	0.0000	0	0
444.318%			370.616%	

Energy Baseline Assessment Matrix

Company Name	ABC Corporation	Base Year	2008
Plant	New Plant	Location	Toledo, Ohio
Contact Name	Charles Berg	E-mail	cberg@abccorp.com
Address	1234 Main Street, Toledo Ohio 43600	Phone	419-345-9000
Comments	Energy intensity reduction records		

Option 1: Worksheet based on Sales $ for Individual Units or Products

Note : Alternatively The Sales $ can be substituted by Value Added for each product also.

Energy Intensity Calculation - Based on Value of Shipment for Each Product			Indexed to producer price index			Yes	State YES or NO
Year	1	2008	2	2009	3	2010	4	2011
Product	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit
Bolts	1.00	1,000,000	0.99	1,000,000	0.99	1,100,000	0.97	1,000,000
Sockets	1.00	2,000,000	0.98	2,000,000	0.98	2,200,000	0.96	2,000,000
C					0.95	1,000,000	0.93	950,000
D					0.97	1,200,000	0.95	1,000,000
E					0.95	1,300,000	0.93	1,400,000
F					0.97	1,000,000		
G								
H								
I								
J								
Intensity Change (Below) at the end of 10 years	Index	1.000		0.983		0.970		0.952

19.9% ↘	Total Energy Intensity Change	Base	1.67%	3.03%	4.76%
	Energy Intensity	Base	98.33	96.97	95.24
↗ 21.8%	Change from previous year	Base	1.67%	1.38%	1.79%
Combined Multi-Year Intensity Change (Above)					

Energy Baseline Assessment Matrix

Option 2 :	Plant Name :	#REF!		Baseline Date :	#REF!			
	Worksheet based on Energy use per unit of Individual Units or Products							
	Energy Intensity Calculation - Based on Each Product's Energy Use							
Year	1	2008	2	2009	3	2010	4	2011
Product	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units
Bolts	1.00	100,000	0.99	100,000	0.95	120,000	0.92	120,000
Sockets	1.00	10,000	0.98	10,000	0.94	15,000	0.91	15,000
C								
D								
E								
F								
G								
H								
I								
J								
Intensity Change (Below) at the end of 10 years	Index	1.0000		0.9891		0.9493		0.9209
20.9% ↘	Total Energy Intensity Change	Base		1.09%		5.07%		7.91%
	Energy Intensity	Base		98.91		94.93		92.09
↗ 23.1%	Change from previous year	Base		1.09%		4.02%		3.00%

Combined Multi-Year Intensity Change (Above)

Energy Baseline Assessment Matrix

Option 3 :	Plant Name :	#REF!	Baseline Date :	#REF!

Worksheet based on Energy use - All Units for each Individual Units or Products

Energy Intensity Calculation - Based on All Units' Energy Use

Year	1	2008	2	2009	3	2010	4	2011
Product	Energy used (MBtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units
Bolts	100,000	100,000	105,000	109,000	109,000	114,450	103,550	120,173
Sockets	10,000	10,000	11,000	10,500	10,200	11,500	9,996	11,500
C								
D								
E								
F								
G								
H								
I								
J								
Index	1.0000		0.9707		0.9464		0.8623	
Total Energy Intensity Change	Base		2.93%		5.36%		13.77%	
Energy Intensity	Base		97.07		94.64		86.23	
Change from previous year	Base		2.93%		2.50%		8.88%	

Intensity Change (Below) at the end of 10 years

28.2%

32.2%

Combined Multi-Year Intensity Change (Above)

Energy Baseline Assessment Matrix

Company Name	Company Name	ABC Corporation	Base Year	2008
Plant	Plant	New Plant	Location	Toledo, Ohio
Contact Name	Contact Name	Charles Berg	E-mail	cberg@abccorp.com
Address	Address	1234 Main Street, Toledo Ohio 43600	Phone	419-345-9000
Comments	Comments	Energy intensity reduction records		

Option 1: Worksheet based on Sales $ for Individual Units or Products

Energy Intensity Ca	Energy Intensity Calculation - Based on Value of Shipment for Each Product		Indexed to producer price index		Yes	State YES or NO
Year	5	2012	6	2013	7	2014	8	2015
Product	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit
Bolts	0.96	1,000,000	0.92	1,200,000	0.90	1,000,000	0.87	1,000,000
Sockets	0.95	2,000,000	0.93	1,300,000	0.89	1,000,000	0.88	1,000,000
C	0.92							
D	0.94	3,000,000						
E	0.92	1,000,000						
F	-							
G	-							
H	-							
I	-							
J								
Intensity Change (Below) at the end of 10 years	Index	0.940		0.925		0.898		0.873

19.9% ↘	Total Energy Intensity Change	5.99%	7.51%	10.18%	12.75%
	Energy Intensity	94.01	92.49	89.82	87.25
↗ 21.8%	Change from previous year	1.30%	1.62%	2.88%	2.86%
Combined Multi-Year Intensity Change (Above)					

Energy Baseline Assessment Matrix

Option 2 :	Plant Name :		#REF!		Baseline Date :		#REF!	
	Worksheet based on Energy use per unit of Individual Units or Products							
	Energy Intensity Calculation - Based on Each Product's Energy Use							
	Year	5	2012	6	2013	7	2014	8	2015
	Product	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units
	Bolts	0.90	130,000	0.89	150,000	0.84	150,000	0.82	120,000
	Sockets	0.89	20,000	0.88	21,000	0.85	23,000	0.83	23,000
	C								
	D								
	E								
	F								
	G								
	H								
	I								
	J								
Intensity Change (Below) at the end of 10 years	Index	0.9022		0.8843		0.8413		0.8248	
20.9% ↘	Total Energy Intensity Change	9.78%		11.57%		15.87%		17.52%	
	Energy Intensity	90.22		88.43		84.13		82.48	
↗ 23.1%	Change from previous year	2.02%		1.99%		4.86%		1.97%	

Combined Multi-Year Intensity Change (Above)

Energy Baseline Assessment Matrix

Option 3 :	Plant Name :	#REF!	Baseline Date :	#REF!

Worksheet based on Energy use - All Units for each Individual Units or Products

Energy Intensity Calculation - Based on All Units' Energy Use

Year	5	2012	6	2013	7	2014	8	2015
Product	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units
Bolts	100,444	123,778	97,430	127,491	96,456	128,766	95,491	130,054
Sockets	9,396	11,500	8,832	11,500	8,303	11,500	7,804	11,500
C								
D								
E								
F								
G								
H								
I								
J								
Index	0.8120		0.7645		0.7469		0.7297	
Total Energy Intensity Change	18.80%		23.55%		25.31%		27.03%	
Energy Intensity	81.20		76.45		74.69		72.97	
Change from previous year	5.84%		5.84%		2.31%		2.29%	

Intensity Change (Below) at the end of 10 years

28.2%

32.2%

Combined Multi-Year Intensity Change (Above)

Energy Baseline Assessment Matrix

Company Name	Additional Information
Plant	
Contact Name	
Address	
Comments	

Option 1: Worksheet based on Sales $ for Individual Units or Products

Energy Intensity Ca

Year	9	2016	10	2017
Product	Energy used (MBtu/ unit)	Sales for Individual unit	Energy used (MBtu/ unit)	Sales for Individual unit
Bolts	0.85	1,200,000	0.82	1,300,000
Sockets	0.84	1,000,000	0.79	2,500,000
C				
D				
E				
F				
G				
H				
I				
J				
Intensity Change (Below) at the end of 10 years	Index	0.848		0.801

19.9% ↘	Total Energy Intensity Change	15.20%	19.87%
	Energy Intensity	84.80	80.13
↗ 21.8%	Change from previous year	2.81%	5.51%
Combined Multi-Year Intensity Change (Above)			

Energy Baseline Assessment Matrix

Option 2 :	#REF!	#REF!	#REF!	#REF!
	Worksheet based on Energy use per unit of Individual Units or Products			
	Energy Intensity Calculation - Based on Each Product's Energy Use			
Year	9	2016	10	2017
Product	Energy used (MBtu/ unit)	No. of units	Energy used (MBtu/ unit)	No. of units
Bolts	0.81	130,000	0.79	140,000
Sockets	0.81	20,000	0.79	18,000
C				
D				
E				
F				
G				
H				
I				
J				

Intensity Change (Below) at the end of 10 years	Index	0.8072	0.7910
20.9% ↘	Total Energy Intensity Change	19.28%	20.90%
	Energy Intensity	80.72	79.10
↗ 23.1%	Change from previous year	2.13%	2.01%

Combined Multi-Year Intensity Change (Above)

Energy Baseline Assessment Matrix

Option 3 :	#REF!	#REF!	#REF!	#REF!
	Worksheet based on Energy use - All Units for each Individual Units or Products			
	Energy Intensity Calculation - Based on All Units' Energy Use			
Year	9	2016	10	2017
Product	Energy used (Mbtu) for all units	No. of units	Energy used (Mbtu) for all units	No. of units
Bolts	95,109	130,054	94,729	130,054
Sockets	7,336	11,500	6,896	11,500
C				
D				
E				
F				
G				
H				
I				
J				
Intensity Change (Below) at the end of 10 years	Index	0.7237		0.7179
28.2%	Total Energy Intensity Change	27.63%		28.21%
	Energy Intensity	72.37		71.79
32.2%	Change from previous year	0.82%		0.80%

Combined Multi-Year Intensity Change (Above)